novozymes®
Rethink Tomorrow

Ref.: 2014-11016-01
CWCh/PNi

An application
to amend the *Australia New Zealand Food Standards Code* with a

Serine protease from *Fusarium oxysporum* produced by a genetically modified strain of *Fusarium venenatum*

Novozymes A/S
July 16th 2014

[redacted]

Regulatory Affairs

Novozymes A/S
Krogshøjvej 36
DK-2880 Bagsværd
Denmark

Telephone:
+45 4446 0000
Telefax:
+45 4446 4647

E-mail:
[redacted]
Internet:
www.novozymes.com

CVR number:
10 00 71 27

Table of Contents

EXECUTIVE SUMMARY

The present application seeks to amend Standard 1.3.3. - Processing Aids of the Australia New Zealand Food Standards Code (the Code) to approve a serine protease enzyme preparation produced by Novozymes A/S.

Proposed change to Standard 1.3.3 - Processing Aids

The table to clause 17, Permitted enzymes of Microbial Origin, is proposed to be amended to include a serine protease from *Fusarium oxysporum* produced in a genetically modified strain of *Fusarium venenatum.*

The application is applied for assessment by the general procedure.

Description of enzyme preparation

The enzyme is a serine protease with trypsin specificity (EC 3.4.21.4), which hydrolyses peptide bonds in proteins resulting in smaller proteins and peptides of variable lengths.

The enzyme is produced by submerged fermentation of a *Fusarium venenatum* microorganism expressing a serine protease from *Fusarium oxysporum*.

The commercial enzyme product, TL1 conc BG, is a granulated enzyme preparation and complies with the JECFA recommended purity specifications for food-grade enzymes.

The producing micro-organism, *Fusarium venenatum*, is absent from the commercial enzyme product.

Use of the enzyme

The serine protease is used as processing aid for partial or extensive hydrolysis of animal and vegetable proteins (such as casein, whey, gluten, and proteins from soy, corn, rice, peas, lentils, meat and fish) to be further used as ingredients in a variety of beverage and food products.

The enzyme is added during the food production process, where it performs its function. In the final food product the enzyme protein is denatured by high temperature, which means that the enzyme does not have any action or any function in the final food.

Benefits

Since the 1970s proteases have been increasingly used in various industrial food applications for hydrolysis of proteins. Protein hydrolysates can also be produced by acid and alkaline hydrolysis as well as by heat treatment.

As compared with these alternatives, the benefits of the action of serine protease are:

- Higher yield of soluble proteins and peptides
- Mild process conditions
- Reduced amounts of salts compared to acid hydrolysed protein
- Protein hydrolysate with controlled peptide profile due to specificity of the enzyme
- Increased digestibility of proteins

Safety evaluation

The safety of the strain has been thoroughly assessed:

- The enzyme preparation complies with international specifications ensuring absence of contamination by toxic substances or noxious microorganisms.
- The production organism has a long history of safe use as production strain for food grade enzyme preparations and does not produce any harmful metabolites as demonstrated by analysis.
- The genetic modifications in the production strain are well-characterized and safe and the integrated DNA (enzyme gene) has been shown to be stably maintained.
- Sequence homology assessment to known allergens and toxins shows that oral intake of the serine protease does not pose any food allergenic or toxic concern.
- Two mutagenicity studies show that the food enzyme is unable to damage the genetic material of living organisms.
- Two oral toxicological studies in rodents (a 90-days study and a 25-days study), where groups of animals were given the food enzyme at very high doses, show, that all dose levels were generally well tolerated.

Furthermore, the safety of the serine protease preparation has been confirmed or is under consideration by external expert groups, as follows:

- Denmark: The enzyme preparation has been safety assessed according to the Guidelines for the evaluation of food enzymes (the Scientific Committee for Food, Commission of the European Communities, 1992). This resulted in the authorisation of the enzyme product by the Danish authorities.
- France: The enzyme has been positively evaluated by the French Authorities and has been included in The French order of October 19, 2006 on use of processing aids in the manufacture of certain foodstuff, as amended
- JECFA: The enzyme preparation has been positively evaluated in the 76th meeting of JECFA and has been allocated an Acceptable Daily Intake (ADI) “not specified”.
- Mexico: The enzyme has been positively evaluated by COFEPRIS, however the amendment to the positive list is awaiting the next official update.
- Brazil: The enzyme has been positively evaluated by ANVISA, however the amendment to the positive list is awaiting the next official update, expected in 2014.

Conclusion

Based on the Novozymes safety evaluation (confirmed by the above-mentioned bodies), we respectfully request the inclusion of this enzyme in the Table to clause 17 of Standard 1.3.3.; Permitted enzymes of Microbial origin.

INTRODUCTION

The present dossier describes a serine protease enzyme preparation produced by submerged fermentation of a *Fusarium venenatum* microorganism, expressing a serine protease gene from *Fusarium oxysporum.* The Novozymes A/S trade name used for the serine protease enzyme preparation is TL1 conc BG.

The serine protease is used as processing aid for partial or extensive hydrolysis of animal and vegetable proteins (such as casein, whey, gluten, and proteins from soy, corn, rice, peas, lentils, meat and fish) to be further used as ingredients in a variety of beverage and food products.

The enzyme is a serine protease with trypsin specificity (EC 3.4.21.4), which hydrolyses peptide bonds in proteins with preferential cleavage at arginine and lysine resulting in smaller proteins and peptides of variable lengths.

The following sections describe in detail the construction of the genetically modified *Fusarium venenatum* used as the production organism, the production process, the product specification, the application of the enzyme preparation and finally the safety evaluation of the product including the toxicology program, which has been carried out confirming the safety of the product for its intended use.

The documentation has been elaborated according to the Application Handbook from Food Standards Australia New Zealand as of September 1st 2013, applied as relevant for an enzyme application, i.e. outlining the following section:

- SECTION 3.1 – GENERAL REQUIREMENTS
- SECTION 3.3.2 – PROCESSING AIDS, subsections A, C, D, E, F.

NB! When reading this document it should be noticed that in some reports, the serine protease enzyme preparation is described by its internal production batch codes (PPF 26813 and PPF 32126).

SECTION 3.1, GENERAL REQUIREMENTS

3.1.1 Executive Summary

An Executive Summary is provided as a separate copy together with this application.

3.1.2 Applicant details

(a) ***Applicant's name/s***
[redacted]

(b) ***Company/organisation name***
Novozymes Australia Pty Ltd

(c) ***Address (street and postal)***
3/22 Loyalty Road PO Box 4942
2151 NORTH ROCKS NSW, Australia

(d) ***Telephone number***
[redacted]

(e) ***Email address***
[redacted]

(f) ***Nature of applicant's business***
Biotechnology

(g) ***Details of other individuals, companies or organisations associated with the application.***
Dossier prepared by:

[redacted]
Senior Regulatory Specialist
Regulatory Affairs
Krogshoejvej 36
2880 Bagsvaerd Denmark
[redacted]

3.1.3 Purpose of the application

This application is submitted to provide for amendment of the Australia New Zealand Food Standards Code - Standard 1.3.3 - Processing Aids, Table to clause 17 to include a serine protease from *Fusarium oxysporum* expressed by a genetically modified strain of *Fusarium venenatum.*

3.1.4 Justification for the application

The need for the proposed change

The Table to clause 17 of Standard 1.3.3 contains a list of permitted enzymes of microbial origin. There are a number of approved proteases, including serine endopeptidases (EC 3.4.21.14 and EC 3.4.21.26) from different sources. None of the listed proteases have trypsin specificity.

Table to clause 15 of Standard 1.3.3 contains a list of permitted enzymes of animal origin. Among the listed enzymes is trypsin (EC 3.4.21.4) derived from porcine or bovine pancreas.

None of the Tables of Standard 1.3.3 lists a serine protease with trypsin specificity (EC 3.4.21.4) produced by a microbial source.

The enzyme has been evaluated for its safety and technological need and is authorised by Denmark and France.

The advantages of the proposed change over the status quo

Since the 1970s proteases have been increasingly used in various industrial food applications for hydrolysis of proteins. Protein hydrolysates can also be produced by acid and alkaline hydrolysis as well as by heat treatment.

As compared with these alternatives, the benefits of the action of serine protease are:

- Higher yield of soluble proteins and peptides
- Mild process conditions
- Reduced amounts of salts compared to acid hydrolysed protein
- Protein hydrolysate with controlled peptide profile due to specificity of the enzyme
- Increased digestibility of proteins

The serine protease object to this dossier has preferential cleavage at arginine and lysine, thereby providing an alternative to using animal derived trypsin.

The resulting peptides are used as ingredients in a variety of food products. The applicability of use as food ingredients are often determined by the functional properties of the processed proteins which to a large extent are governed by their molecular size and their distribution of hydrophobic amino acids. Enzymatic processing of proteins using selected proteases to hydrolyse specific peptide bonds is widely used to produce peptides with e.g. increased solubility, modified viscosity and altered foaming, gelling and emulsifying properties. Processing of proteins is also used to improve the digestibility of proteins and thereby the nutritional value of the protein source.

Examples of current applications are protein fortification, seeking improved functionality and flavour of hydrolysed protein in dietary drinks, dry blended beverages and nutritional bars, and infant food, seeking improved digestibility of vegetable based formulas and reduced allergenicity of cow milk based formulas. Further, proteases may be used for production of yeast extracts and for production of hydrolysed vegetable proteins to be further used in savoury snacks, soups and bouillon cubes, where especially flavour formation and lower salt content is of interest.

Use of enzymes in protein modification has been summarised by Nielsen (2010[7]). In conclusion the use of proteases for modification of protein properties to produce protein ingredients with improved properties is well-established in the market. The expansion of the market with new innovative hydrolysed protein products is to a large extent dependent on the availability of enzymes. It is evident that controlling the properties of the peptides is a very complex task and may require a large palette of enzymes covering a range of different specificities. As stated above, only trypsin from animal origin is currently approved in Australia. Animal derived enzymes are not suitable for use in foods targeted for the Halal markets. The microbial trypsin in TL1 conc BG provides an interesting alternative to animal derived trypsin.

As a response to international customer interests, registration activities have been done or are in progress or planned, globally. The serine protease preparation is approved in Denmark and France and is going to be approved in Brazil and Mexico with the next update of the positive list.

An Australian customer support letter is attached as Appendix 1.1.

A. Regulatory impact information

The application is not likely to place costs or regulatory restrictions on industry or consumers. Inclusion of the serine protease enzyme in Standard 1.3.3 will provide the food industry with a microbial trypsin solution giving potential customers the opportunity to produce protein hydrolysates with the desired functional properties. For government, the burden is limited to necessary activities for a variation of Standard 1.3.3.

3.1.5 Information to support the application

Public health and safety issues related to the proposed change

No public health and safety issues related to the proposed change are foreseen. As outlined in sections D, E, F, the serine protease is produced by submerged fermentation of a genetically modified *Fusarium venenatum* strain.

- The enzyme preparation complies with international specifications ensuring absence of contamination by toxic substances or noxious microorganisms.
- The production organism has a long history of safe use as production strain for food grade enzyme preparations and does not produce any harmful metabolites as demonstrated by analysis.
- The genetic modifications in the production strain are well-characterized and safe and the integrated DNA (enzyme gene) has been shown to be stably maintained.
- Sequence homology assessment to known allergens and toxins shows that oral intake of the serine protease does not pose any food allergenic or toxic concern.
- Two mutagenicity studies show that the food enzyme is unable to damage the genetic material of living organisms.
- Two oral toxicological studies (a 90-days study and a 25-days study), where groups of animals were given the food enzyme at very high doses, show, that all dose levels were generally well tolerated.

Consumer choice issues related to the proposed change

No consumer choice issues related to the proposed change are foreseen. The enzyme is to be used as processing aid for partial or extensive hydrolysis of animal and vegetable proteins (such as casein, whey, gluten, and proteins from soy, corn, rice, peas, lentils, meat and fish) to be further used as ingredients in a variety of beverage and food products.

Evidence that the food industry generally or other specific companies have an interest in, or support, the proposed change to the Code.

The support letter from an Australian customer is attached as Appendix 1.1.

3.1.6 Assessment procedure

Because the application is for a protease variant and different proteases already have been included in the Code, it is considered appropriate that the assessment procedure is characterized as “General Procedure, Level 1”.

3.1.7 Confidential commercial information (CCI)

Detailed information on the construction and characteristics of the genetically modified production strain is provided in Appendix 6. A summary of this information is given in section E. The formal request for treatment of selected elements in Appendix 6 as confidential commercial information (CCI) is included as Appendix 1.2.

3.1.8 Exclusive capturable commercial benefit (ECCB)

This application is not expected to confer an Exclusive Capturable Commercial Benefit.

3.1.9 International and other national standards

A. International Standards

Use of serine protease as processing aids for hydrolysis of proteins during processing of protein containing food and food ingredients is not restricted by any Codex Alimentarius Commission (Codex) Standards.

B. Other national standards or regulations

Use of serine protease as processing aids for hydrolysis of proteins during processing of protein containing food and food ingredients is not generally restricted by national standards or regulations.

3.1.10 Statutory declaration

The Statutory Declaration is included as Appendix 1.3.

3.1.11 Checklist

This application concerns an enzyme product intended to be used as a processing aid. Therefore, the relevant documentation according to the Application Handbook from Food Standards Australia New Zealand as of September 1st 2013, are the following sections:

- SECTION 3.1 – GENERAL REQUIREMENTS
- SECTION 3.3.2 – PROCESSING AIDS, subsections A, C, D, E, F

Accordingly, the checklist for General Requirements as well as the Processing Aids part of the checklist for Standards related to Substances added to Food was used and is included as Appendix 1.4 and 1.5.

SECTION 3.3, STANDARDS RELATED TO SUBSTANCES ADDED TO FOOD

3.3.2 PROCESSING AIDS

The serine protease enzyme preparation described in this application is representative of the commercial food enzyme product, TL1 conc BG, on which approval is sought.

A. Technical information on the processing aid

A.1. Information on the type of processing aid

The serine protease enzyme preparation belongs to the category of processing aids described in Clause 17 of Standard 1.3.3., Enzymes of microbial origin.

The serine protease enzyme preparation is used for hydrolysis of proteins during processing of protein containing foods and food ingredients.

The active enzyme is a serine protease (EC 3.2.21.4) that catalyses the hydrolysis of peptide bonds in proteins with preferential cleavage at arginine and lysine. The reaction products are smaller proteins and peptides of variable lengths.

The enzyme is used for partial or extensive hydrolysis of animal and vegetable proteins such as casein, whey, gluten, and proteins from soy, corn, rice, peas, lentils, meat and fish.

In principle, the enzymatic conversion of proteins with the help of serine protease can be of benefit in the processing of all foods and food ingredients which naturally contain the substrate.

The maximum recommended dosage for production of solid and liquid food is 10800 KMTU/kg protein dry matter.

TL1 conc BG is useful when a moderate, controlled hydrolysis is desirable. Such moderate hydrolysis is well known to improve general functionality e.g. emulsifying capacity, solubility, foaming etc. compared to the native protein (Gauthier and Pouliot, 2003[1] and van der Ven et al, 2002[2]).

Figure 1 shows the effect of TL1 conc BG on milk protein (5% whey concentrate) when added in a dosage of 10800 KMTU/kg protein. The hydrolysis reaction was performed as a function of time (T=120 min), at 52 ºC and pH 7.5. The Degree of Hydrolysis (%DH) obtained was around 6.4. On average basis a %DH in the range of 6-10 is well known to result in the above mentioned functionalities.

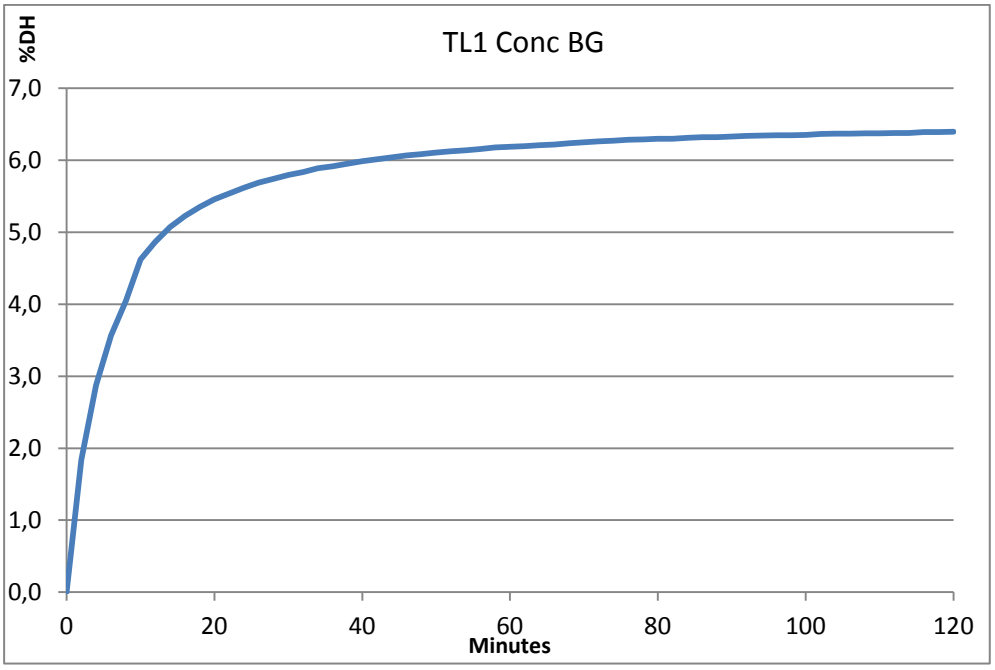


Fig 1. Degree of hydrolysis (%DH) as a function of time (T= 0-120 min).
Enzyme dosage: 10800 KMTU/kg protein; substrate: 5 % whey concentrate; pH 7.5; temp. 52°C.

A.2. Information on the identity of the processing aid

A.2.1. Enzyme

Generic name:	Serine protease
IUBMB nomenclature:	Trypsin
IUBMB No.:	EC 3.4.21.4
CAS No.:	9002-07-7

A.2.2. Enzyme preparation

Commercial name: TL1 conc BG

The serine protease enzyme preparation is available as high concentrated enzyme granulate.

The Product Data Sheet for TL1 conc BG is enclosed as Appendix 2.1.

The typical composition of TL1 conc BG is shown below:

	TL1 conc BG
Enzyme solids (TOS[a])	Approx. 95%
Water	approx. 5%

[a] TOS = Total Organic Solids, defined as: 100% - water - ash - diluents

TL1 conc BG is produced with an activity of approx. 1500 KMTU/g. The Novozymes method used to determine the KMTU activity is enclosed in Appendix 3.1.

The serine protease hydrolyses the chromophoric substrate Ac-Arg-p-nitro-anilide (Ac-Arg-pNA). The liberated pNA produces an absorption increase at 405 nm, which is proportional to enzyme activity.

A.2.3. Host organism

The host organism designated *F. venenatum* WTY842-1-11, was derived from parental strain A3/5 (=ATCC20334), a natural isolate. The taxonomic classification is as followed:

Name:	*Fusarium venenatum*
Class:	Sordariomycetes
Order:	Hypocreales
Family:	Nectriaceae
Genus:	*Fusarium*
Species:	*venenatum*

For a more detailed description of the host organism and the genetic modifications, please see section E.

A.2.4. Donor organism

The serine protease gene is derived from *Fusarium oxysporum.*

For a more detailed description of the donor and the donor gene, as well as donor for promoter and terminator, please see section E.

A.3. Information on the chemical and physical properties of the processing aid

The active enzyme is a serine protease (EC 3.4.21.4) used for the hydrolysis of proteins during processing of protein containing foods and food ingredients.

No reaction products, which could not be considered normal constituents of the diet, are formed during the production or storage of the enzyme treated food.

TL1 conc BG is available as a high concentrated granulate.

The protease is used as a processing aid in the manufacture of foods and food ingredients. The enzyme is denatured by high temperatures used in the manufacturing process and does not have any action or any function in the final food product.

A.4. Manufacturing process

The manufacturing process is composed of a fermentation process, a purification process, a formulation process and finally a quality control of the finished product, as outlined by Aunstrup et al. 1979[3].

This section describes the processes used in manufacturing of the serine protease enzyme product.

The enzyme preparation is manufactured in accordance with current Good Manufacturing Practices, Food (Appendix 4.1). The quality management system used in the manufacturing process complies with ISO 9001:2008 (Appendix 4.2).

The raw materials are Food Grade Quality and have been subjected to appropriate analysis to ensure their conformity with the specifications.

A.4.1. Fermentation

The serine protease is produced by submerged fed-batch pure culture fermentation of the genetically modified strain of *Fusarium venenatum,* described in section E.

A.4.1.1. Raw materials for fermentation

The production strain is grown in a medium consisting of compounds providing an adequate supply of carbon and nitrogen and other nutrients necessary for growth. The choice of raw materials used in the fermentation process (the feed, the seed fermenter, the main fermenter and dosing) is listed below.

Potable water
Carbohydrates: (e.g. sucrose, maltose syrup, glucose, starch hydrolysates)
Vegetable protein: (e.g. potato protein, ammonia, soy bean meal, yeast extract)
Salts: (e.g. ammonium sulphate, magnesium sulphite, potassium sulphate
Other nutrients: Trace metals ($NiCl_2$, $MnSO_4$, $FeSO_4$, $CuSO_4$, $ZnSO_4$)
pH adjustment agents: (e.g.citric acid, phosphoric acid, sodium hydroxide, ammonia)
Antifoaming agents: (if necessary, e.g. polypropylene glycol, polyalkylene glycol)

A.4.1.2. Hygienic precautions

All equipment is designed and constructed to prevent contamination by foreign micro-organisms.

All valves and connections not in use for the fermentation are sealed by steam at more than 120°C.

After sterilization a positive pressure of more than 0.2 atmosphere is maintained in the fermentation tank.

The air used for aeration is sterilized by passing a sterile filter.

The inside of each fermentation tank is cleaned between fermentations by means of a high-pressure water jet and inspected after the cleaning procedures have been completed.

A.4.1.3. Preparation of the inoculum

The inoculum flask containing the prepared medium is autoclaved and checked. Only approved flasks are used for inoculation.

The stock culture suspension is injected aseptically into the inoculum flask and spread onto the medium in the flask. Once growth has taken place in the inoculum flask (typically after 10-21 days), the following operations are performed:

- Strain identity and traceability: ampoule number is registered
- Microbial purity: a sample from the inoculum flask is controlled microscopically for absence of microbial contaminants.

When sufficient amount of biomass is obtained and when the microbiological analyses are approved, the inoculum flask can be used for inoculating the seed fermentor.

A.4.1.4. The seed fermentation

The raw materials for the fermentation medium are mixed with water in a mixing tank. The medium is transferred to the seed fermenter and heat sterilized (e.g. 123°C / 45 min).

The seed fermentation tank is inoculated by transferring aseptically a suspension of cells from the inoculum flask.

The seed fermentation is run aerobically (sterile airflow), under agitation. The overpressure is kept above 0.2 atmosphere at all times, to prevent contamination.

Once a sufficient amount of biomass has developed, microbiological analyses are performed to ensure absence of contamination. The seed fermentation can then be transferred to the main fermentation tank.

A.4.1.5. The main fermentation

The raw materials for the medium are mixed with water in a mixing tank. The medium is transferred to the main fermenter and heat sterilized (e.g. 123°C / 90 min). If necessary, the pH is adjusted after sterilization, with sterile pH adjustment solutions.

The fermentation in the main tank is run as normal submerged fed-batch fermentation.

The main fermentation is run aerobically (sterile airflow), under vigorous agitation. The overpressure is kept above 0.2 atmosphere at all times, to prevent contamination. The fermentation is run at a well-defined temperature.

During the fermentation sterile fermentation medium is fed aseptically. Feeding is started when pH increases above its set point. The feed rate is controlled by oxygen fluctuations and adjusted to avoid accumulation of carbohydrates.

Other parameters are measured at regular intervals

- Dissolved oxygen
- Refractive index
- Enzyme productivity

Samples are also taken at regular intervals to check absence of microbial contamination.

A.4.2.

The recovery process is a multi-step operation designed to separate the enzyme from the microbial biomass and partially purify, concentrate, and stabilize the food enzyme.

The steps of this process involve a series of typical unit operations:

- Pre-treatment
- Primary separation
- Filtration
- Concentration
- Filtration

A.4.2.1. Raw materials for recovery

The raw materials typically used in the recovery process are as follows:

Potable water
Filter aids: Diatomaceous earth
Acids and bases for pH adjustment: Acetic acid, sodium hydroxide
Pre-treatment: Calcium chloride

A.4.2.2. Pre-treatment

To facilitate the separation, Calcium chloride is used in a pH-controlled process.

A.4.2.3. Primary separation

The cell mass and other solids are separated from the broth by filter press filtration. The biomass and any precoat/filter aid are separated from the fermentation broth and transferred to the biomass waste system.

The primary separation is performed at well-defined pH and temperature range.

A.4.2.4. Filtration

For removal of residual cells of the production strain and as a general precaution against microbial degradation, filtration on dedicated germ filtration media is applied.

The filtrations are performed at well-defined pH and temperature intervals, and result in an enzyme concentrate solution free of the production strain and insoluble substrate components from the fermentation.

A.4.2.5. Concentration

Ultrafiltration is applied for concentration and further purification. The ultrafiltration is applied to fractionate high molecular weight components (enzymes) from low molecular weight components and is used to increase the activity/dry matter ratio.

The pH and temperature are controlled during the concentration step, which is performed until the desired activity and activity/dry matter ratio has been obtained.

A.4.2.6. Final Filtration

A polish filtration is performed to remove any precipitations followed by a final germ filtration. Both filtration steps are performed at low temperatures.

After the filtration pH is adjusted by addition of NaOH or Acetic acid and the concentrate is cooled.

4.2.7. Final Concentration and Granulation

Further concentration is carried out by evaporation and/or ultra filtration. Finally, the product is spray dried.

A.4.2.8. Process control

Apart from the process controls performed during the various fermentation steps and described above, the following microbial controls are also performed.

Samples are withdrawn from both the seed fermenter and the main fermenter:
a) before inoculation
b) at regular interval during cultivation
c) before transfer/harvest

The samples during all steps are examined by:
a) microscopy
b) plating culture broth on a nutrient agar and incubating for 24-48 hours.

Growth characteristics are observed macroscopically and microscopically.

During the microbiological control steps, the number of foreign micro-organisms should be insignificant. The fermentation parameters, i.e. enzyme activity, temperature and oxygen as well as pH are also monitored closely. A deviation from the normal course of the fermentation may signal a contamination.

If a significant contamination develops, the fermentation is terminated. The fermentation is regarded as “significantly contaminated” if two independent samples show presence of contaminating organisms after growth on nutrient agar.

Any contaminated fermentation is rejected for enzyme preparations to be used in a food grade application.

A.5. Specification for identity and purity

The serine protease enzyme product complies with the purity criteria recommended for Enzyme Preparations in Food, Food Chemical Codex, 8th edition, 2012.

In addition to this, the serine protease enzyme product also conforms to the General Specifications for Enzyme Preparations Used in Food Processing as proposed by the Joint FAO/WHO Expert Committee on Food Additives in Compendium of Food Additive Specifications, available online at: http://www.fao.org/ag/agn/jecfa-additives/search.html?lang=en

Analytical data for an unstandardized representative serine protease batch is shown in the table below. These data show compliance with the purity criteria of the specification.

Control parameter	Unit	Specification	Batch PPF 26813
Serine protease activity	KMTU/g		117
Heavy Metals	ppm	Max 30	5.4
Pb	ppm	Max 5	ND (DL< 0.5)
As	ppm	Max 3	0.229
Cd	ppm	Max 0.5	ND (DL < 0.05)
Hg	ppm	Max 0.5	ND (DL < 0.03)
Total viable count	/g	Not more than 50000	400
Total coliforms	/g	Not more than 30	<10
Enteropathogenic E. coli	/25g	Not detected	ND
Salmonella	/25g	Not detected	ND
Antibiotic activity		Not detected	ND
Production strain	/g	Not detected	ND
DAS (Diacetoxyscirpenol)	ppm	Not detected	ND (DL < 0.020)
Fusarin C	ppm	Not detected	ND (DL < 0.020)
Butenolide	ppm	Not detected	ND (DL < 0.5)

Heavy Metals = Σ of Ag, As, Bi, Cd, Cu, Hg, Mo, Ni, Pb, Sb, Sn
Mycotoxin analyses were performed by the Technical University of Denmark.
ND = Not Detected
DL = Detection Limit

The methods of analysis used to determine compliance with the specifications are enclosed in Appendix 3.

The Product Data Sheet for TL1 conc BG is enclosed in Appendix 2.1.

The typical composition is shown below:

	TL1 conc BG
Enzyme solids (TOS[b])	approx. 95 %
Water	approx. 5 %

TL1 conc BG is produced as a highly concentrated granulated product. It is standardized to a product strength of above 1500 KMTU/g. The Novozymes method used to determine the KMTU activity is enclosed in Appendix 3.1.

[b] TOS = Total Organic Solids, defined as: 100% - water - ash - diluents

TL1 conc BG does not contain known food allergens as detailed in the Product Data Sheet in Appendix 2.1.

The serine protease is not present as particulate matter in the final food as the enzyme is being subjected to a heat denaturation step once the desired degree of hydrolysis is obtained in the protein hydrolysis process.

A.6. Analytical method for detection

The serine protease enzyme preparation is to be used in the food industry as a processing aid. This information is not required in the case of an enzymatic processing aid.

B. Information related to the safety of a chemical processing aid

Not applicable – this application does not concern a chemical processing aid.

C. Information related to the safety of an enzyme processing aid

C.1. General information on the use of the enzyme as a food processing aid in other countries

The serine protease is used as processing aids for hydrolysis of proteins during processing of protein containing food and food ingredients.

Dossiers have been submitted to relevant authorities and expert bodies for evaluation of safety and technological need.

The regulatory status for the serine protease object of this dossier is as follows:

- Denmark: The enzyme preparation has been safety assessed according to the Guidelines for the evaluation of food enzymes (the Scientific Committee for Food, Commission of the European Communities, 1992[4]). This resulted in the authorisation of the enzyme product by the Danish authorities.
- France: The enzyme has been positively evaluated by the French Authorities and has been included in The French order of October 19, 2006 on use of processing aids in the manufacture of certain foodstuff, as amended
- JECFA: The enzyme preparation has been positively evaluated in the 76th meeting of JECFA and has been allocated an Acceptable Daily Intake (ADI) “not specified”.
- Mexico: The enzyme has been positively evaluated by COFEPRIS, however the amendment to the positive list is awaiting the next official update.
- Brazil: The enzyme has furthermore been positively evaluated by ANVISA, however the amendment to the positive list is awaiting the next official update, expected in 2014.

C.2. Information on the potential toxicity of the enzyme processing aid

(a) Information on the enzyme's prior history of human consumption and/or its similarity to proteins with a history of safe human consumption

A wide variety of enzymes, including proteases, are used in food processing and has a long history of safe use in food (Pariza and Foster, 1983[5]; Pariza and Johnson, 2001[6]).

Enzymatic processing of proteins using selected proteases to hydrolyse specific peptide bonds has been used since the 1970s to produce peptides with improved functional properties (Nielsen, 2010[7]).

Biomass of *Fusarium venenatum* is marketed as QuornTM Mycoprotein (Trinci, 1992)[8] and has been a readily available human food source in England since 1985, and in other European countries more recently. QuornTM Mycoprotein is accepted as GRAS in the US (FDA Agency Response Letter GRAS Notice No. GRN 000091[c]) for use as human food.

Additionally a transformant of *Fusarium venenatum* expressing a heterologous xylanase has also been accepted as GRAS (FDA Agency Response Letter GRAS Notice No. GRN000054[d]) and it received a positive evaluation at the JECFA (Joint FAO/WHO Expert Committee on Food Additives) meeting in 2003 (JECFA 2003[9]).

JECFA has also evaluated the serine protease object of the present dossier and concluded that this food enzyme does not constitute a toxicological hazard (JECFA, 2012[10,11,12]).

(b) Information on any significant similarity between the amino acid sequence of the enzyme and that of known protein toxins

A sequence homology assessment of the serine protease enzyme to known toxins and allergens was conducted.

On basis of the available evidence it is concluded that oral intake of the serine protease is not anticipated to pose any toxicological or food allergenic concern.

The complete search report is enclosed in Appendix 5.1. Assessment of toxicity and allergen risk is enclosed in Appendix 5.2.

Furthermore, as described below, safety studies were performed on the serine protease tox test batches PPF 26813 and PPF 32126, both produced according to the description given in section A.4, omitting stabilization and standardization.

PPF 32126 is identical to PPF 26813 apart from that the water content has been reduced by evaporation in order to increase the enzyme activity and the TOS content in the batch. Consequently, the batch PPF 32126 is about 3 times more concentrated than the original batch PPF 26813.

---

[c] GRAS Notice Inventory: http://www.accessdata.fda.gov/scripts/fcn/fcnNavigation.cfm?rpt=grasListing

[d] GRAS Notice Inventory: http://www.accessdata.fda.gov/scripts/fcn/fcnNavigation.cfm?rpt=grasListing

The following studies were performed:
A summary of the safety studies is enclosed in Appendix 5.3.

Tox test batch PPF 26813:

- Ames Test. Test for mutagenic activity (Appendix 5.4)
- In vitro Chromosome aberration test (Appendix 5.5)
- 90-days oral (gavage) toxicity study in rats (Appendix 5.6)

Tox test batch PPF 32126:

- 25-days oral (gavage) toxicity study in rats (Appendix 5.7)

This 25-day study was performed as a bridging study in order to establish a higher NOAEL for serine protease than what could be obtained in the 13 weeks toxicity study.

The main conclusions of the safety studies can be summarized as follows:

- Serine protease, PPF 26813 did not induce gene mutations in the Ames test, neither in the presence or absence of S-9 mix.
- Serine protease tox test batch PPF 26813 under the conditions of the test, did not induce chromosome aberrations in cultured human blood lymphocytes.
- 90 days of oral (gavage) treatment of rats with serine protease tox test batch PPF 26813 at dose levels up to 581 mg TOS/kg bw/day caused no dose-related findings. The NOAEL of this study is the highest administered dose level, i.e. 581 mg TOS/kg bw/day, equivalent to 618.3 KMTU/kg bw/day
- Daily administration of up to 3605 mg TOS/kg bw/day of serine protease toxbatch PPF 32126 by oral gavage to Sprague Dawley rats for 25 days did not cause any treatment related toxicological effects. Consequently, 3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day) was considered the NOAEL of this study.

Based on the present toxicity data it can be concluded that the serine protease enzyme preparation, represented by batch PPF 26813 and PPF 32126, exhibits no toxicological effects under the experimental conditions described.

C.3. Information on the potential allergenicity of the enzyme processing aid

(a) Information of the source of the enzyme processing aid

The serine protease enzyme is produced by a *Fusarium venenatum* microorganism expressing serine protease from *Fusarium oxysporum*.

Fusarium venenatum is not considered to be pathogenic towards humans and animals (see section D).

(b) Analysis of similarity between the amino acid sequence of the enzyme and that of known allergens

Enzymes have a long history of safe use in food, with no indication of adverse effects or reactions. Moreover a wide variety of enzyme classes (and structures) are naturally present in food.

The allergenicity potential of enzymes was studied by Bindslev-Jensen et al (2006[13]) and reported in the publication: "Investigation on possible allergenicity of 19 different commercial

enzymes used in the food industry". The investigation comprised enzymes produced by wild-type and genetically modified strains as well as wild-type enzymes and protein engineered variants and comprised 400 patients with a diagnosed allergy to inhalation allergens, food allergens, bee or wasp. It was concluded from this study that ingestion of food enzymes in general is not likely to be a concern with regard to food allergy.

Additionally, food enzyme are used in small amounts during food processing resulting in very small amounts of the enzyme protein in the final food. A high concentration generally equals a higher risk of sensitization, whereas a low level in the final food equals a lower risk (Goodman et al, 2008[14]).

A sequence homology assessment of the serine protease enzyme to known toxins and allergens was conducted (Appendix 5.1 and 5.2). It was concluded that oral intake of the serine protease is not anticipated to pose any toxicological or food allergenic concern.

C.4. Safety assessment reports prepared by international agencies or other national government agencies, if available

A document certifying approval of the serine protease object of this dossier by the Danish authorities is enclosed in Appendix 2.2. The safety evaluation was done according to the Guidelines for food enzymes by the Scientific Committee for Food (Appendix 2.3).

The Danish approval, which was given back in 2008, was based on a liquid product variant of the same enzyme product. The commercial name for the liquid product variant was Novozym 12001.

In addition, JECFA has evaluated the serine protease object of the present dossier and concluded that this food enzyme does not constitute a toxicological hazard (JECFA, 2012[10, 11,12]).

D. Additional information related to the safety of an enzyme processing aid derived from a microorganism

D.1. Information on the source microorganism

The serine protease enzyme is produced by a *Fusarium venenatum* microorganism expressing serine protease from *Fusarium oxysporum*. The host organism designated *F. venenatum* WTY842-1-11, was derived from the parental strain A3/5, a natural isolate.

D.2. Information on the pathogenicity and toxicity of the source microorganism

The serine protease production strain is a genetically modified *Fusarium venenatum* strain.
Fusarium venenatum is a relatively newly described species, established by Nirenberg (Nirenberg, 1995[15]) as a separate species within the *F. sambucinum* complex in the Discolor-section of the genus.

In general these fungi are saprophytes found in soil and they are not considered as human pathogens (Austwick, 1984[16]; Joffe, 1986[17]). No reports in the literature connecting any species within the Discolor-section with human or animal infections have been found.

Fusarium venenatum is known to occur in *Zea mays, Humulus lupulus, Pinus radiata, Solanum tuberosum* and *Triticum aestivum* (Nirenberg, 1995[15]). As reported in FDA Agency Response Letter to GRAS Notice No. GRN000054[e], *Fusarium venenatum* strain ATCC 20334 has been tested for plant pathogenicity on potatoes, wheat and barley and was found to be non-pathogenic on these plants.

Strains of *Fusarium venenatum* are known to be potentially producers of mycotoxins within the group of trichothecenes, like diacetoxyscirpenol (DAS) (Miller, 2000[18]; Thrane and Hansen, 1995[19]). Therefore, the gene encoding trichodiene synthase (tri5), which catalyses the first step in the trichodiene biosynthetic pathway, was deleted in the host strain by means of site-directed gene disruption, thereby rendering it incapable of producing secondary metabolites within the trichothecene biosynthetic pathway. The host strain was shown unable to produce DAS and related compounds under different inducing conditions and media (Appendix 6).

Other minor mycotoxins potentially produced by relevant members of the *Fusarium* genus include i) fusarin C and ii) "butenolide" (4-acetamido-4-hydroxy-2-butenoic acid γ-lactone), a metabolite that has been implicated in animal mycotoxicoses (Desjardins and Proctor, 2007[20]). The host strain was shown not to produce either of these metabolites under different inducing conditions studies (Appendix 6).

Absence of production of the secondary metabolites under enzyme production conditions was confirmed for the serine protease production strain. The result for a representative batch of serine protease is shown in Section A.5.

As described in Section C1 and C2, competent safety bodies have assessed the safety of food enzymes produced by *Fusarium venenatum*, which also includes the serine protease object of the present dossier. It was concluded that the evaluated food enzyme does not constitute a toxicological hazard.

The non-pathogenicity and non-toxigenicity of *Fusarium venenatum* is thus strongly supported by the historic record of this organism.

D.3. Information on the genetic stability of the source organism

The inserted recombinant DNA is genetically stable during fermentation, as the inserted DNA is integrated into the chromosome.

The genetic stability of the production strain was tested at large-scale fermentation. The strain stability during fermentation was analyzed by Southern blotting. No instability of the strain was observed (Appendix 6.5).

For a more detailed description of the strain construction and characteristics, please see section E.

---

[e] GRN notice inventory
http://www.accessdata.fda.gov/scripts/fcn/fcnNavigation.cfm?rpt=grasListing

E. Additional information related to the safety of an enzyme processing aid derived from a genetically-modified microorganism

E.1. Information on the methods used in the genetic modification of the source organism

This section contains summarized information on the modifications of the host strain, on the content and nature of the introduced DNA and on the construction of the final production strain, as well as the stability of the inserted gene. The detailed information is provided in Appendix 6.

E.1.2. Host organism

The host strain, designated *Fusarium venenatum* WTY842-1-11, was derived from the parental strain A3/5 (=ATCC20334), a natural isolate. The taxonomic classification is as followed:

Name:	*Fusarium venenatum*
Class:	Sordariomycetes
Order:	Hypocreales
Family:	Nectriaceae
Genus:	*Fusarium*
Species:	*venenatum*

The identification of the parental strain A3/5 has been confirmed by the American Type Culture Collection (ATCC, Virginia, USA).

<u>Genetic modifications</u>

The *F. venenatum* host strain WTY842-1-11 was constructed by transformation of A3/5 with a fragment containing a deleted version of the *F. venenatum tri5* gene, encoding trichodiene synthase, which catalyses the first step in the trichodiene biosynthetic pathway. Therefore, the strain is incapable of producing secondary metabolites within the trichothecene biosynthetic pathway.

E.1.2. Introduced DNA

The introduced DNA originates from full integration of pJRoy75 providing expression of the serine protease gene from *F. oxysporum* under control of the promoter of the *Fusarium venenatum* glucoamylase gene and terminator of the serine protease gene.

The *bar* gene used as selective marker in plasmid pJRoy75, encodes a phosphinothricin acetyltransferase and is derived from *Streptomyces hygroscopicus* strain ATCC21705.

E.1.3. Construction of the Recombinant Microorganism

The recombinant DNA molecule, pJRoy75 was introduced into the *F. venenatum host* strain WTY842-1-11, as described in Appendix 6 by incubating protoplasts with linearized fragment of plasmid pJRoy75. As WTY842-1-11 lacks the *bar* gene, it cannot grow in the presence of phosphinothricin. Transformants were obtained upon the integration of multiple copies of the plasmid into the chromosomal DNA. Selection of transformants was achieved by growing on a medium with phosphinothricin and subsequent screening for expression of the protease. One transformant showed high trypsin-like serine protease activity, and the strain was selected as the final GM production strain.

It was verified by Southern blot analysis that the production strain contains the serine protease gene. As the DNA fragment is integrated by ectopic integration in multiple copies into the genome of the host strain WTY842-1-11 it is not possible to determine the position of integration in the genome or to obtain an accurate genetic map of each individual copy.

Sequence confirmation was performed on plasmid pJRoy75 and is given in Appendix 6.

E.1.4. Antibiotic Resistance Gene

No functional antibiotic resistance genes were left in the strain as a result of the genetic modifications. The absence of antibiotic resistance genes was verified by Southern blot analysis using the relevant antibiotic resistance gene probes.

E.1.5. Stability of the Introduced Genetic Sequences

The presence of the introduced DNA sequences was also determined by Southern hybridization to assess the stability and potential for transfer of genetic material as a component of the safety evaluation of the production microorganism (Appendix 6).

The transforming DNA is stably integrated into the *Fusarium venenatum* chromosome and, as such, is poorly mobilizable for genetic transfer to other organisms and is mitotically stable.

F. Information related to the dietary exposure to the processing aid

F.1. A list of foods or food groups likely to contain the processing aid or its metabolites

The serine protease in this application is able to be used in the processing of all food groups containing intact protein where the intact protein is to be hydrolysed.

The enzyme acts on both animal and vegetable proteins such as casein, whey, gluten, and proteins from soy, corn, rice, peas, lentils, meat and fish.

The enzyme is used in food manufacturing as a processing aid to ease and optimise the hydrolysis process and to get a high yield and controlled fraction of soluble proteins and peptides with different functional properties, e.g. increased solubility, modified viscosity,

altered foaming, gelling and emulsifying properties or improved digestibility (Nielsen, 2010[7]).

The enzyme is denatured by high temperatures used in the manufacturing process and does not have any action or function in the final food product.

F.2. The levels of residues of the processing aid or its metabolites for each food or food group

The serine protease enzyme preparation is used at minimum levels necessary to achieve the desired effect and according to requirements for normal production following cGMP.

The serine protease exerts its activity during the protein hydrolysis step. The enzyme is denatured by heat at the termination step. No reaction products, which could not be considered normal constituents of the diet, are formed during the production or storage of the enzyme treated food.

F.2.1. Estimates of human consumption

An exposure assessment according to the Budget Method (Hansen, 1966[21]; Douglass et al., 1997[22]; ILSI, 1997[23]) has been performed, as the processed proteins are used as ingredients in a variety of beverage and food products.

Budget method

The Budget Method assumptions represent a "maximum worst case" situation of human consumption, in which the food enzyme object of the present dossier would be used at its maximum recommended dosages in all processed food and all processed beverages.

The Budget Method also assumes that all of the food enzyme will end up in the final food. This assumption is exaggerated since the enzyme protein and the other substances resulting from the fermentation are diluted. Therefore, the safety margin calculation derived from this method is highly conservative.

Assumptions in the Budget Method

Solid food	The maximum energy intake over the course of a lifetime is 50 kcal/kg body weight/day. 50 kcal corresponds to 25 g food. Therefore, adults ingest 25 g food per kg body weight per day. Assuming that 50% of the food is processed food, the daily consumption of processed food will be 12.5 g processed foods per kg body weight. It is further assumed that, in average, all processed food contains 10% protein hydrolysate dry matter = 1.25 g protein hydrolysate dry matter per kg body weight per day.

Liquids	The maximum intake of liquids (other than milk) is 100 ml/kg body weight/ day. Assuming that 25% of the non-milk beverages is processed, the daily consumption will be 25 ml processed beverages per kg body weight. It is further assumed that all processed beverages contain 3.5% protein hydrolysate = 0.875 g protein hydrolysate dry matter per kg body weight per day. It is assumed that the densities of the beverages are ~ 1.

TMDI (Total amount of dietary intake)
The maximum recommended dosage of TL1 conc BG for production of solid and liquid food is 10800 KMTU per kg protein raw material.

A dosage of 10800 KMTU per kg protein raw material corresponds to that 6840 mg enzyme TOS (total organic solids) is transferred to one kg protein raw material.

The above activity/TOS relation is based on typical composition data as given in the Product Data Sheet for TL1 conc BG (Appendix 2.1).

- Declared activity: 1500 KMTU/g enzyme product
- TOS content: 95 g TOS/100g enzyme product

TMDI solid food
Based on the given recommended dosage, 1.25 g protein hydrolysate dry matter in solid food will contain a maximum: 6840 mg TOS per kg / 1000 g per kg x 1.25 g = 8.55 mg TOS

TMDI liquids
Based on the given recommended dosage, 0.875 g protein hydrolysate dry matter in liquids will contain a maximum: 6840 mg TOS per kg / 1000 g per kg x 0.875 g = 5.99 mg TOS

TMDI solid food + liquids
The theoretical maximum daily intake (TMDI) of consumers of the food enzyme via various beverage and food products is: 8.55 + 5.99 = 14.5 mg TOS/kg body weight/day.

F.2.2. Safety Margin Calculation

The NOAEL in the 25-days oral (gavage) toxicity study in rats was concluded to be 3605 mg TOS/kg bw/day (see section C.2. and Appendix 5.7).
Based on the calculated theoretical "worst case" TMDI as described in the section above, a safety margin can be calculated as the NOAEL divided by the TMDI, as seen below.

NOAEL (mg TOS/kg bw/day)	3605
TMDI (solid food + liquids) (mg TOS/kg bw/day)	14.5
Safety margin (Budget method)	**249**

F.3. For foods or food groups not currently listed in the most recent Australian or New Zealand National Nutrition Surveys (NNSs), information on the likely level of consumption

Not relevant. In the estimate on human consumption given in F.2.1 above, it is assumed that all food and beverages containing protein hydrolysates are produced using TL1 conc BG as a processing aid at the highest recommended dosage.

F.4. The percentage of the food group in which the processing aid is likely to be found or the percentage of the market likely to use the processing aid

In the estimate on human consumption given in F.2.1 above, it is assumed that all food and beverages containing protein hydrolysates are produced using TL1 conc BG as a processing aid at the highest recommended dosage.

F.5. Information relating to the levels of residues in foods in other countries

For the estimate on human consumption given in F.2.1 above, consumption data from UK, DK and US were used.

F.6. For foods where consumption has changed in recent years, information on likely current food consumption

For the estimate on human consumption given in F.2.1 the Budget Method has been used representing a "maximum worst case" situation of human consumption.

LIST OF REFERENCES

[1] Gauthier SF, Pouliot Y (2003) Functional and Biological Properties of Peptides Obtained by Enzymatic Hydrolysis of Whey Proteins. Journal of Dairy Science, 86 E Suppl. E78-E87.

[2] van der Ven C, Gruppen H, de bont DBA, Voragen AGJ (2002) Correlations between Biochemical Characteristics and Foam-Forming and -Stabilizing Ability of Whey and casein Hydrolysates. Journal of Agricultural and Food Chemistry, 50, 2938-2946.

[3] Aunstrup K. (1979). Production, Isolation, and Economics of Extracellular Enzymes in Applied Biochemistry and Bioengineering, Volume 2, Enzyme Technology, Eds. Wingard, L.B., Katchalski-Katzir, E. and Goldstein, L, pp. 28-68.

[4] EU Scientific Committee for Food. Guidelines for the presentation of data on food enzymes. Reports of the Scientific Committee for Food, 27th series, 1992.

[5] Pariza, M.W. and Foster, E.M.. Determining the Safety of Enzymes Used in Food Processing. Journal of Food Protection, 46:5:453-468, 1983.

[6] Pariza, M.W. and Johnson, E.A.. Evaluating the Safety of Microbial Enzyme Preparations Used in Food Processing: Update for a New Century. Reg. Tox and Pharm 33: 173-186, 2001.

[7] Nielsen PM (2010). Enzymes in protein modification. Enzymes in Food Technology (RJ Whitehurst, M van Oort M, eds) Wiley-Blackwell, UK. 292-319.

[8] Trinci APJ (1992) Myco-protein: A twenty-year overnight success story. Mycol. Res. 96 (1), 1-13.

[9] JECFA (2003) Xylanase from Thermomyces lanuginosus expressed in Fusarium venenatum. WHO Food Additives Series, 52. http://www.inchem.org/documents/jecfa/jecmono/v52je11.htm (Last visited 17 Apr. 2014).

[10] JECFA (2012) Serine protease with trypsin specificity from Fusarium oxysporum expressed in Fusarium venenatum. Combined Compendium of Food Additive Specifications. Monograph 13, 530. Online edition. http://www.fao.org/ag/agn/jecfa-additives/specs/monograph13/additive-530-m13.pdf. Last visited 17 Apr. 2014).

[11] JECFA (2012) Serine protease (trypsin) from Fusarium oxysporum expressed in Fusarium venenatum. Safety evaluation of certain food additives. WHO Food Additives Series, 67, 51-61. Online edition. http://apps.who.int/iris/bitstream/10665/77763/1/9789241660679_eng.pdf (Last visited 15 July 2014)

[12] JECFA (2012) Serine protease (trypsin) from Fusarium oxysporum expressed in Fusarium venenatum. Evaluation of certain food additives. Seventy-sixth report of the Joint FAO/WHO Expert Committee on Food Additives. WHO Technical Report Series, 974, 25-28. Online edition. http://apps.who.int/iris/bitstream/10665/77752/1/WHO_TRS_974_eng.pdf (Last visited 15 July 2014)

[13] Bindslev-Jensen C, Skov PS, Roggen EL, Hvass P, Brinch DS (2006) *Investigation on possible allergenicity of 19 different commercial enzymes used in the food industry*. Food Chem. Toxicol. 44, 1909-1915

[14] Goodman RE, Vieths S, Sampson HA, Hill D, Ebisawa M, Taylor SL, van Ree R (2008) *Allergenicity assessment of genetically modified crops – what makes sense?* Nature Biotechnology 26 (1), 73-81

[15] Nirenberg HI (1995) Morphological differentiation of Fusarium sambucinum Fuckel sensu stricto, F. torulosum (Berk. & Curt.) Nirenberg comb. nov. and F. venenatum Nirenberg sp. nov. Mycopathologia. 129, 131-141.

[16] Austwick PKC (1984) Fusarium infections in man and animals. Applied mycology of Fusarium / symposium of the British Mycological Society, held at Queen Mary College, London, September 1982. (Moss MO, Smith JE, eds.) Camebridge University Press, 129-140.

[17] Joffe AZ (1986) Human Infections associated with Fusarium Species. Fusarium species : their biology and toxicology. John Wiley & Sons, New York, 293-298.

[18] Miller JD, MacKenzie S (2000) Secondary metabolites of Fusarium venenatum strains with deletions in the Tri5 gene encoding trichodiene synthetase. Mycologia 92 (4), 764-771.

[19] Thrane U, Hansen U (1995) Chemical and physiological characterization of taxa in the Fusarium sambucinum complex. Mycopathologia, 129, 183-190.

[20] Desjardins AE, Proctor RH (2007) Molecular biology of Fusarium mycotoxins. International Journal of Food Microbiology, 119, 47-50.

[21] Hansen S.C. (1966). Acceptable daily intake of food additives and ceiling on levels of use, Food Cosmet. Toxicol. 4: 427–432, 1966.

[22] Douglass J.S., Barray L.M., Tennant D.R., Long W.R. and Chaisson, C.F. (1997). Evaluation of the budget method for screening food additive intakes, Food Add. Contam., 14, 791-802.

[23] ILSI (1997) An evaluation of the budget method for screening food additive intake. Summary report prepared under the responsibility of ILSI Europe Food Chemical Intake Task Force, 1-12.

List of Appendices

1) General Requirements
2) Product information
3) Methods of analysis used to determine compliance with the specifications
4) Documentation regarding the manufacturing process
5) Safety documentation
6) Documentation regarding the production microorganism

Appendix 1

General Requirements

1. Evidence that the food industry generally or other specific companies have an interest in, or support, the proposed change to the Code
2. Formal request for treatment of confidential commercial information (CCI)
3. Statutory declaration
4. Checklist for GENERAL REQUIREMENT
5. Checklist for Standards related to Substances added to Food

Nestlé Australia Ltd.
ABN 77 000 011 316

GROUP HEAD OFFICE
1 HOMEBUSH BAY DRIVE, RHODES NSW 2138
POSTAL ADDRESS:
GPO BOX 4320, SYDNEY NSW 2001

TELEPHONE: (61 - 2) 8756 2000
FACSIMILE: (61 - 2) 9736 0500

Nestlé

[redacted]
Novozymes A/S
Krogshoejvej 36
2880 Bagsvaerd Denmark

7 July 2014

Dear [redacted]

The serine protease enzyme preparation, **TL1 conc BG**, has been tested in our pilot plant with very good results.

TL1 conc BG is useful when a moderate, controlled hydrolysis is desirable. The **trypsin** specificity of the enzyme makes it an interesting alternative/ supplement to other proteases currently used by Nestlé for various food applications.

We would therefore highly support an application seeking approval of **TL1 conc BG** in Australia/New Zealand.

Please let us know if we can be of further assistance in the approval process of **TL1 conc BG**.

Regards,

[redacted]
Manager, Regulatory & Scientific Affairs Oceania
Nestlé Australia Ltd

Appendix 1.2

Formal request for treatment of confidential commercial information (CCI)

Novozymes respectfully request that parts of Appendix 6 are treated as confidential commercial information (CCI).

The parts marked confidential in Appendix 6 contain detailed description of the construction of the genetically modified production strain and the introduced DNA. While individual steps in the DNA construction might be well known or publicly available information, the exact steps and sequence of those constitutes information that represent the state-of-the-art of one of Novozymes' core technologies, which has been obtained as a result of substantial investment in research and development within rDNA technology. Therefore, the marked information in Appendix 6 is claimed confidential for an unlimited period of time.

Furthermore, the sequence for serine protease provides an unambiguous possibility for our competitors to link a certain serine protease to a specific commercial product which would make it extremely easy for our competitors to copy it or benchmark their product against ours.

July 2014

[redacted]

Senior Regulatory Specialist
Regulatory Affairs
Novozymes A/S

Statutory Declaration – Australia

The information provided in Parts 1 to 3 must be attested to by a statutory declaration in some suitable form along the following lines:

STATUTORY DECLARATION

Re: Serine protease from Fusarium oxysporum

Statutory Declarations Act 1959 [1]

I, [redacted] and director of Novozymes Australia Pty Ltd

make the following declaration under the *Statutory Declarations Act 1959*:

1. the information provided in this application fully sets out the matters required
2. the information provided in this application is true to the best of my knowledge and belief
3. no information has been withheld that might prejudice this application, to the best of my knowledge and belief

I understand that a person who intentionally makes a false statement in a statutory declaration is guilty of an offence under section 11 of the *Statutory Declarations Act 1959*, and I believe that the statements in this declaration are true in every particular.

[*Signature of person making the declaration*] [redacted]

Declared at North Rocks on 3rd of July 2014.

Before me, [redacted]

[redacted]
NSW JP [redacted]
355 North Rocks Road
North Rocks NSW 2151

[*Signature of person before whom the declaration is made*][2]
[*Full name, qualification and address of person before whom the declaration is made (in printed letters)*]

I, [redacted] .. JP No. . [redacted]
a JP for NSW, certify:

1. I saw the face of the declarant/deponent and
2. ~~*I have known the person for at least 12 mths OR~~
   *I confirmed the person's identity with

NSW DRIVERS LICENCE [redacted]

[redacted] 3/7/2014
Date

[1] http://www.comlaw.gov.au/Series/C1959A00052.

[2] A statutory declaration must be made before a prescribed person under the *Statutory Declarations Act 1959*. The list of prescribed persons is available in the Statutory Declarations Regulations 1993 at http://www.comlaw.gov.au/Series/F1996B00198.

Appendix 1.4

Checklist for GENERAL REQUIREMENTS

General requirements (3.1)	
☒ 3.1.1 Form of application ☒ *Application, abstracts and other key documents in English* ☒ *Executive Summary (separated from main application electronically and in hard copy)* ☒ *Relevant sections of Part 3 clearly identified* ☒ *Pages sequentially numbered* ☒ *Electronic copy (searchable)* ☒ *1 hard copy* ☒ *Electronic and hard copy identical* ☒ *Hard copy capable of being laid flat* ☒ *All references provided (in electronic and hard copy)*	☒ 3.1.6 Assessment procedure ☒ *General* ☐ *Major* ☐ *Minor* ☐ *High level health claim variation* ☒ 3.1.7 Confidential Commercial Information ☒ *Confidential material separated in both electronic and hard copy* ☒ *Formal request including reasons* ☒ *Non-confidential summary provided*
☒ 3.1.2 Applicant details	☐ 3.1.8 Exclusive Capturable Commercial Benefit ☐ *Justification provided*
☒ 3.1.3 Purpose of the application	☒ 3.1.9 International and other national standards ☒ *International standards* ☒ *Other national standards*
☒ 3.1.4 Justification for the application ☒ *Regulatory impact information* ☒ *Impact on international trade*	☒ 3.1.10 Statutory Declaration
☒ 3.1.5 Information to support the application ☒ *Data requirements*	☒ 3.1.11 Checklist/s provided with application ☒ *3.1 Checklist* ☒ *Any other relevant checklists for Parts 3.2-3.7*

Appendix 1.5

Checklist for Standards related to Substances added to Food

Processing Aids (3.3.2)			
☒	A.1 Type of processing aid	☒	C.3. Allergenicity information of enzyme (enzyme only)
☒	A.2 Identification information	☒	C.4. Overseas safety Assessment Reports
☒	A.3 Chemical and physical properties	☒	D.1 Information on source organism (enzyme from microorganism only)
☒	A.4 Manufacturing process	☒	D.2 Pathogenicity and toxicity of source microorganism (enzyme from microorganism only)
☒	A.5 Specification information	☒	D.3 Genetic stability of source organism (enzyme from microorganism only)
☐	A.6 Analytical method for detection	☒	E.1 Nature of genetic modification of source organism (enzyme from GM source microorganism)
☐	B.1 Industrial use information (chemical only)	☒	F.1 List of foods likely to contain the processing aid
☐	B.2 Information on use in other countries (chemical only)	☒	F.2 Anticipated residue levels in foods
☐	B.3 Toxicokinetics and metabolism information (chemical only)	☐	F.3 Information on likely level of consumption
☐	B.4 Toxicity information (chemical only)	☒	F.4 Percentage of food group to use processing aid
☐	B.5 Safety assessments from international agencies (chemical only)	☒	F.5 Information on residues in foods in other countries (if available)
☒	C.1 Information on enzyme use on other countries (enzyme only)	☒	F.6 Where consumption has changed, information on likely consumption
☒	C.2 Toxicity information of enzyme (enzyme only)		

Appendix 2

Product information

1. Product Data Sheet for TL1 conc BG

2. Certificate of approval for serine protease from *F. oxysporum* expressed in *F. venenatum* by the Danish authorities. Novozym 12001 (commercial product name referred to in approval certificate) is a liquid variant of TL1 conc BG.

3. Statement from the Danish authorities regarding safety evaluation of new enzymes

novozymes
Rethink Tomorrow

Valid from 2012-02-14

TL1
Conc. BG

In this product the key enzyme activity is provided by

endoprotease that hydrolyzes peptide bonds

PRODUCT CHARACTERISTICS/PROPERTIES

Declared enzyme	Serine protease (trypsin)
Declared activity	1500 KMTU/g
Color	Yellow to light brown
Physical form	Granulate
Particle size	Approx. 50-212 microns

Color can vary from batch to batch. Color intensity is not an indication of enzyme activity.

PRODUCT SPECIFICATION

	Lower Limit	Upper Limit	Unit
Microbial trypsin unit	1500		/g
Total viable count	-	10000	/g
Coliform bacteria	-	30	/g
E.coli	Not Detected		/25 g
Salmonella	Not Detected		/25 g
Heavy metals		Max 30	mg/kg
Lead		Max 5	mg/kg
Arsenic		Max 3	mg/kg
Cadmium		Max 0.5	mg/kg
Mercury		Max 0.5	mg/kg

The enzyme analytical method is available from the Customer Center or sales representative.

COMPOSITION

Ingredients	Appr. % (w/w)
Serine Protease (Trypsin) CAS no. 9002-07-7*	95
Water CAS no. 7732-18-5	5

*Defined as enzyme conc. (dry matter basis)

The composition is designed to give optimum product properties and enzyme stability.

ALLERGEN

Allergen	Substance contained[1]	Allergen	Substance contained[1]
Beef	no	Lactose	no
Carrot	no	Legumes	no
Celery	no	Lupin	no
Cereals containing gluten[2]	no	Milk	no
Chicken meat	no	Molluscs	no
Cocoa	no	Mustard	no
Coriander	no	Nuts[3]	no
Corn/maize	no	Peanuts	no
Crustaceans	no	Pork	no
Egg	no	Sesame	no
Fish	no	Soy	no
Glutamate	no	Sulphur dioxide/sulphites more than 10 mg per kg or l	no

[2]i.e.wheat rye barley oats spelt kamut

[3]i.e. almond hazelnut walnut cashew pecan nut Brazil nut pistacchio nut macadamia nut and Queensland nut

NUTRITIONAL VALUES

The product has a typical nutritional value of approximately 1615 kJ/100 g enzyme product.

- Protein 95 g/100 g
- Moisture 5 g/100 g

PRODUCTION ORGANISM

Production organism

Produced by submerged fermentation of a micro organism. The enzyme protein is separated and purified from the production organism.

TL1
Conc. BG

STORAGE CONDITION

Recommended storage: 0-25 °C (32-77 °F)

Packaging must be kept intact dry and away from sunlight. Please follow the recommendations and use the product before the best before date to avoid the need for a higher dosage.

Best before: You will find the best before date in the certificate of analysis or on the product label.

The product gives optimal performance when stored as recommended and used within 24 months of the production date.

Novozymes guarantees delivery at least 12 months prior to the best-before date.

SAFETY AND HANDLING PRECAUTIONS

Enzymes are proteins. Inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin eyes and mucous membranes upon prolonged contact. See the MSDS or Safety Manual for further information regarding safe handling of the product and spills.

COMPLIANCE

The product complies with the recommended purity specifications for food-grade enzymes given by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and the Food Chemical Codex (FCC).

Kosher and Halal certificates are available from the Customer Center or sales representative.

CERTIFICATIONS

Novozymes is a signatory to United Nations Global Compact United Nations Convention on Biological Diversity and report on our sustainability performance through Global Reporting Initiative (GRI). See all our commitments under sustainability on www.novozymes.com.

FOOD SAFETY

Novozymes has carried out a hazard analysis and prepared an HACCP plan describing the critical control points (CCPs). The HACCP plan is supported by a comprehensive prerequisite program implemented in Novozymes' GMP practices.
The product is produced according to Novozymes' HACCP plan GMP practices and additional requirements controlled by Novozymes' Quality Management System.

The product complies with FAO/WHO JECFA- and FCC-recommended purity requirements regarding mycotoxins. The product complies with EU legislation regarding pesticides.

The product is produced under FSSC 22000 certification.

PACKAGING

The product is available in different types of packaging. Please contact the sales representative for more information.

Novozymes A/S
Krogshoejvej 36
2880 Bagsvaerd
Denmark

Tel. +45 4446 0000
Fax +45 4446 9999

For more information or for more office addresses visit www.novozymes.com

Ministeriet for Fødevarer, Landbrug og Fiskeri
Fødevarestyrelsen

TO WHOM THIS MAY CONCERN

DIVISION OF
FOOD QUALITY, TECHNOLOGY
AND MARKETING PRACTICES

08.12.2008
[redacted]

Novozym 12001

The Danish Veternary and Food Administration hereby certifies having accepted in 2008 the enzyme product Novozym 12001 from Novozymes A/S. The product, which is derived from a genetically modified strain of *Fusarium venenatum* expressing the serine protease gene from *Fusarium oxysporum*, has been accepted to be used in the production of protein hydrolysates at a level of 720 KMTU per kg dry protein.

The evaluation of the safety of Novozym 12001 bas been made in accordance with the principles laid down in the Guidelines for the presentation of data on food enzymes, "cf. Reports of the Scientific Commettee of Food, 27th, Series; EUR 14181, 1992.

Yours faithfully

[redacted]

Danish Veterinary and Food Administration
Mørkhøj Bygade 19
DK-2860 Søborg
Tel +45 33 95 60 00
Fax +45 33 95 60 01
fvst@fvst.dk
www.fvst.dk

Ministry of Food, Agriculture and Fisheries
Danish Veterinary and Food Administration

To whom it may concern

DIVISION OF
FOOD QUALITY, TECHNOLOGY
AND MARKETING PRACTICES

31.03.2008

The evaluation process for safety of new enzymes

The Danish Veterinary and Food Administration hereby certifies that the evaluation process of the safety of new enzymes is made in accordance with the principles laid down in the "Guidelines for the presentation of data on food enzymes" cf. Reports of the Scientific Committee of Food, 27th Series, EUR 14181, 1992.

In accordance with this information about the following is required and evaluated before acceptance of use of each new enzyme in food production in Denmark:

CONTEXT
ADMINISTRATIVE DATA
TECHNICAL DATA

1	Active components	
	1.1	Primary enzyme activity
	1.2	The activity of the enzyme preparation
	1.3	Subsidiary enzymatic activities
2	Source materials	
	2.1	Animal sources
	2.2	Plant sources
	2.3	Microbial sources
	2.4	Genetically modified organisms
3	Manufacturing Process	
	3.1	Fermentation
	3.2	Purification
4	Carrier and other additives and ingredients	
	4.1	Formulation - Ingredients and additives
	4.2	Immobilized enzyme preparation
	4.3	TOS and composition
5	Usage	
	5.1	Technological function
	5.2	Types of foodstuffs
	5.3	Maximum dosage of the enzyme preparation
6	Stability and fate in the food	
	6.1	Amount of enzyme in the final food preparation
	6.2	Main reaction products

Mørkhøj Bygade 19
DK-2860 Søborg

T +45 33 95 60 00
F +45 33 95 60 01

www.fvst.dk
fvst@fvst.dk

	6.3	Possible effects on nutrients

GENERAL REQUIREMENTS AND SPECIFICATIONS

7	Hygiene	
	7.1	Good Manufacturing Practice (GMP)
	7.2	Influence on total microbial count in final foodstuff
8	Purity specifications/absence of contaminants	
	8.1	Heavy metals
	8.2	Microbiological contaminants
	8.3	Production organism
	8.4	Antibiotic activity
	8.5	Toxins

DOCUMENTATION FOR SAFETY IN USE

9	Basic toxicological requirements	
	9.1	Enzymes derived from edible animals or plants
	9.2	Enzymes derived from micro-organisms
10	Exemptions from the basic toxicological requirements if relevant	

EVALUATION OF SAFETY IN USE

Estimate of human consumption

Safety margin

LIST OF REFERENCES

The level of details required for the individual points are as given in the above mentioned guideline. For additional information regarding individual enzyme notifications, please contact the Danish Veterinary and Food Agency, Division of Food Quality, Technology and Marketing Practice.

Yours faithfully

[redacted]

Biochemist, PhD

[redacted]

Appendix 3

Methods of analysis used to determine compliance with the specifications

1.	Enzyme activity method, KMTU/g	2013-02083
2.	Total aerobic viable count	EB-SM-3001.02
3.	Total coliforms	EB-SM-3091.02
4.	Escherichia coli (E. coli).	EB-SM-5036.02
5.	Salmonella	EB-SM-3009.02
6.	Antimicrobial activity	2014-05507
7.	Production strain	EB-SM-3000.02
8.	Heavy metals	UT015a
9.	Mycotoxin analysis	Analytical report “Screening of enzyme product for mycotoxins” by Technical University of Denmark (2013)

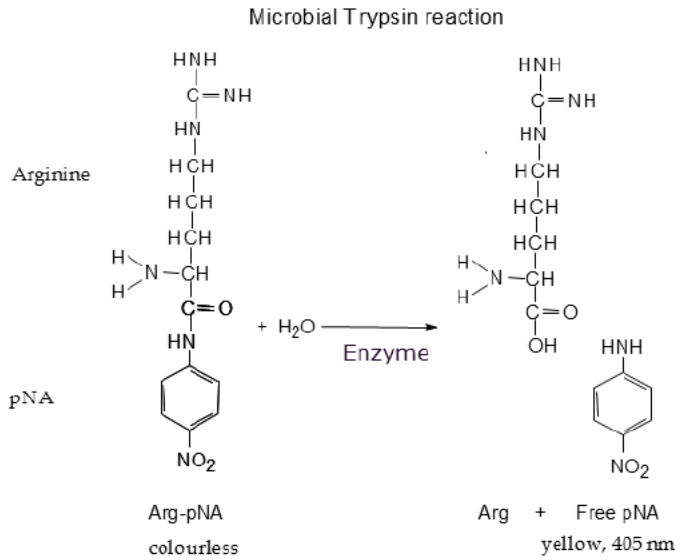
novozymes
Rethink Tomorrow

Analytical methods

Microbial Trypsin activity on Konelab (KMTU)

Principle

Microbial trypsin hydrolyses the chromophoric substrate Ac-Arg-p-nitro-anilide (Ac-Arg-pNA). The liberated pNA produces an absorption increase at 405 nm, which is proportional to enzyme activity.



Parameter	Reaction conditions
Temperature	37°C
pH	8.0
Substrate conc.	4.4 mM Ac-Arg-pNA
Enzyme conc.	0.19 – 0.96 mKMTU/ml
Reaction time	320 s
Interval kinetic measuring time	Every 18 seconds 12 times, the first measurement after 120 seconds
Wavelength	405 nm

Definition of unit

1 KMTU is defined relative to an enzyme standard.

Equipment

Equipment	
Konelab 30 analyzer	Thermo Fisher Scientific
Diluter	E.g., Hamilton Microlab or pipettes
Analytical balance	E.g., Sartorius
pH meter	E.g., Radiometer, Metrohm
Magnetic stirrer plates	-

Chemicals

Name	Chemical formula	Brand
Ac-Arg-pNA	C14H20N6O4 • HCl	Bachem, L-1025
Calciumchlorid-dihydrate	CaCl2 • 2H2O	E.g. Merck, 1.02382
Tris base	NH2C(CH2OH)3	E.g. Sigma, T1378
Brij 35, 30% (w/v)	C12E23 (Polyoxyethylene 23 lauryl ether)	E.g. Sigma, B4184
Hydrochloric acid, 2M	HCl	

Check out the Material Safety Data Sheets (MSDSs) for the chemicals.

Reagents

Brij 30 solution, 15% w/v:

EXAMPLE: Preparation of 2 L:

Step	Action
1	Pour 1000 ml Brij 35 solution, 30% w/v (e.g. Sigma B4184) into a 2 L volumetric flask. This can be done more easily after warming up Brij 35 solution, 30% w/v to 34-35°C
2	Before filling the volumetric flask: Rinse the Brij-bottle thoroughly with demineralized water and use the water to fill into the volumetric flask
3	Fill up to the mark with demineralized water (from the Brij-bottle)
4	Stir solution vigorously and pour into a bottle
5	Stability: 2 months at 4°C

TRIS Buffer, 1 M:

EXAMPLE: Preparation of 1 L:

Step	Action
1	Weigh out and transfer 121.1 g Tris (hydroxymethyl)-aminomethane (TRIS base) into a 1000 ml volumetric flask
2	Add approx. 800 ml of Milli-Q rinsed water and stir on a magnetic stirrer until dissolved
3	Fill up to the mark with Milli-Q rinsed water
4	Stability: 1 month at room temperature

Diluent (1.5 mM CaCl2, 0.225 g/L Brij, 100 mM Tris, pH 8.0):

EXAMPLE: Preparation of 10 L:

Step	Action
1	Weigh out and transfer 2.20 g CaCl2•2H2O into a 10000 ml volumetric flask
2	Add 1000 ml of TRIS 1 M (prepared as described above)
3	Add 15 ml of Brij 35 solution, 15% w/v (prepared as described above)
4	Add approx. 7000 ml of demineralized water
5	Add 275 ml hydrochloric acid (2 M HCl)
6	Mix on a magnetic stirrer until completely dissolved
7	IMPORTANT: The pH electrode is rinsed with Tris dilution buffer with Brij, pH 9.0 before measuring

8	Adjust pH to 8.00 ± 0.05 with hydrochloric acid (2M HCl)
9	Fill up to the mark with demineralized water. Mix until the solution is thoroughly mixed

Ac-Arg-p-NA substrate solution 5 mM:

EXAMPLE: Preparation of 100 mL:

Step	Action
1	Weigh out and transfer quantitatively 186±0.2 mg Ac-Arg-pNA into a 100 ml volumetric flask. NOTE: Use diluent (prepared as described above) to rinse weighing vessel and transfer all the substrate powder. IMPORTANT: Use gloves to avoid protease contamination
4	Add diluent (prepared as described above) up to the mark
5	Wrap the volumetric flask immediately with aluminum foil to protect from light, since the substrate is light-sensitive
6	Mix on a magnetic stirrer for min. 5 minutes and max. 10 minutes
7	Aliquot the solution in tubes/bottles of 10 ml protected from light and store frozen until use
8	Stability: 28 days at -18°C (if no yellow coloring appears)

Standards

The standard is available on request.

Preparation:

Step	Action
1	Stock solution: Weigh out an amount of enzyme standard corresponding to 20 KMCU units
2	Dissolve the standard in Diluent (1.5 mM $CaCl_2$, 0.225 g/L Brij, 100 mM Tris, pH 8.0) in a 250-ml measuring flask
3	Stir for at least 15 minutes. Storability: 6 hours at room temperature
4	Working solutions: The standard curve is a five-point curve with a factor of 5 between lowest and highest standard points. The recommended volume to make the standard curve series is 1500 µl.

Standard no.	Dilution ratio	Example		Concentration (mKMCU/ml)
		Stock solution (µl)	Diluent (µl)	
1	50	30	1470	0.060
2	25	60	1440	0.120
3	15	100	1400	0.200
4	12	125	1375	0.250
5	10	150	1350	0.300

Storability: 6 hours at room temperature, but only if covered. If uncovered the specific storability is less than 2 hours

QC Sample

The QC sample is available on request.

Prepare a QC sample with known enzyme content in the same way as for the samples below

Sample

Minimum dissolution factor: 10 ml/g.

Sample amount: 0.5–1.78 g.

Preparation:

Step	Action
1	Weigh out the sample in a weighing boat and transfer it quantitatively to a volumetric flask using diluent. The activity in the final dilution should be approx. 0.0047 KMTU/ml
2	Fill the volumetric flask to the mark with citrate buffer and stir for minimum 15 minutes
3	Storability: 8 hours at room temperature

Blank

No reagent blank.

Procedure

Step	Action
1	Prepare reagents, dilutions of standard, QC sample, and samples
2	Start up the Konelab 30
3	Place the reagents in the Konelab:

Reagent	Konelab reagent name	Reagent container volume*	Syringe speed
Ac-Arg-p-NA substrate solution 5 mM	KMTU-SUB	20 ml	Slow

NOTE: * If a smaller reagent container is used, no alarm will be given for shortage of reagent

Step	Action
4	Place the standards, QC sample, and samples in the Konelab in the stated order. 18 samples can be analyzed in a single analytical run
5	Start the Konelab

Calculations

Step	Action
1	The activity of the enzyme samples is determined relative to the standard curve
2	On the basis of the results of Abs/min for the five standards, a standard curve is drawn with the activities of the standards in KMTU/ml as the x-values and the Abs/min of the standards as the y-values. The standard curve is a Linear fit
3	The enzyme activity of the diluted samples is read from the standard curve. The activity of a sample in KMTU/g is calculated using the formula: $\text{Activity KMTU/g} = \frac{S \times V \times F}{W}$ S = Reading from the standard curve in KMTU/ml V = Volume of the measuring flask in ml F = Dilution factor for second dilution W = Weight of sample in g
4	1.0000 g of sample is dissolved in a 100-ml measuring flask and further diluted 10 times using a diluter. From the standard curve, an activity of 0.005 KMTU/ml is calculated from the signal in Abs/min. $\text{Activity} = \frac{0.005\ \text{KMTU/ml} \times 100\text{ml} \times 1000}{1.0000\text{g}} = 500\ \text{KMTU/g}$

Approval of analytical run

Standard curve:

Parameter	Requirement
Quality of fit (lower r^2 limit)	$R^2 \geq 0.9945$
Curve appearance	The standard curve is a Linear standard curve

QC sample:

The measured activity of the QC sample must be the declared value +/- 3 standard deviations.

Samples:

The analytical result is the average of two weighings on two different standard curves.

Statement of analysis results

The results are stated with three significant digits

Configurations

Curve type
Nonlinearity 1:
Conc. (Abs/min)
Time (sec)

Handling of enzymes and chemicals

Enzymes and enzyme solutions should be handled in a fume hood or in closed containers.

Avoid inappropriate handling of enzymes and enzyme solutions, which may result in aerosol/dust generation.

Avoid inhalation of dust aerosols and contact with skin and eyes.

Handling of chemicals and disposal of waste must be performed according to valid procedures.

Validity

Valid from February 2013.

Novozymes A/S
Krogshøjvej 36
2880 Bagsværd
Danmark

www.novozymes.com
info@novozymes.com

Novozymes is the world leader in bioinnovation. Together with customers across a broad array of industries we create tomorrow's industrial biosolutions, improving our customers' business, and the use of our planet's resources. Read more at www.novozymes.com.

Novozymes A/S · Luna No. 2013-02083-02

Enumeration of Total Viable Count

Scope

All Novozymes Enzyme Business QC laboratories involved in analysis of samples from Novozymes production and GLP studies.

Principle

Total Viable Count (TVC) is defined as the number of organisms which form colonies on a non-selective agar medium (Tryptic Soy Agar, TSA) after aerobic incubation for 3 days at 30-35°C. TSA is a rich non-selective agar medium.

The method outlined below conforms to the principles of (Ref. 1) with the following exceptions:

- The test only covers the enumeration of microorganisms capable of growing on TSA (Total aerobic Microbial Count).
- The dilution water has an addition of 4% Tween 80.
- EP describes the use of duplicates. This method uses single tests.
- The agar plates are incubated for 3 days, not for 3-5 days.
- Growth promotion test of TSA is performed according to in-house procedures and not according to the description in EP.

Routine samples are analysed by the spiral plater (100 µl) or spread plate technique (100 µl or 1 ml) as described below:

Sample type	Requested test (LIMS code)	Technique	Volume spread	Lowest Dilution	No. of plates	Plate size	Detection limit
Enzyme samples and fluid hyaluronic acid	TVC *or* TVC(ML)	Spiral plating or spread plating	100 µl	10^{-1}	1 plate	9 cm	100 CFU / g or ml
	TVC(100)	Spread plating	1 ml	10^{-1}	4 plates	14 cm	10 CFU / g or ml
CIP-samples	CIP_TVC	Spiral plating or spread plating	100 µl	Undiluted	1 plate	9 cm	10 CFU / ml
		Petrifilm	1 ml		N/A	N/A	1 CFU / ml
FeF samples	FEF_TVC	Spread plating	1 ml	10^{-1}	4 plates	14 cm	10 CFU / g or ml

Depending on sample type, level of contamination and the detection limit needed for the specific sample, alternative procedures may be used.

IMPORTANT: Petrifilm must only be used to analyze CIP samples if pH of the CIP water is within range 6.6-8.5 (Ref. 4 and 5).

Continued on next page

Enumeration of Total Viable Count, *Continued*

Definition of units

The result is stated as:

- Total Viable Count (TVC) / g or ml

Samples

All sample types.

Detection limit

The detection limit of this method is dependent on the sample volume and the dilution in use (See “Principle”).

Equipment

- Balance (± 0.1 g)
- Magnetic stirrer
- Petri dishes (9 cm or 14 cm)
- Suitable sterile pipettes for transfer of 100 µl or 1 ml (4x0.25 ml)
- Spiral plater (for the spiral plate technique)
- Sterile Drigalski spreaders (for the spread plate technique)
- Incubator (30-35°C)
- Stereo microscope or microscope
- Plastic spreader (*Petrifilm test*)

Media and reagents

- Tween 80 buffer 4%, 90 ml (if necessary with a magnet) prepared acc. to EB-ME-0052
- EP buffer, 90 ml buffered sodium chloride-peptone solution pH 7.0, prepared acc. to EB-ME-0067
- TSA plates (9 or 14 cm) prepared acc. to EB-ME-0041
- 3M™ Petrifilm™ Aerobic Count Plates (*Petrifilm test*)

Safety

It is the responsibility of the laboratory leader, that all personnel are aware of the correct handling of enzymes and reagents.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Sample preparation

Enzyme samples and other solid samples are prepared as follows:

Sample type	Action
Enzyme samples **FeF samples** **Other solid samples**	Transfer 10 g of solid sample or 10 ml of liquid sample to 90 ml Tween 80 buffer 4%. *NOTE:* Immediately homogenize the sample by stirring or by shaking. Solid samples are homogenized on a magnetic stirrer for app. 20 minutes though min. 1 hour for Sweetzyme (batch code IA).
Non-enzyme fluid samples (e.g. CIP samples)	Non-enzyme fluid samples are analyzed undiluted. If needed, 10-fold dilutions may be prepared with Tween 80 buffer 4%.
Fluid hyaluronic acid (HA)	Transfer 10 ml of liquid sample to 90 ml EP buffer. *IMPORTANT:* Homogenize on a magnetic stirrer for min. 1 hour. It is recommended to shake the sample after approx. 30 min.

TIP: All enzyme products must be analyzed from at least a 10^{-1} dilution due to possible inhibition of microorganisms in undiluted enzyme. If an enzyme product is known to contain growth inhibiting components (e.g. rodalone or proxel) consider analyzing further dilutions prepared with Tween 80 buffer 4% (e.g. 10^{-2} and 10^{-3} dilutions). In this case be aware that the quantification limit is lower than the spec. limit of the sample.

IMPORTANT: Valid for US laboratories: TVC analysis must also be performed using a 10^{-2} dilution if the spec. limit of the sample is > 30.000 and/or for samples from Recovery 1 and 2.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Plating

Plating must be done within 15 minutes from end of homogenisation. If this is not possible, the sample can be stored at 2-8°C for up to 4 hours.

Test	Action
TVC	Transfer 100 µl from the 10^{-1} dilution onto the surface of a TSA plate (9 cm). Repeat this for any of the necessary dilutions. *Or* Perform a spiral plating of 100 µl from the 10^{-1} dilution in accordance with the directions for the specific spiral plater.
TVC(100) *or* **TVC_FeF**	Transfer 1 ml from the 10^{-1} dilution onto the surface of 4 TSA plates (14 cm) with app. 0.25 ml onto each plate. Repeat this for any of the necessary dilutions.
TVC_CIP using TSA plates	Transfer 100 µl from the undiluted sample onto the surface of a TSA plate (9 cm). Repeat this for any of the necessary dilutions. *Or* Perform a spiral plating of 100 µl from the undiluted sample in accordance with the directions for the specific spiral plater.

Leave the plates on the table with lid on until the sample has been soaked into the agar.

Test	Action
TVC_CIP using Petrifilm	*1.* Transfer 1 ml from the undiluted sample to the center of the film. *2.* Place plastic spreader, recessed side down, on center of sample and press down, gently and firmly to distribute inoculum. *3.* Wait at least one minute for gel to form

Incubation

Incubate the TSA agar plates at 30-35°C for 3 days.

Incubate the Petrifilm with clear side up at 35-39°C for 2 days.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Reading

TSA agar plates – Spread plate technique:

Count the number of colonies on the plates.

Size of agar plate	Count colonies on plates with
9 cm	1–300 colonies per plate
14 cm	1–750 colonies per plate

TSA agar plates – Spiral plate technique:

The number of typical colonies on each plate is counted and the result is calculated in accordance with the directions for the specific spiral plater. Danish sites may refer to (Ref. 2).

IMPORTANT: Small colonies, e.g. lactobacillus, may erroneously be misread as product crystallizations. If in doubt use stereo microscope for macroscopic observation and/or prepare a slide culture of a colony for light microscopy.

Petrifilm

Count the number of colonies on the film. Interval of reading is 1-250 colonies (Ref. 5).

IMPORTANT: Discoloration from enzyme residues may occur. In case this is observed the result must be considered invalid.

TIP: Refer to (Ref. 5) to get familiarized with reading Petrifilms.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Calculation

General principles:

The calculation is based on the number of colonies (C_x) on the plate, and the sample volume analysed (V_x).

The result is stated with two significant figures (e.g. 2.2×10^1).

When Using results from	Then the result is	Where
One dilution	$\frac{C_x}{V_x}$	C_x = no. of colonies V_x = volume analysed
2 or more dilutions	$\frac{C_1 + C_2}{V_1 + V_2}$	C_1 = no. of colonies in lowest dilution C_2 = no. of colonies in next dilution V_1 = volume analyzed in lowest dilution V_2 = volume analyzed in next dilution

IMPORTANT: When using more than one dilution, the numbers from each dilution are compared (the likelihood of product inhibitions, contamination of the sample, analytical errors etc. is considered). In general, the highest dilution is used. If the result is stated on the basis of other dilutions, the reason must be given in the raw data.

When the sample volume is 0.1 ml then V_x and C_x are:

Dilution	Undiluted	10^{-1}	10^{-2}
V_x	0.1 ml	0.01 ml	0.001 ml
C_x	No. of colonies on the plate	No. of colonies on the plate	No. of colonies on the plate

EXAMPLE: Examples of calculating spread plate of 0.1 ml sample:

C_x	V_x (g or ml)	Dilution	Result
0	0.01	10^{-1}	$\frac{<1}{0.01}$ = < 100 / g or ml
123	0.1	10^0	$\frac{123}{0.1}$ = 1.2×10^3 / g or ml
334	0.01	10^{-1}	$\frac{>300}{0.01}$ = > 3.0×10^4 / g or ml
253 24	0.01 0.001	10^{-1} 10^{-2}	$\frac{253+24}{0.01+0.001}$ = 2.5×10^4 / g or ml

Continued on next page

Enumeration of Total Viable Count, *Continued*

Calculation *(continued)*

When the sample volume is 1 ml (four 14 cm agar plates with 0.25 ml on each plate) then V_x and C_x are:

Dilution	Undiluted	10^{-1}	10^{-2}
V_x	1 ml	0.1 ml	0.01 ml
C_x	sum of colonies on the 4 plates	sum of colonies on the 4 plates	sum of colonies on the 4 plates

EXAMPLE: Examples of calculating spread plate of 1 ml sample:

C_x	V_x (g or ml)	Dilution	Result
0	0.1	10^{-1}	$\frac{<1}{0.1}$ = < 10 / g or ml
123	1	10^{0}	$\frac{123}{1}$ = 1.2 x 10^2 / g or ml
426	0.1	10^{-1}	$\frac{426}{0.1}$ = 4.3 x 10^3 / g or ml
3134	0.1	10^{-1}	$\frac{>3000}{0.1}$ = > 3.0 x 10^4 / g or ml
853 84	0.1 0.01	10^{-1} 10^{-2}	$\frac{853+84}{0.1+0.01}$ = 8.5 x 10^3 / g or ml

NOTE: Calculation at Danish laboratories may follow:

- Spread plating of 1 ml: PSL-MSP-0069
- Spread plating of 100 µl: PSL-MSP-0082
- Spiral plating of 100 µl: PSL-MSP-0075

Accuracy and precision

CV% (surface plating) = 25%
CV% (spiral plating) = 29%
REFERENCE: LUNA no. 2003-34435

Filing

All documentation should be filed in accordance with the local filing SOP.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Contingencies

All deviations from this SOP should be discussed with the Method Responsible Scientist and should be documented.

References

1. European Pharmacopoeia, Chapter 2.6.12. Microbiological examination of non-sterile products (Total viable aerobic count).
2. PSL-MSP-0075: Beregning ved anvendelse af spiralplater (In Danish).
3. PSL-TE-3001: Spiralplater (In Danish).
4. LUNA No. 2010-19643-01: Validation of pH Range Adjustment for Water Samples Using Petrifilm.
5. 3M Petrfilm Interpretation Guide
6. 3M Petrifilm™ Aerobic Count Plates

Revision

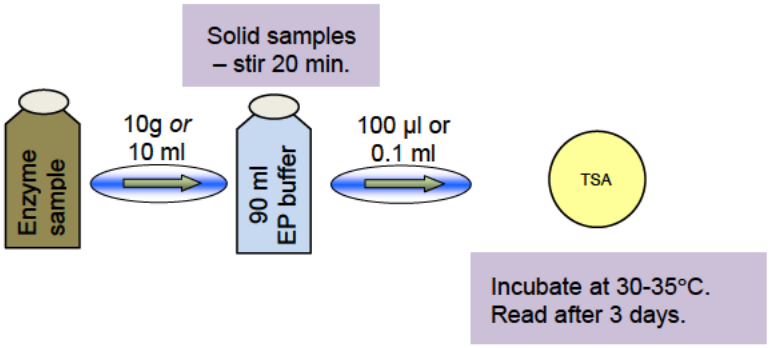
Added the LIMS Method TVC(ML) in the section “Principle”. Flow chart added. Other minor editorial changes.

Continued on next page

Enumeration of Total Viable Count, *Continued*

Appendix – Flow Chart

Flow chart of method for enzymes samples (LIMS method "TVC" or "TVC(ML)"). Click to read section.



Enumeration of coliform bacteria using Violet Red Bile agar

IMPORTANT This method is used for the analysis of **Sweetzyme** (batch code IA) and **liquid products** (with the exception of Biofeed Plus, batch code CN).

Scope All Novozymes QC laboratories involved in analysis of samples from Novozymes production and GLP studies.

Principle **Coliform bacteria** are broadly defined as Gram-negative, oxidase-negative, non-sporogenous rods, which grow in aerobic or facultative anaerobic conditions. More specifically, coliforms are capable of fermenting lactose (due to production of galactosidase) in the presence of bile at 37°C. Coliforms are not a taxonomically defined group of bacteria and consequently there is not a common agreement of which microorganisms truly belong to the coliform bacteria. However, as defined in (Ref. 3), Novozymes define coliform bacteria as organisms belonging to the genera *Escherchia*, *Citrobacter*, *Enterobacter, Klebsiella, Serratia* and *Hafnia*. The presence of coliform bacteria, especially *E. coli*, can be used as an indicator of the bacteriological hygiene of an enzyme product.

The Violet Red Bile agar (VRB) is a selective and indicative agar:

Principle	Description
Selective principle	Crystal violet and bile salts inhibit growth primarily of the Gram-positive accompanying flora. This favors growth of the fast growing Gram-negative enterobacteria.
Indicative principle	Degradation of lactose to acid is indicated by the pH indicator neutral red, which changes its color to red and in some cases also by precipitation of bile acids. Coliform bacteria degrade lactose.

Routine testing is performed in the following way:

Sample type	Requested test (LIMS code)	Technique	Volume spread	Lowest dilution	No. of plates	Plate size	Detection limit
Enzyme samples	COLIFORM	Pour plate with cover layer	2½ ml	10^{-1}	1 plate	14 cm	4 CFU / g or ml
CIP and water samples	CIP_ COLIFORM	Pour plate with cover layer	1 ml	Undiluted	1 plate	9 cm	1 CFU / g or ml

Depending on sample type, level of contamination and the detection limit needed for the specific sample, alternative procedures may be used.

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Principle *(continued)*

The method outlined below conforms to ISO 4832 with the following deviations:

- ISO 4832 and ISO 6887-1 describe the use of a Peptone-salt-solution or Buffered-peptone-water as diluent. This Novozymes method uses Tween80 buffer 4%.
- ISO 4832 describes the use of duplicates. This Novozymes method uses single tests.

Definition of units

The result is stated as:

- Coliform bacteria / g or ml

Samples

This method is used for the analysis of **Sweetzyme** (batch code IA) and **liquid products** (with the exception of Biofeed Plus, batch code CN). Biofeed Plus is analyzed according to EB-SM-3005.

NOTE: In addition, the method can be used for analysis of certain solid samples (e.g. cryst. conc. T).

Detection limit

The detection limit of this method is dependent on the sample volume and the dilution in use (See the section “Principle”).

Equipment

Balance (± 0.1 g)
Magnetic stirrer
Petri dishes (9 cm or 14 cm)
Suitable sterile pipette for transfer of 1 ml or 10 ml (4 x 2.5 ml)
Incubator (34-38°C)

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Media and reagents

- Tween80 buffer 4%, 90 ml (If necessary, with a magnet) prepared acc. to EB-ME-0052.
- Violet Red Bile agar (VRB) prepared acc. to EB-ME-0051 or NZNAQC-2.05.10a (US Labs).

NOTE: If the VRB agar is freshly prepared in the laboratory, suspend the media with 200 ml ion exchanged water and leave to bulk for 15 min. Suspension of VRB agar should be executed in a clean bench to avoid inhalation of the powder. Ensure that media is thoroughly dissolved before melting procedure by regular shaking of the media. In addition, stir the agar immediately before cooling in water bath and again before pouring in Petri dishes.

Safety

NOTE: It is the responsibility of the laboratory leader, that all personnel are aware of the correct handling of enzymes and reagents.

Sample preparation

Enzyme samples are prepared as follows:

Step	Action
1	Transfer 10 g of solid sample or 10 ml of liquid sample to 90 ml Tween80 buffer 4%.
2	Immediately homogenize the sample by stirring or by shaking. Solid samples are homogenized on a magnetic stirrer for app. 20 min.

IMPORTANT: All enzyme products must be analyzed from a 10^{-1} dilution due to possible inhibition of microorganisms in undiluted enzyme.

Non-enzyme liquid samples (e.g. CIP-samples) are analyzed undiluted.

TIP: Further 10-fold dilutions of any sample type can be prepared with Tween80 buffer 4%.

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Plating

Plating is performed using the pour plate technique:

Sample type	Description
Enzymes	1. Transfer 2½ ml from the 10^{-1} dilution to an empty Petri dish (14 cm). 2. Pour app. 40-45 ml VRB agar (47 ± 2°C) in the Petri dish (= bottom layer) and mix carefully. Leave this to solidify. 3. Pour app. 10-15 ml VRB agar (47 ± 2°C) onto the bottom layer (= covering layer). Leave this to solidify.
CIP and water samples	1. Transfer 1 ml from the undiluted sample to an empty Petri dish (9 cm). 2. Pour app. 20-25 ml VRB agar (47 ± 2°C) in the Petri dish (= bottom layer) and mix carefully. Leave this to solidify. 3. Pour app. 5-10 ml VRB agar (47 ± 2°C) onto the bottom layer (=covering layer). Leave this to solidify

Incubation

Incubate the plates at 34-38°C for 22- 26 hours at aerobic conditions.

Reading

Count the number of typical colonies on the agar plate after 22 – 26 hours incubation, calculate the result, and register the reading.

Size of agar plate	Count colonies on plates with	Typical colonies
9 cm	1-150 per plate	Purplish red with a diameter of ≥ 0.5 mm and sometimes surrounded by a reddish zone of precipitated bile.
14 cm	1-375 per plate	

In case of doubt, the colonies should be examined in microscope, as e.g. enterococci might grow in VRB. Coliform bacteria will appear as small rods.

NOTE: Pink pin-point colonies may be enterococci, possibly *Klebsiella* cf. Merck application brochure. *Aeromonas* also grow on VRB agar and produce red colonies but without a precipitation zone of bile salts. *Aeromonas* can only be distinguished from coliform bacteria by testing for presence of oxidase. However, verification is <u>not</u> performed in this method.

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Calculation

General principles:

The calculation is based on the number of colonies (C_x) on the plate, and the sample volume analyzed (V_x).

The result is stated with two significant figures (e.g. 2.2×10^1).

When Using results from	Then the result is	Where
One dilution	$\frac{C_x}{V_x}$	C_x = no. of colonies V_x = volume analyzed
2 or more dilutions	$\frac{C_1 + C_2}{V_1 + V_2}$	C_1 = no. of colonies in lowest dilution C_2 = no. of colonies in next dilution V_1 = volume analyzed in lowest dilution V_2 = volume analyzed in next dilution

IMPORTANT: When using more than one dilution, the numbers from each dilution are compared (the likelihood of product inhibitions, contamination of the sample, analytical errors etc. is considered). In general, the highest dilution is used. If the result is stated on the basis of other dilutions, the reason must be given in the raw data.

When the sample volume is 1 and 2½ ml, respectively, then V_x is:

Dilution	Volume	Undiluted	10^{-1}	10^{-2}
V_x	1 ml	1 ml	0.1 ml	0.01 ml
V_x	2½ ml	N/A	0.25 ml	0.025 ml

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Calculation *(continued)*

EXAMPLE: Calculation of 1 ml sample on a 9 cm agar plate:

C_x	V_x (g or ml)	Dilution	Result
0	1	10^0	$\frac{0}{1}$ = < 1 / g or ml (LIMS = < 10)
18	1	10^0	$\frac{18}{1}$ = 18 / g or ml

EXAMPLE: Calculation of 2½ ml sample on a 14 cm agar plate:

C_x	V_x (g or ml)	Dilution	Result
0	0.25	10^{-1}	$\frac{0}{0.25}$ = < 4 / g or ml (LIMS = < 10)
1	0.25	10^{-1}	$\frac{1}{0.25}$ = 4 / g or ml
3	0.25	10^{-1}	$\frac{3}{0.25}$ = 12/ g or ml
412	0.25	10^{-1}	$\frac{375}{0.25}$ = > 1.5 x 10^3 / g or ml
53 8	0.25 0.025	10^{-1} 10^{-2}	$\frac{53+8}{0.25+0.025}$ = 2.2 x 10^2 / g or ml

IMPORTANT: When the result entered in LIMS is a „less than" value lower than < 10 / g or ml, LIMS will automatically change this value to "< 10".

Accuracy and precision

CV% = 29%

REFERENCE: LUNA No. 2003-34435

Filing

All documentation should be filed in accordance with the local filing SOP.

Contingencies

All deviations from this SOP should be discussed with the Method Responsible Scientist and should be documented.

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

References

1. ISO 4832 2nd Ed. (1991) Microbiology – General Guidelines for the enumeration of coliforms – colony count technique.
2. ISO 6887-1 1st Ed. (1999) Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspensions and decimal dilutions for microbiological examination – Part 1: General rules for the preparation of the initial suspension and decimal dilutions.
3. LUNA no. 2009-26425-01: Definition of enterobacteria and coliform bacteria at Novozymes.

Revision

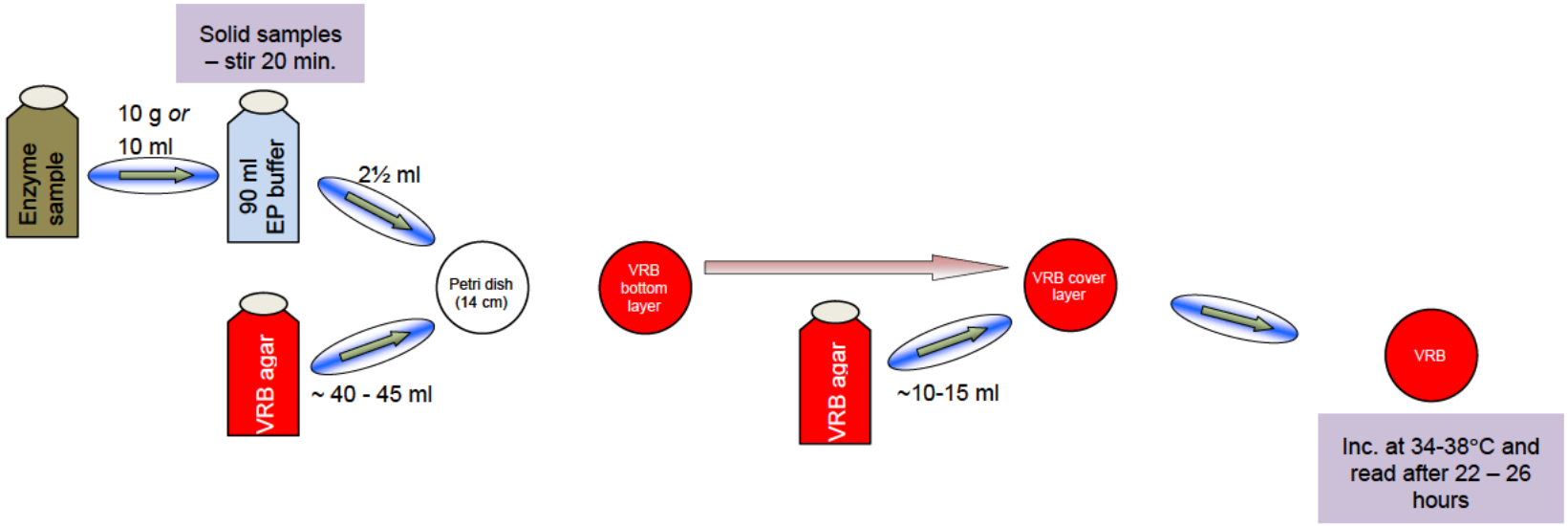
Elaborated on preparation of VRB agar and reference to preparation of VRB agar in US laboratories in the section “Media and reagents”. Changed amount of agar used in the section “Plating” to harmonize with EB-SM-3004 (VRBD agar). Changed incubation time from 1 day to 22 – 26 hours to minimize risk of false negative results – see LUNA No. 2013-04384-01. Added note about growth of non-coliforms and use of microscopy to distinguish enterococci from coliform bacteria in the section “Reading”. Minor editorial changes.

Continued on next page

Enumeration of coliform bacteria using Violet Red Bile agar, *Continued*

Appendix – Flow chart

Flow chart of method analyzing an enzyme sample. Ctrl + Click to read section.



Detection of E. coli in 25 g

Scope

All Novozymes QC laboratories involved in analysis of samples from Novozymes production and GLP studies.

Overview

Principle

Escherichia coli (*E. coli*) is a Gram-negative, indole positive, facultative anaerobic rod. It is considered a faecal indicator.

Detection of *E.coli* in 25 g is carried out as a qualitative analysis using non-selective enrichment in Buffered Peptone Water (BPW) followed by isolation of β-D-glucoronidase positive *E.coli* (blue-green or dark-blue to violet colonies) on a selective indicative agar medium (TBX agar). β-Glucuronidase-negative *E. coli* strains (3-4 %) form colourless colonies on TBX agar, e.g. *E. coli 0157*. The detection of *E.coli O157* is performed as ImmunoMagnetic Separation (IMS) using Dynabeads®antiO157 and plating onto two selective indicative agar media (CT-SMAC agar and ChromAgar O157). Suspect *E.coli O157* colonies are verified using *E.coli O157* Latex test.

Typical colonies from TBX agar and/or *E.coli* O157 Latex positive isolates from CT-SMAC agar and/or ChromAgar O157 are reported as *E. coli* Detected in 25 g

Typical colonies are further verified for Enterovirulent *E. coli* (EEC*)*.

Requested test (LIMS code): E.COLI(25g)

IMPORTANT: E. coli (25g) analysis is usually requested together with Enterovirulent *E. coli* (EEC*)*, Lims code: EV E.coli. If E. coli (25g) is Not Detected (ND) both methods are reported as ND in LIMS. Samples from “Re-processed batches” (E. coli detected first time) may come without the EV.E.coli analysis (already performed).

Continued on next page

Detection of E. coli in 25 g, *Continued*

Principle *(continued)*

The media used has the following characteristic:

Media…	Characteristic…
BPW broth	Non-selective broth.
TBX agar	*E.coli* colonies are coloured blue-green. Growth of accompanying Gram-positive flora is largely inhibited by the use of bile salts. The presence of the enzyme β-D-glucuronidase differentiates most *E.coli* spp. from other coliforms. *E.coli* absorbs the chromogenic substrate 5-bromo-4-chloro-3-indolyl-β-D-glucuronide (X-β-D-glucuronide). The enzyme β-glucuronidase splits the bond between the chromophore 5-bromo-4-chloro-3-indolyle- and the β-D-glucuronide. *E.coli* colonies are coloured blue-green. *NOTE:* For the recovery of sub lethally injured *E. coli*, plates are incubated at 34 - 38°C and not 44°C as recommended by Merck (inhibits growth of accompanying Gram-positive flora).
CT- SMAC agar (MacConkey Sorbitol agar)	Sorbitol negative bacterial (including O157:H7) colonies are transparent and almost colourless with a pale yellowish-brown appearance. Polypeptone favours the growth of Escherichia coli O157:H7. Most other bacteria are inhibited by the association of bile salts, crystal violet, cefixime and potassium tellurite**.** Sorbitol positive bacteria give rise to red colonies, due to the change of the colour of the pH indicator (neutral red).
ChromAgar O157 and CT-Chrom Agar O157	A typical *E.coli O157* will grow as a pale lavender-lilac colour (mauve) colony. Most other bacteria are inhibited or grow as blue or colourless colonies.

Definition of units

The result is stated as:

- DET (*E.coli* Detected in 25 g) *or*
- ND (*E.coli* Not Detected in 25 g) together with EV. E. coli ND (if requested)

Samples

All Novozymes sample types except hygiene samples.

Continued on next page

Detection of E. coli in 25 g, *Continued*

Standards

A positive reference strain can be used, e.g. *E.coli*, ATCC 11229.
If a reference strain of *E.coli O157* is included, it must be *E.coli O157* without the genes coding for Vero Toxins, e.g. ATCC 43888

Detection limit

Theoretical detection limit: 1 *E.coli* in 25 g

Equipment

Balance (± 0.1 g)
Magnetic stirrer
Incubator (34-38°C)
Incubator or Waterbath for pre-heating BPW (40-42°C)
Sterile inoculation loops (1 and 10 µl)
Sterile swabs
Vortex mixer
Pipettes and sterile tips
For ImmunoMagnetic Separation (either mIMS or aIMS):

- For manual ImmunoMagnetic Separation (mIMS):
  - MPC-S Rack and magnet (Invitrogen Cat. No. 120.20) + Eppendorf tubes 1.5 ml (Eppendorf Cat. No. 0030 10.086) + MX-3 Mixer (Dynal Cat. No. 159.09), mixer is optional.

- For automatic ImmunoMagnetic Separation (aIMS):
  - BeadRetriever (Invitrogen Cat. No. 159-50) + Tubes & tips (Invitrogen Cat. No. 150-51)

Continued on next page

Detection of E. coli in 25 g, *Continued*

Media and reagents

- Buffered Peptone Water (BPW) (450 ml) prepared acc. to EB-ME-0009 (Danish sites: MSA-SUB-FS-0427)
- Chromocult ®TBX agar plates (9 cm) prepared acc. to EB-ME-0012 (Danish sites: MSA-SUB-FS-04275)
- Cefixime-Tellurite-Sorbitol MacConkey agar -CT-SMAC (9 cm) prepared acc. to EB-ME-0015 (Danish sites: MSA-SUB-FS-0453)
- ChromAgar O157 agar plates (9 cm) or CT-ChromAgar O157 (5 or 9 cm) prepared acc. to EB-ME-0014 (Danish sites: MSA-SUB-FS-0454)
- Tryptone Soya agar plates (TSA) prepared acc. to EB-ME-0041 (Danish sites: MSA-SUB-FS-0260)
- Dynabeads®anti O157, Dynal Cat. 710.04
- Washing buffer (PBS-Tween 20 buffer), Sigma No. P-3563
- E.coli O157 Latex test kit (for verification), Oxoid No. DR620

IMPORTANT: Preparation in the local laboratory shall be done according to the current valid WW Media direction.

Safety

- It is the responsibility of the laboratory leader that all personnel are aware of the correct handling of enzymes and reagents.
- E. coli O157 Latex test (Oxoid DR0620) is Harmful if swallowed (CLP H302) due to 0.1% Sodium azide.

Transfer of sample to BPW

• **If the sample is …**	**Then transfer 25 g sample to …**
Novamyl SM30 conc. BG (AB…..) Neutrase 1.5 Unstd M (PW…..) Ultraflo Unstd MG (CN …..) Clear Lens Pro 2.5 MG (P…..) Viscoflow MG (KR …..) Flavourzyme 500 MG (HP …..) Ceremix Plus MG (WD …..)	900 ml BPW (Use two 450 ml BPW bottles and transfer 12.5 g to each bottle)
… any other sample	450 ml BPW

NOTE: For liquid samples 25 ml may be used.

Continued on next page

Detection of E. coli in 25 g, *Continued*

Enrichment

The non-selective enrichment may be performed in the following ways:

- Incubate sample in BPW at 34-38°C for 16-24 hours

OR

- Incubate sample in pre-heated BPW at 34-38°C for 16-20 hours.
  - Pre-heating of BPW may take place in water bath (min. 1 hour) or incubator (min. 4 hours) at 40-42°C.

IMPORTANT: Pre-heated BPW is introduced to make it possible to incubate sample for *Salmonella* and *E. coli* in the same bottle when *Salmonella* is analyzed using PCR.

IMPORTANT: For GLP samples (dept. 402) only pre-heated BPW is used.

Detection of β-D-glucoronidase positive E.coli

Detection of β-D-glucoronidase positive *E.coli* is performed in the following way:

- Streak the enriched sample onto the surface of a TBX agar plate using a sterile 10 µl inoculation loop. If 2 BPW bottles streak on 1 agar plate from each bottle.
- Incubate the plate at 34-38°C for 1 day (min. 18 hours).
- Examine the plate for growth of typical E.coli colonies:

Organism	Growth on Chromocult®TBX agar
E.coli	Blue-green or dark-blue to violet colonies colonies (Salmon-GAL and X-glucuronide reaction)
Coliforms *(not E. coli)*	*Salmon to red colonies* *(Salmon-GAL reaction but no X-glucuronide reaction)*
Other Gram-negatives *(not E. coli)*	*Colourless colonies, except for some organisms which possess ß-D-glucuronidase activity. These colonies appear light-blue to turquoise.*

Continued on next page

Detection of E. coli in 25 g, *Continued*

Detection of *E.coli O157*

ImmunoMagnetic Separation (IMS) is performed either as manual IMS (= mIMS) or as automated IMS (= aIMS):

Manual IMS (= mIMS):

Step	Action
1	Place an Eppendorf tube per sample in the rack without the magnet inserted. Gently vortex the Dynabeads®anti O157, and add 20 µl Dynabeads®anti O157 to each tube. Use a lid opener for opening the lids of the Eppendorf tubes.
2	Gently add 1 ml of the pre-enriched sample to the Eppendorf tube. Use a new pipette / pipette tip for each sample. Close the lid. *NOTE:* If sample is divided in 2 BPW bottles take 0.5 ml from each bottle.
3	Incubate the tubes for app. 10 minutes at room temperature. The rack is gently rotated without the magnet on a MX-3 Mixer (Dynal) or by hand.
4	Insert the magnet in the rack. Tilt the rack frequently for app. 3 minutes to ensure a complete collection of beads. With correct capture a distinct circular to oval brownish pellet is formed at the tube site halfway between the top and bottom of the tube.
5	Open the tubes gently by use of the lid opener. Place a Pasteur pipette at the water surface opposite to the pellet. Gently pipette up the supernatant and the liquid in the cap of the tube. Slow down pipetting when the surface of the liquid passes the pellet in order to make sure that no beads leave the tube through the pipette. If beads leave the sample, return the supernatant to the tube and repeat step 4. Use a new pipette / pipette tip for each sample.
6	Carefully add 1 ml of washing buffer to each sample. Do not touch the tube with the pipette / pipette tip since this can cross-contaminate the samples as well as the buffer. Close the lids and remove the magnet from the rack. Wash the bead complex by rotating the rack 3 times. Repeat step 4-6 twice, but the last time the pellet is only re-suspended in 100 µl washing buffer.

Continued on next page

Detection of E. coli in 25 g, *Continued*

Detection of E.coli O157 *(continued)*

Automatic ImmunoMagnetic Separation (aIMS):

Step	Action
1	Load one sample tube for each sample into a sample rack.  *NOTE:* Each sample tube consists of 5 tubes called tube 1-5 (tube 1 is to the left (= slip end), and tube 5 is to the right).
2	Gently vortex the Dynabeads®anti O157 until the pellet in the bottom of the tube disappears, and aseptically add 10 µl properly mixed Dynabeads®anti O157 into sample tubes 1 and 2.
3	Aseptically add 0.5 ml of wash buffer to sample tubes 1 and 2. Aseptically add 1 ml of wash buffer to sample tubes 3 and 4. Aseptically add 100 µl of wash buffer to sample tube 5.
4	Add 0.5 ml of the enriched test sample to sample tubes 1 and 2, be careful not to contaminate other tubes. If sample is divided in 2 BPW bottles take 0.5 ml from each bottle.
5	Repeat step 4 for the remaining samples.
6	Aseptically insert the sterile protective sample tip combs into the instrument.
7	Insert the rack with filled tubes into the instrument to lock it in place.
8	Check that everything is properly aligned. Close the instrument door
9	Select the EPEC/VTEC program sequence by scrolling with the arrow key, and press the Start button.

NOTE: Check that all beads have been transferred to tube no. 5, some sample types can interfere with the IMS. If all beads haven't been transferred to tube 5, repeat *Step 9.* If the problem remains, repeat aIMS with 4 tubes instead of 1 (125µl sample to tube 1 and 2 in 4 tubes). When finished, transfer material from all tube no 5 into 1 tube and continue.

Detection of E. coli in 25 g, *Continued*

Detection of E.coli O157 *(continued)*

Streaking onto selective indicative agar plates:

Each IMS product (from mIMS or from aIMS) is tested for the presence of *E.coli* O157 using selective indicative agar plates:

Step	Action
1	Gently vortex the pellet (IMS-product).
2	Transfer 50 µl IMS-product onto the surface of a CT-SMAC agar plate, and another 50 µl IMS-product to the surface of a ChromAgar O157 plate (or a CT-ChromAgar O157 plate) in the following way: Spread the bead-bacteria complex over one half of the plate with a sterile cotton swab. This ensures the break-up of the bead-bacteria complexes. Dilute further by streaking with a loop.
3	• Incubate the plates at 34-38°C for 1 day (min. 18 hours).

Reading:

Agar	Description
CT-SMAC agar	On CT-SMAC agar, typical E.coli O157 colonies are transparent and almost colourless with a pale yellowish-brown appearance and a diameter of approximately 1 mm. Sorbitol positive organisms form bright red (pink) colonies. In some cases suspect colonies are so few that they can only be recognized in the bacterial lawn in the primary streaking zone. In this case, subculture suspect colony material onto a new CT-SMAC agar plate. If the growth is too weak after 1 day, the plates can be re-incubated for up to 24 hours. In this case representative sorbitol negative colonies (transparent) shall be verified by use of the E.coli O157 Latex kit from Oxoid (see below).
ChromAgar O157 and CT-Chrom Agar O157	A typical *E.coli O157* will grow as a pale lavender-lilac colour (mauve) colony, whereas most other microorganisms are either inhibited or grow as blue or colourless colonies.

Continued on next page

Detection of E. coli in 25 g, *Continued*

Detection of E.coli O157 *(continued)*

Verification of *E.coli O157*: Latex test

Suspect colonies on CT-SMAC agar and ChromAgar O157 (or CT-ChromAgar O157) are verified as suspect *E.coli O157* using O157 Latex test kit from Oxoid. The test will demonstrate by slide agglutination *E. coli* strains possessing the 0157 serogroup antigen

Step	Action
1	Bring latex reagents to room temperature and mix well
2	Control of E. coli O157 latex test: Positiv control: Mix 1 drop Test latex and 1 drop Positive control suspension on test card. Rock card for maximum 1 minute, agglutination should occur within 1 minute Negative control: Mix 1 drop Test latex and 1 drop Negative control suspension on test card. Rock card for maximum 1 minute, agglutination should not occur within 1 minute
3	Test of suspect colony: 1. 1 drop of Test latex and 1 drop of 0.85 % Saline solution onto the reaction card close to the circle border, do not mix! 2. Dissolve 1 colony thoroughly in the Saline solution and mix with Test latex solution 3. Rock the reaction card for maximum 1 minute, agglutination should occur within 1 minute 4. If agglutination occurs (do not use a magnifying glass) the colony is latex positive (i.e. suspect *E. coli* O157).
4	*IMPORTANT:* Test for auto-agglutination (only if step 3 is positive): 1. 1 drop of Control latex mixture and 1 drop of 0.85 % Saline solution onto the reaction card close to the circle border, do not mix! 2. Dissolve 1 colony thoroughly in the Saline solution and mix with Control latex solution 3. Rock the reaction card for maximum 1 minute 4. If agglutination occurs the colony is auto-agglutinating and the reaction in step 3 is a false positive (i.e. colony is latex negative)

IMPORTANT: Agglutination should occur within 1 minute and should be visible without use of magnifying glass

NOTE: Dept. 402 continues directly to EV. E. coli PCR Verification (PSL-SM-3097) and dept. 60895 (Franklinton) may choose (EB-SM-3097)

Continued on next page

Detection of E. coli in 25 g, *Continued*

Interpretation of results

E.coli Detected (DET) in 25 g

- Presence of typical colonies on TBX agar
- Presence of O157 Latex positive colonies from CT-SMAC agar and ChromAgar O157 (or CT-ChromAgar O157), i.e. suspect *E. coli* O157.

E.coli Not Detected (ND) in 25 g

- Absence of typical colonies on TBX agar
- Absence of O157 Latex positive colonies from CT-SMAC agar and ChromAgar O157 (or CT-ChromAgar O157).

Action on results

E.coli Detected (DET) in 25 g

- Report *E. coli* DET in 25 g

If EV. E. coli is requested on sample:

- Streak suspect colonies onto TSA agar and incubate 34-38°C for 18-24 h. *Note:* Dept. 575 (DK) may send selective plate with suspect colonies, when all plates for a given sample are completed to Dept. 402.
- Send TSA plate for verification to:

  Novozymes A/S Mikrobiologisk control Dept. 402
  Krogshoejvej 36, building 1KS.18
  DK-2880 Bagsvaerd
- Send an E-mail to “mkelab” and “JAah” (Responsible Scientist) stating:

  E. coli Detected (subject line) and LIMS no. and/or ID no. of isolate
- Dept. 402 will enter verification result for EV. E. coli in LIMS directly for all sites if not otherwise agreed.

IMPORTANT: Department 60895 Franklinton may perform the EV. E. coli verification for Franklinton/Blair samples.

E.coli Not Detected (ND) in 25 g

- Report *E. coli* ND in 25 g
- Report EV. *E. coli* ND in 25 g (if requested in LIMS)

IMPORTANT: If E. coli DET in GLP samples contact Responsbile Scientist

IMPORTANT: GLP samples are reported in GLP study documentation.

IMPORTANT: EV. E. coli Detected in Finished Goods must be reported to Product Quality Management (PQM)

Continued on next page

Detection of E. coli in 25 g, *Continued*

Sensitivity and specificity

Sensitivity: 100%
Specificity: 100%
REFERENCE: Luna doc.: 2006-04985 ; 2000-05132 ; 2007-28699

Filing

All documentation should be filed in accordance with the local filing SOP.

Contingencies

All deviations from this SOP should be discussed with the Method Responsible Scientist and should be documented.

References

ISO 16649-2 1st Ed. (2001) Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of presumptive *Escherichia coli* - Part 2: Colony-count technique at 44°C using 5-bromo-4-chloro-3-indolyl-β-D-glucoronic acid.

ISO 16654 1st Ed. (2001): Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Escherichia coli O157*.

The detection of *E.coli O157* is in accordance with ISO 16654 with the following exception:

- Enrichment is performed using Buffered Peptone Water at 34-38°C for 16-20 hours. ISO 16654 uses a modified TSB + novobiocin at 41.5°C ± 1°C for 18-24 hours.
- Immuno Magnetic Separation is only performed after 16-20 hours. ISO 16654 states after 6 hours and again, if necessary, after 12-18 hours (i.e. to a total elapsed time of 18-24 hours).
- Verification is performed using *E.coli O157* Latex test. ISO 16654 states indol test and serological test.

Revision

Media and Reagents updated with EB-ME and MSA-SUB-FS links

PQM should be contacted if EV E. coli DET in Finished Goods

Latex kit is not used

GLP revision (relevant for dept. 402 only):

- May only use pre-heated BPW
- If E. coli DET contact Responsible Scinetist
- GLP results are reported in GLP study documentation

Minor revision of text

Continued on next page

Detection of E. coli in 25 g, *Continued*

Flow chart

Flow chart of method, Click Link to read section.

Transfer 25 g sample into BPW bottle

Incubate BPW at 34-38°C for 16-24 h (if pre-heated BPW 16-20 h)

Plate on TBX agar plate

Incubate at 34-38°C for 1 day (>18h)

Read TBX plate

Spread typical colonies onto TSA

Incubate at 34-38°C for 1 day (18-24h)

Send plate for verification

Perform IMS (aIMS or mIMS)

Transfer 50 µl to CT-SMAC / CT Chrom

Spread with cottonswab and loop

Incubate at 34-38°C for 1 day (>18h)

Read CT-SMAC and CT-Crom

Latex test on suspect colonies

Send plate with latex positive for verification

Result	LIMS	Action
No typical colonies on TBX **or** CT-SMAC/CT-Chrom	*E. coli* (25g) ND EV. *E. coli* ND	Analysis is completed
No typical colonies on TBX **and** no latex positive from CT-SMAC/CT-Chrom		
Typical colonies on TBX or latex positive colonies from CT-SMAC/CT-Chrom	*E. coli* (25g) DET	Send plate for EV. *E. coli* verification (if requested)

Detection of Salmonella spp. by cultivation

Scope

All Novozymes QC laboratories involved in analysis of samples from Novozymes production and GLP studies.

Contents

Principle

Detection of *Salmonella* spp. is carried out as a qualitative test. Requested test (LIMS code): SALMONELLA.

The test is based on a non-selective enrichment in Buffered Peptone Water for 18-24 hours followed by selective enrichment in RVs broth or immunomagnetic separation of Salmonella followed by a cultivation method with the Salmonella specific XLD and Rambach agar plates. Suspect *Salmonella* colonies are then verified using Oxidase test and API 20E or API Rapid 20E.

All methods are in-house methods evaluated and validated at Novozymes.

Definition of units

The result is stated as:

- DET (*Salmonella* detected in 25 gram)
- ND (*Salmonella* not detected in 25 gram)

Sample types

All Novozymes samples from production and GLP studies.

IMPORTANT: Hygiene samples are analyzed according to EB-SM-5001.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Standards

A positive reference strain can be included in the test, e.g. *Salmonella adabraka*, *Salmonella havana* or *Salmonella senftenberg.*

Detection limit

Theoretical detection limit: 1 *Salmonella spp.* in 25 g.

Safety

It is the responsibility of the laboratory leader that all personnel are aware of the correct handling of enzymes and reagents.

Equipment and materials

General equipment

- Balance
- Incubator for BPW and agar plates (34-38°C)
- Incubator or water bath for BPW or RVs (40.0-42.0°C)
- Vortex mixer
- Automatic pipettes and sterile tips (10-100 µl, 100-1000 µl, and 1 ml)
- Sterile inoculation loops (1 and 10 µl)

Media and reagents

Enrichment broths

- Buffered Peptone Water (BPW) (450 ml) prepared acc. to EB-ME-0009
- Rappaport Vassiliadis soya peptone broth (RVs broth) (approx. 10 ml) (Oxoid CM0866)

Agar plates and reagents

- XLD agar plates prepared acc. to EB-ME-0069 or (Oxoid Cat. No. PO5057A)
- Rambach agar plates prepared acc. to EB-ME-0033
- BS (Brilliance Salmonella) agar plates (Oxoid Cat. No. PO5098A)
- Tryptic Soy agar plates (TSA) prepared acc. to EB-ME-0041
- Reagent for oxidase test, e.g. Bactident oxidase (Merck Cat. No. 1.13300.0001)
- API Rapid 20E (BioMérieux Cat. No. 20 701) *or* API 20 E (BioMérieux Cat. No. 20 100) + relevant API reagents

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Non-selective enrichment

The non-selective enrichment is performed in the following way:

Step	Description
1	Transfer 25 g or 25 ml sample to 450 ml BPW equilibrated to room temperature. *IMPORTANT:* If any of these products transfer 25 g to 900 ml or 2x12.5g to 2x450 ml BPW bottles. 1. Bio-Feed Alpha CT (AD…..) 2. Bio-Feed Wheat L*H*NbulkL DK (CF…..) 3. Ceremix Plus MG (WD…..) 4. Clear Lens Pro 2.5 MG (P…..) 5. Flavourzyme 500 MG (HP…..) 6. Neutrase 1.5 MG (PW…..) 7. Novamyl SM30 conc. BG (AB…..) 8. Ronozyme HiPhos GT (HK….) 9. Viscoflow MG (KR…..)
2	Cultivation method: If... / Then... Selective enrichment in RVs broth is chosen / Incubate BPW at 34-38°C for 16 - 24 hours Selective enrichment using IMS is chosen / Incubate BPW at 34-38°C for 22 - 26 hours

Selective enrichment in RVs broth

The selective enrichment in RVs is performed in the following way:

Step	Description
1	Transfer 100 µl or 0.1 ml from BPW to 10 ml RVs tubes equilibrated to minimum room temperature. *NOTE:* If 2 BPW bottles are used for one sample transfer 50 µl from each bottle to one RVs broth
2	Incubate the RVs broth at 40.0-42.0°C for 22 - 26 hours. *NOTE:* If water bath is used to incubate RVs there is no need to equilibrate the temperature of the RVs broth.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Selective enrichment mIMS

The selective enrichment using mIMS is performed the following way:

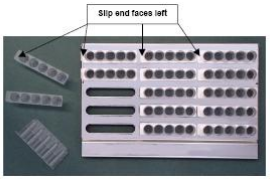
Step	Description
1	Place an Eppendorf tube per sample in the rack without the magnet inserted. Gently vortex the Dynabeads®anti-Salmonella and add 20 µl Dynabeads®anti-Salmonella to each tube.
2	Gently add 1 ml of the pre-enriched sample to the Eppendorf tube. Use a new pipette / pipette tip for each sample. Close the lid. If sample is enriched in 2 BPW bottles transfer 500 µl from each bottle.
3	Incubate the tubes for app. 10 min. at room temperature. The rack is gently rotated without the magnet on a MX-3 Mixer (or similar) or by hand.
4	Insert the magnet in the rack. Tilt the rack frequently for app. 3 min. to ensure a complete collection of beads. With correct capture a distinct circular to oval brownish pellet is formed at the tube site halfway between the top and bottom of the tube.
5	Open the tubes gently by use of the lid opener. Place a Pasteur pipette at the water surface opposite to the pellet. Gently pipette up the supernatant and the liquid in the cap of the tube. Slow down pipetting when the surface of the liquid passes the pellet in order to make sure that no beads leave the tube through the pipette. If beads leave the sample, return the supernatant to the tube and repeat step 4. Use a new pipette / pipette tip for each sample.
6	Carefully add 1 ml of washing buffer to each sample. Do not touch the tube with the pipette / pipette tip since this can cross-contaminate the samples as well as the buffer. Close the lids and remove the magnet from the rack. Wash the bead complex by rotating the rack 3 times. Repeat step 4-6 twice, but the last time the pellet is only re-suspended in 100 µl wash buffer.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Selective enrichment aIMS

The selective enrichment using aIMS is performed the following way:

Step	Description
1	Load one sample tube for each sample into a sample rack.  Each sample tube consists of 5 tubes called tube 1-5 (tube 1 is to the left (= slip end), and tube 5 is to the right).
2	Gently vortex the Dynabeads®anti-Salmonella until the pellet in the bottom of the tube disappears, and aseptically add 10 µl properly mixed Dynabeads®anti-Salmonella into sample tubes 1 and 2.
3	Aseptically add 500 µl of wash buffer to sample tubes 1 and 2. Aseptically add 1000 µl of wash buffer to sample tubes 3 and 4. Aseptically add 100 µl of wash buffer to sample tube 5.
4	For each sample remove the labelled sample tube strip from the sample rack, and place it in a second sample rack. Add 500 µl of the enriched test sample to sample tubes 1 and 2, and return the inoculated tube strip to the first sample rack. If sample is enriched in 2 BPW bottles transfer 500 µl from each bottle. *CAUTION:* Be careful not to cross contaminate, if possible place racks well separated.
5	Repeat step 4 for the remaining samples.
6	Aseptically insert the sterile protective sample tip combs into the instrument.
7	Insert the rack with filled tubes into the instrument to lock it in place.
8	Check that everything is properly aligned. Close the instrument door.
9	Select the Salmonella program sequence by scrolling with the arrow key, and press the Start button.

NOTE: Check that all magnets have been transferred to tube 5 as this may not occur always with some difficult sample types. If all magnets have not been transferred to tube 5, then repeat step 9. If the problem remains then repeat step 1-9 using four sample tubes instead of one. Add only 125 µl enriched test sample to tubes 1 and 2 in each sample tube. Transfer all material from tubes no. 5 into one of the no. 5 tubes (approx. 400 µl in total).

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Detection

RVs broth is tested for the presence of *Salmonella spp.* using two different selective indicative agar plates (XLD agar and Rambach or BS agar):

<table>
<tr><th>Step</th><th>Description</th></tr>
<tr><td>1</td><td>
<table>
<tr><th>If...</th><th>Then...</th></tr>
<tr><td>RVs</td><td>Mix (vortex) RVs broth.</td></tr>
<tr><td>IMS</td><td>Mix (vortex) the pellet IMS-product.</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>
<table>
<tr><th>If...</th><th>Then...</th></tr>
<tr><td>RVs</td><td>Streak 10 µl RVs broth using a 10 µl inoculation loop onto the surface of a XLD agar plate, and streak another 10 µl RVs broth to the surface of a Rambach or BS agar plate. Same inoculation loop may be used.</td></tr>
<tr><td>IMS</td><td>Streak 50 µl IMS-product onto the surface of a XLD agar plate, and streak another 50 µl IMS-product to the surface of a Rambach agar plate.
Spread the bead-bacteria complex over one half of the plate with a sterile cotton swab. This ensures the break-up of the bead-bacteria complexes. Dilute further by streaking with an inoculation loop (1 µl).
NOTE: If IMS has been performed using four sample tubes then streak 200 µl IMS-product on each of the XLD and Rambach agar plates.</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Incubate the plates at 34-38°C for 1 day (minimum 18 hours).</td></tr>
</table>

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Reading plates

Agar	Description
Rambach agar	 Selective principle: Na-desoxycholate inhibit gram-positive flora. Indicative principle: Contains pH indicator, propylene glycol and chromogene. Rambach agar Salmonella • Red colonies – produce acid from propylene glycol. *NOTE: S. arizona* form brownish, green-purple or blue-purple colonies. Coliform • Blue-violet/Blue-green colonies – presence of β-D-galactosidase. Other enterobacteriaceae and gram-negative bacteria (Proteus, Pseudomonas, Shigella, S. typhi and S. paratyphi A) • Colourless-yellow colonies.
XLD	 • Selective principle: Na-desoxycholate inhibits gram-positive flora and coliforms. • Indicative principle: Contains lysine and H_2S indicators. • XLD agar Salmonella • Black colonies surrounded by a transparent, glass-like edge (black colour due to H_2S-production). *NOTE:* Some strains of *S. havana* form gray-brownish colonies (“fish-eye”) as they are H_2S-negative. *NOTE:* Be aware of very small black pin-point Salmonella colonies. Shigella, Providencia, H_2S-negative Salmonella (Ref. 3) and some Proteus and Pseudomonas • Red colonies. Other colonies may be white, greyish black or transparent.

NOTE: Rambach and XLD agar may be stored at cool for up to 48 hours before reading cf. (Ref. 2).

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Reading plates *(continued)*

Agar	Description
BS agar	 Selective principle: Inhibigen inhibit E. coli. Other compounds, e.g. novobiocin and cefsulodin, suppress other bacteria (e.g. Proteus and Psudomonas) and yeasts. Indicative principle: Contains two different chromogenes targeting caprylate esterase and β-D-glucosidase activities. Brilliance Salmonella agar Salmonella • Purple to pink colonies – presence of caprylate esterase. *NOTE: S. dublin* form colorless to light grey-brown colonies. Klebsiella, Enterobacter, Serratia • Blue colonies – presence of β-D-glucosidase. Citrobacter, other bacteria and yeasts • White or colourless colonies

Verification

IMPORTANT: Verification using **API Rapid 20E** tests must always be performed using colonies subcultivated on TSA agar plates incubated at 34-38°C for 1 day.

IMPORTANT: Verification using **API 20E** is traditionally executed with pure colonies cultivated on a non selective agar plate such as TSA agar. However, according to (Ref. 1 and 2) it is possible to perform verification using API 20E directly from the selective XLD, Rambach and BS agar plates.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Verification *(continued)*

Hence, verification using API 20E is performed as follows:

Step	Description	
Day 1	**If...**	**Then...**
A	A suspect colony is present as a single, pure, colony on XLD, Rambach or BS	1. Perform API 20E test using a single, pure colony, from XLD, Rambach or BS agar plate. 2. Subcultivate from the same colony on a TSA agar plate. Incubate at 34-38°C for 1 day.
B	A suspect colony is present but not as a single, pure, colony on XLD, Rambach or BS	1. Streak suspect colony onto new XLD, Rambach and/or BS agar plate and a TSA agar plate. Incubate all plates at 34-38°C for 1 day. 2. **If...** / **Then...** Pure colony on TSA[1] — Proceed with step Day 2B. Pure colony on XLD, Rambach or XLD — Proceed with step Day 1A. *CAUTION:* [1] It may be difficult to identify a Salmonella colony on TSA agar if more than one colony type is present on the agar plate.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Verification *(continued)*

	Description	
Day 2	**If...**	**Then...**
A	A suspect colony is present as a single, pure, colony on XLD, Rambach or BS	1. Perform oxidase test on colony material from TSA agar plate. 2. If... / Then... Oxidase test is positive: Result is ND Oxidase test is negative: Read API 20E test and determine API ID.
B	A suspect colony is present but not as a single, pure, colony on XLD, Rambach or BS	1. Perform oxidase test on colony material from TSA agar plate. 2. If... / Then... Oxidase test is positive: Result is ND Oxidase test is negative: Perform API 20 E test using a single, pure colony, from TSA agar plate.
Day 3	**If...**	**Then...**
B	A suspect colony is present but not as a single, pure, colony on XLD, Rambach or BS	Read API 20E and determine API ID.

IMPORTANT: Verification must always be performed using freshly grown cultures, i.e. verification may not be performed from agar plates stored at cool. If selective agar plates have been stored at cool before reading, fresh cultures must be prepared by subcultivation of suspect colonies on a TSA agar plate incubated at 34-38°C for 1 day.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Verification *(continued)*

Verification Kits

Local procedure SOP for Oxidase and API may be used, e.g. Oxidase test (DK) and API 20E (DK).

Oxidase test (e.g. Bactident Oxidase, Merck Cat. No. 1.13300.0001)

a. Remove a single isolated, well-developed colony from the culture medium with a loop.
b. Apply the colony to the reactive zone of the oxidase strip and distribute with the aid of the loop.
c. After 20-60 seconds compare the test strip with the colour scale provided. If cytochrome c oxidase-positive bacteria are present the reactive zone exhibits a blue to purple colour. If cytochrome c oxidase-negative bacteria are present the reactive zone exhibits remains colourless.

NOTE: If using comparable test, please follow manufacturer directions.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Verification *(continued)*

API Rapid 20E (a 5 hour test)

a. Transfer 1-4 colonies to a “API NaCl 0.85%, 2 ml” vial (corresponding to McFarland 0.5), and mix carefully.
b. Inoculate the API Rapid 20 E strip: With the same pipette, distribute the suspension into the tubes of the strip. To avoid the formation of bubbles at the base of the tube, tilt the strip slightly forwards and place the tip against the side of the cupule.
   - For the CIT test, add 2 drops of the suspension (app. 50 µl) to fill the tube and lower position of the cupule.
   - For the other tests, only fill the tubes (app. 50 µl per tube). The accuracy of the filling is very important.
   - For the underlined tests (LDC, ODC and URE) completely fill the cupule with mineral oil.
c. Incubate the strip at 34-38°C for 4-4½ hours.
d. Read the strips by referring to the reading table (in the package insert) and the picture below:
   - VP test (performed in a safety bench wearing protective gloves): add 1 drop of each of VP 1 and VP 2 reagents. Wait 5-10 minutes. A red color indicates a positive reaction.
   - IND test: add 1 drop of JAMES reagent. The reaction takes place immediately. A red colour indicates a positive reaction.

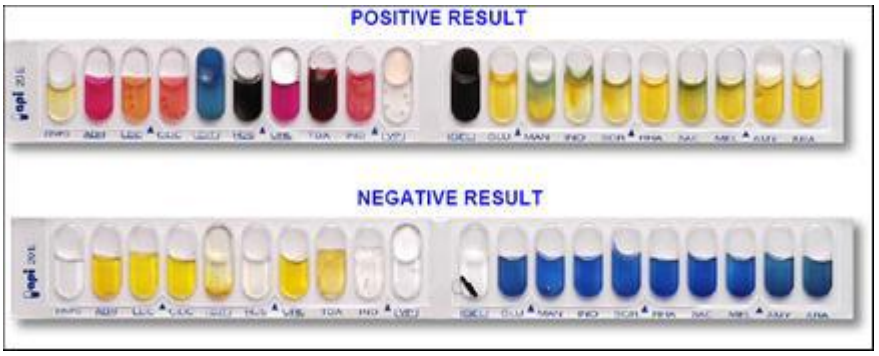
Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Verification *(continued)*

API 20E (a 2 days test)

a. Transfer 1 colony to a “API NaCl 0.85%, 5 ml” vial, and mix carefully.
b. Inoculate the API 20 E strip: With the same pipette, distribute the suspension into the tubes of the strip. To avoid the formation of bubbles at the base of the tube, tilt the strip slightly forwards and place the tip against the side of the cupule.
   - For the CIT, VP and GEL tests, add 2 drops of the suspension (app. 50 µl) to fill the tube and lower position of the cupule.
   - For the other tests, only fill the tubes (app. 50 µl per tube). The accuracy of the filling is very important.
   - For the underlined tests (ADH, LDC, ODC, H_2S and URE) completely fill the cupule with mineral oil.
c. Incubate the strip at 34-38°C for 18-24 hours.
d. Read the strips by referring to the reading table (in the package insert) and the picture below:
   - TDA test: add 1 drop of TDA reagent. A red / brown color indicates a positive reaction.
   - IND test: add 1 drop of JAMES reagent. The reaction takes place immediately. A red color indicates a positive reaction.
   - VP test (performed in a safety bench wearing protective gloves): add 1 drop of each of VP 1 and VP 2 reagents. Wait 5-10 minutes. A red colour indicates a positive reaction.



Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

API Identification

Read and determine ID using API webb:

Step	Action
1	Take out an API worksheet corresponding to the appropriate API strip (20E or Rapid 20E) and mark all the positive and negative results with a + or - .
2	Calculate the total score for each section of three tests on the API worksheet, only positives are tabulated. This will result in a 7 digit profile number.
3	Go to the website below, log-in, and choose the correct API test (either 20E or Rapid 20E): apiwebb™
4	Enter the number for the appropriate group of 3 and hit confirm. Your Identification will appear. *NOTE:* For API 20E, a correct identification require ≥ 80% similiarity. Contact responsible chemist if the ID score is < 80%.

IMPORTANT: In the LDC (Lysine decarboxylase) reaction it can be difficult to distinguish between Yellow/Negative and Orange/Positive. *Citrobacter braakii* may be wrongly identified as Salmonella based on this test. *C. Braakii* is Negative for LDC and Salmonella is Positive. If API identification is Salmonella Detected and LDC is Negative re-test and contact Responsible Scientist.

Interpretation of results

If…	Then report result as…
No suspect colonies on XLD, Rambach or BS agar	*Salmonella* spp. not detected (ND)
Suspect colony on XLD, Rambach or BS agar and colony is oxidase positive	*Salmonella* spp. not detected (ND)
Suspect colonies on XLD, Rambach or BS agar and colony is oxidase negative but API Webb ID score is < 80%	*Salmonella* spp. not detected (ND)
Suspect colonies on XLD, Rambach or BS agar and colony is oxidase negative and API Webb ID score is ≥ 80%	*Salmonella* spp. detected (DET)

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Sensitivity and specificity

Sensitivity: 100% Specificity: 100%
REFERENCE: Luna No. 2008-20805-01.

Filing

All documentation should be filed in accordance with the local archiving SOP.

Contingencies

All deviations from this SOP should be discussed with the Method Responsible Scientist and should be documented.

References

1. LUNA No. 2008-20805-01: Development and validation of two new methods for detection of *Salmonella spp.* in enzyme samples.
2. LUNA No. 2012-02028-01: Hurtigere påvisning af Salmonella samt aflæsning af selektive plader opbevaret på køl. *In Danish*
3. LUNA No. 2012-08403-01: Proficiency Testing Results – January 2012.

Rambach agar, Merck
XLD agar, Oxoid
BS agar, Oxoid

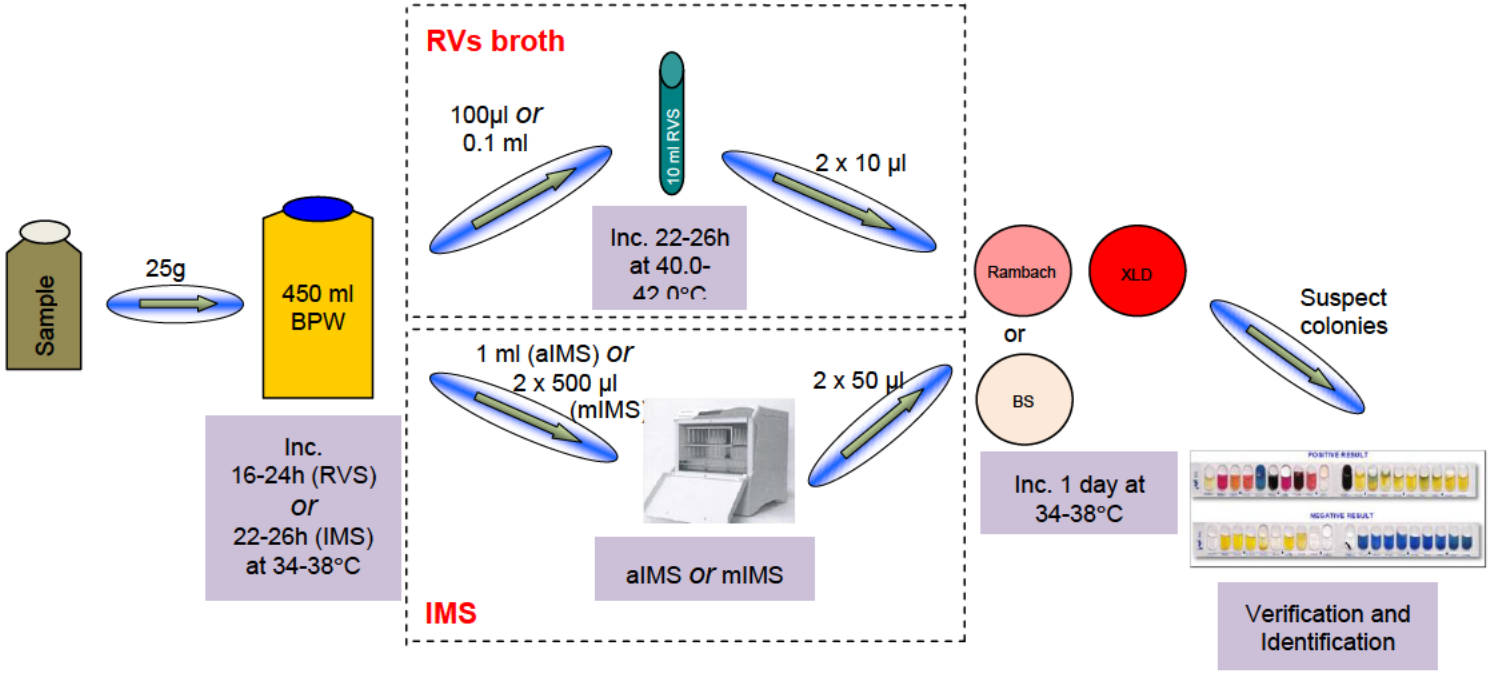
Revision

Title of SOP changed. Detection of Salmonella spp. by PCR transferred to EB-SM-5075. Added that Brilliance Salmonella (BS) agar may be used instead of Rambach agar when selective enrichment is performed using RVs broth but not in combination with IMS (validated in LUNA No. 2008-20805-01). Added amount of RVs broth used for secondary enrichment in the section “Media and reagents”. Minor editorial changes.

Continued on next page

Detection of Salmonella spp. by cultivation, *Continued*

Flow Chart Flow chart of method. Ctrl + Click to read section.



novozymes
Rethink Tomorrow

Analytical method

Luna: 2014-05507-01

Detection of antimicrobial activity

Principle

Detection of Antimicrobial activity is based on the measurement of inhibition of bacterial growth under specific circumstances. The method is in accordance with JECFA (1992). Antimicrobial activity is measured as inhibition zone on agar plates with continues growth of 6 different bacteria.

Definition of units

The result is stated as Antimicrobial activity detected (DET) or Antimicrobial activity not detected (ND)

Equipment, Reagents and Kits

- Balance (± 0.1 g)
- Sterile pipettes for transfer of 100 µl, 1 ml and 10 ml
- Inoculation loops 1 µl
- Paper discs, e.g. S&S Analytical Filter Papers No. 740-E (12.7 mm in diameter), autoclaved
- Bio Safety Cabinet, Class II
- Sterile gloves
- Refrigerator (2-8°C)
- Incubator (34-38°C)
- -80°C freezer (for cryo tubes)
- Ruler or Vernier gauge
- Petri dishes, 9 cm
- Tween buffer 4%
- Tryptone Soya agar (TSA), 90 ml in 250 ml Blue cap bottles
- Tryptone Soya agar plates, 9 cm with app. 15 ml agar (TSA)
- CASO broth in Blue cap bottles
- Ciprofloxacin discs (5 µg or 10 µg) (bought ready to use).

Microorganisms for test plates

- *Staphylococcus aureus,* ATCC 6538
- *Escherichia coli,* ATCC 11229
- *Bacillus cereus,* ATCC 2
- *Bacillus circulans,* ATCC 4516
- *Streptococcus pyogenes,* ATCC 12344
- *Serratia marcescens,* ATCC 14041

Safety

It is the responsibility of the laboratory leader that all personnel are aware of the correct handling of enzymes and reagents.

Preparation of test plates

Day 1

- Inoculate the 6 strains directly from cryo tube in separate 50 ml CASO broth and streak onto TSA agar.
- Incubate the CASO broth and TSA plates overnight at 34-38°C.

Day 2

- Determine Total Viable Count in CASO broth by making a 10^{-4} - 10^{-5} dilutions of the CASO broth and spiral plate onto TSA agar. Incubate the plates overnight at 34-38°C.
- Check TSA plates from Day 1 for contaminates (may not be used if contaminated).
- Transfer 10 ml of the inoculated CASO broth to a 250 ml Blue cap bottle with 90 ml melted and cooled (app.47 °C) TSA . Mix carefully. Note: Only 5 ml of the CASO broth containing *S. pyogenes.*
- Pour app. 10 ml of the TSA-microorganism mixture onto 10 TSA plates (containing app. 15 ml TSA). Distribute the TSA-microorganism mixture evenly on the surface of the TSA plates, and allow solidifying. Control the purity of the CASO broth by streaking out form the last drop of the bottle with a 1 µl inoculation loop onto the surface of one TSA plate and incubate at overnight at 34-38°C.
- Test plates have a shelf life of 1 month when stored at 2-8°C ,
- Verify the 6 different test plates by placing a Ciprofloxacin onto the middle of a test plate and incubate 1 day at 2-8°C followed by 1 day at 34-38°C.

Day 3

- Check TSA plates from Day 2 CASO for contaminates (may not be used if contaminated).
- Count the number of colonies on the TSA spiral plates from Day 2, must be $>10^6$ CFU

Day 4

- Read inhibition zone on TSA plates with Ciprofloxacin from day 2 by measuring the diameter of the inhibition zone on each of the test plates using a ruler or a Vernier gauge. Each zone must be ≥25 mm.

Test procedure

- Transfer 10 g of solid sample or 10 ml of liquid sample to 90 ml Tween buffer 4%. Immediately homogenize the sample by stirring or by shaking. Solid samples are homogenized on a magnetic stirrer for app. 20 minutes.
- Place a sterile paper disc on each of the different 6 test plates and inoculate paper disc with 100 µl 10-1 sample dilution prepared. Up to 5 discs may be placed on each plate, making it possible to analyze 5 products per set of 6 test plates.
- Incubate the test plates 1 day at 2-8°C followed by 1 day at 34-38°C.
- Measure the diameter of the inhibition zone on each of the test plates using a ruler or a Vernier gauge.

Interpretation of results

Test plates are interpreted accordingly to:

Is there…	with a zone measuring…	…the result is
0 inhibition zones	0 mm	Not detected (ND)
X inhibition zones	<16 mm	Not detected (ND)
1 inhibition zones	≥16 mm	Not detected (ND)
2 inhibition zones	≥16 mm	Not detected (ND)
3 inhibition zones	≥16 mm	Detected (DET)

If the result is Detected (DET) a remark is given on which of the test organisms that shows obvious antimicrobial activity in the sample and the size of the zone is stated. The Responsible Scientist is always contacted if a sample has antimicrobial activity.

If not all 6 different test plates are used f. ex. due to plate type not approved Day 4, not used test plates count as DET (f. ex. if 2 test plates are missing and 1 test plate has an inhibition zone ≥16 mm the result is DET)

For registration and GLP samples all 6 test plates need to be approved and used for analysis.

Reference

Joint FAO/WHO Expert Committee on Food Additives (JECFA). Compendium of food additive specifications, Volume 1, Rome 1992, appendix A to annex 1.

Handling of enzymes and chemicals

Enzymes and enzyme solutions should be handled in a fume hood or in closed containers. Avoid inappropriate handling of enzymes and enzyme solutions, which may result in aerosol/dust generation. Avoid inhalation of dust aerosols and contact with skin and eyes. Handling of chemicals and disposal of waste must be performed according to valid procedures.

Validity

Valid from March 2014.

Novozymes A/S
Krogshøjvej 36
2880 Bagsværd
Danmark

www.novozymes.com
info@novozymes.com

Detection of production strains

Scope

All Novozymes QC laboratories involved in analysis of samples from Novozymes production and GLP studies.

Principle

The production strain is defined as the organism used for fermentation of a given Novozymes product. Agar media and incubation conditions used for detection of a specific production strain is listed in BD 001-IN-000

The reference strain is defined as an isolate of the production strain used in the laboratory as a reference during the analysis.

Strains not listed in BD 001-IN-000 are detected according to specific **Analytical Directions** prepared and approved by the EB Method Responsible Scientist. Analytical Directions are typically used in connection with GLP studies.

When analyzing samples from Novozymes production, the detection is carried out by spread plating of 0.1 g or 0.1 ml of sample.

When analyzing samples from GLP studies, the detection is carried out by spread plating or enrichment of 1 g of sample acc. to the specific Analytical Direction.

Detection of morphologically typical colonies (compared with the reference strain) indicates the presence of the production strain.

Definition of units

When analyzing samples from Novozymes production, the result is stated as:

- DET (The productions strain detected in 0.1 g or 0.1 ml) *or*
- ND (The productions strain not detected in 0.1 g or 0.1 ml)

When analyzing samples from GLP studies, the result is stated as:

- DET (The productions strain detected in 1 g) *or*
- ND (The productions strain not detected in 1 g)

IMPORTANT: When detected, the app. number of production strain / g or ml is stated.

Samples

Novozymes products

Continued on next page

Detection of production strains, *Continued*

Detection limit

The detection limit of this method is dependent on the sample volume and the dilution in use.

Sample volume	Size and number of agar plates	Dilution	Detection limit
1 ml, spread plate	14 cm (4 plates)	10^{-1}	10 colonies / g or ml
10 ml, spread plate	14 cm (40 plates)	10^{-1}	1 colonies / g or ml

Equipment

Balance (± 0.1 g)
Magnetic stirrer
Petri dishes (14 cm and 9 cm)
Suitable sterile pipettes for transfer of 10 ml, 1 ml (4x0.25 ml) and 0.25 ml
Sterile Drigalski spatula
Incubator
(relevant incubation temperatures are listed in BD 001-IN-000)

Continued on next page

Detection of production strains, *Continued*

Media and reagents for Bacterial strains

Dilution buffer: Tween buffer 4%, 90 ml (If necessary, with a magnet) prepared acc. to EB-ME-0052

Agar media:

Abbreviation	Full name	Prepared acc. to EB Media direction (link)	Purpose
AT-2	AT-2 agar	EB-ME-0001	Detection & verification
B-TSA	Basic Tryptic Soy Agar	EB-ME-0055	Detection
B-TSA w.CAM	Basic Tryptic Soy Agar with or without Chloramphenicol (CAM) *NOTE:* The addition of CAM is optional	EB-ME-0056	Detection
Schaeffers	Schaeffers agar	EB-ME-0036	Verification
Sch.starch	Schaeffers agar with 1% starch	EB-ME-0037	Verification
Skim milk	Tryptic Soy Agar with 1 % skim milk	EB-ME-0038	Verification
TBX w.AMP	Chromocult®TBX agar + ampicillin (100 mg/l)	EB-ME-0066	Detection
TSA	Tryptic Soy Agar	EB-ME-0041	Detection
TSA w.CAM	Tryptic Soy Agar with or without Chloramphenicol (CAM) *NOTE:* The addition of CAM is optional	EB-ME-0057	Detection
TSA w.kana	Tryptic Soy Agar with kanamycin	EB-ME-0058	Detection

Continued on next page

Detection of production strains, *Continued*

Media and reagents for Fungal strains

Dilution buffer: Tween buffer 4%, 90 ml (If necessary, with a magnet) prepared acc. to EB-ME-0052

Agar media:

Abbreviation	Full name	Prepared acc. to EB Media direction (link)	Purpose
Cove-T-2	Cove-T-2 agar	EB-ME-0013	Detection & verification
DG-18	DG-18 agar	EB-ME-0017	Verification
Phytate	Phytate agar	EB-ME-0028	Verification
Sch.starch	Schaeffers agar with 1% starch	EB-ME-0037	Verification
YPG	YPG agar with or without tetracycline *NOTE:* The addition of tetracycline is optional	EB-ME-0044	Detection
YPSS	YPSS agar with or without tetracycline *NOTE:* The addition of tetracycline is optional	EB-ME-0045	Detection
YSG	Yeast/Soy Peptone/Glucose	MSA-SUB-FS-0064	Verification

If verification on Schaeffers agar with starch is performed then Lugol's iodine solution (0.5%) is used. Lugol's solution is prepared acc. to EB-ME-0021.

Safety

It is the responsibility of the laboratory leader, that all personnel are aware of the correct handling of enzymes and reagents.

Continued on next page

Detection of production strains, *Continued*

Sample preparation

The samples are prepared as follows:

Step	Action
1	Transfer 10 g of solid sample or 10 ml of liquid sample to 90 ml Tween buffer 4%.
2	Immediately homogenize the sample by stirring or by shaking. Solid samples are homogenized on a magnetic stirrer for app. 20 minutes.

IMPORTANT: All enzyme products must be analyzed from a 10^{-1} dilution due to possible inhibition of micro organisms in undiluted enzyme.

Plating

Plating must be done within 15 minutes from end of homogenization. If this is not possible, the sample can be stored at 2-8°C for up to 4 hours.

NOTE: Relevant agar plates and incubation conditions (time and temperature) are listed in BD 001-IN-000

Step	Action
1	*NOTE:* Prepare the test plates: • When analyzing samples from Novozymes production: Transfer 1 ml from the 10^{-1} dilution onto the surface of 4 relevant agar plates (14 cm) with app. 0.25 ml on each plate. • When analyzing samples from Tox batches (GLP): Analyse according to the relevant Analytical Direction.
2	Prepare the 2 positive control plates: • Transfer 0.25 ml from the 10^{-1} dilution onto the surface of 1 relevant agar plate (14 cm), and streak the bacteria reference strain or point inoculate the fungal production strain onto the inoculated plate. • Streak the bacteria reference strain or point inoculate the fungal strain onto another agar plate (not inoculated with sample).
3	Leave the plates on the table until the sample has been soaked into the agar.

Continued on next page

Detection of production strains, *Continued*

Reading

The colonies on the test-plates are compared morphologically with the colonies of the reference strain.

If …	Then ...
No suspect colonies are observed on the test-plates …	The test is ended and the result is stated as: **ND** (the production strain is Not Detected)
Suspect colonies are observed on the test-plates …	The test is continued as described below (Verification).

IMPORTANT: The reference strain must grow on both of the two positive control plates. If not, the test is repeated.

Verification

Suspect colonies from the test plates and the reference strain are streaked or point inoculated onto one or more of the agar plates (9 cm or 14 cm) listed in BD 001-IN-000 (column “Verification”). Inoculation and reading of these agar media are described below. The plates are incubated as described in the column “Verification”. If necessary, these media can be supplemented with other agar media, e.g. the agar medium used for the detection.

AT-2 agar

Detection of pullulanase activity:

	Description
Principle	Pullulanase-producing strains degrade the amylopectin in the agar. As a result, blue zones (haloes) will surround the colonies of the isolate.
Inoculation	Point inoculation
Reading	Colonies of the isolate are compared morphologically with the colonies of the reference strain. The surface of the plates is carefully flooded with Lugol’s solution (0.5%). Blue zones surrounding the colonies in a reddish-brown medium indicate pullulanase activity. *NOTE:* If the production strain produces amylase in addition to pullulanase, clear zones will surround the colony. Between the clear zone and the reddish-brown medium a narrow blue zone might be seen.

Continued on next page

Detection of production strains, *Continued*

Cove-T-2 agar Detection of amdS-transformed fungi:

	Description
Principle	GMO strains transformed with the marker amdS grow well on the agar, while other strains appear with feeble or no growth.
Inoculation	Point inoculation.
Reading	*NOTE:* Colonies of the isolate are compared morphologically with the colonies of the reference strain. Vigorous growth on Cove-T-2 indicates presence of an amdS-transformed strain.

DG-18 agar Comparison of morphology of fungi:

	Description
Principle	DG-18 is a general growth medium for Fungi. The agar is used for comparison of morphology of fungal isolates with the reference strain.
Inoculation	Point inoculation
Reading	*NOTE:* Colonies of the isolate are compared morphologically with the colonies of the reference strain.

Phytate agar Detection of phytase activity:

	Description
Principle	Phytase-producing strains degrade phytate in the agar. As a result, clear zones (haloes) will surround the colonies of the isolate.
Inoculation	Point inoculation
Reading	*NOTE:* Colonies of the isolate are compared morphologically with the colonies of the reference strain. Before inoculation the plates are opaque. The presence of phytase activity is indicated by presence of clear zones (haloes) surrounding the colonies.

Continued on next page

Detection of production strains, *Continued*

Schaeffers agar

Sporulation test (Bacillus spp.):

	Description
Principle	Schaeffers agar induces sporulation of wild type strains, but the production strains show no sporulation on Schaeffers agar after incubation for 2-3 days.
Inoculation	Point inoculation
Reading	*NOTE:* Colonies of the isolate are compared morphologically with the colonies of the reference strain. The colonies are examined by microscopy for sporulation. The production strain shows no sporulation after incubation for 2-3 days.

Schaeffers starch agar

Detection of amylase activity (all isolates) and sporulation test (Bacillus spp.):

	Description
Principle	Bacillus spp.: Schaeffers agar induces sporulation of wild type Bacillus strains, but the Bacillus production strains show no sporulation on Schaeffers agar after incubation for 2-3 days. Bacillus spp. & Fungi: Amylase producing strains degrade the starch in the agar. As a result, in clear zones (haloes) will surround the colonies of the isolate.
Inoculation	Point inoculation
Reading	Colonies of the isolate are compared morphologically with the colonies of the reference strain. Bacillus spp.: The colonies are examined by microscopy for sporulation. The production strain shows no sporulation after incubation for 2-3 days. Bacillus spp. & fungi: The surface of the plates is carefully flooded with Lugol's solution (0.5%). Clear zones around the colonies in a blue (dark blue) indicates amylase activity.

Continued on next page

Detection of production strains, *Continued*

Skim milk agar Detection of proteolytic activity:

	Description
Principle	Protease-producing strains degrade the skim milk in the agar. As a result, clear zones (haloes) surround the colonies of the isolate.
Inoculation	Point inoculation
Reading	*NOTE:* Colonies of the isolate are compared morphologically with the colonies of the reference strain. Before inoculation the plates are opaque. Presence of clear zones (haloes) surrounding the colonies of the isolate after end of incubation indicate the presence of a proteolytic activity.

Calculation

The result is stated on the basis of the number of typical colonies.

- No typical colonies: ND (Production strain not detected in 0.1 g or 0.1 ml)
- Typical colonies: DET (Production strain detected in 0.1 g or 0.1 ml).

If detected, the app. number of production strains / g or ml is stated.

IMPORTANT: If any production strain is detected, the Method Responsible Scientist is contacted immediately. In addition, QCC-cor is informed by mail.

Accuracy and precision

The theoretical detection limit is:

- When analysing samples from Novozymes production:
  10 production strains / g or ml
- When analysing samples from GLP studies:
  1 production strains / g

Archiving

All documentation should be archived in accordance with the local archiving SOP.

Continued on next page

Detection of production strains, *Continued*

Contingencies All deviations from this SOP should be discussed with the Method Responsible Scientist and should be documented.

References BD 001-IN-000

Revision "EB – Productions Strain list" changed to BD 001-IN-000

Document:	Method UT015a	**No.:**	2.1

Title:	Methods for Determination of Elements in Solid and Liquid Enzyme Samples and Samples of Polysaccharides by ICP-MS with Microwave-induced Sample Preparation		**Effective date:**	01.04.2014
			Supersedes:	2.0
			To be revised:	April 2017
Prepared by:	NB	**Approved by:** EVJ	**Date:**	01.04.2014

Danish Technological Institute 18.03.2014

Chemistry and Microbiology – Taastrup

[redacted]

Area of application

The method is applicable to solid and liquid enzyme samples and samples of polysaccharides for the ICP-MS determination of:

Ag, As, Bi, Cd, Co, Cu, Hg, Mo, Ni, Pb, Sb, Sn and Zn.

The method determines the total content of the specified elements in the stated matrices. The results are used in connection with product control.

The total heavy metal content given by ∑T comprises the elements Ag, As, Bi, Cd, Co, Cu, Hg, Mo, Ni, Pb, Sb and Sn. ∑T is reported as less than the sum of the product limits for the heavy metals stated in Table 1, where they cannot be detected in a sample. In cases where one or more heavy metals are measured in a concentration above the stated product limit(s), the measured value is included in the amount, which will then be a figure greater than 4.1 mg/kg.

The elements in Table 2 are not comprised by the accredited method, but are continually analysed with the accredited elements.

Table 1. **Detection and product limits**

Element	DL accr. no. 90 ppm (mg/kg)	Product limit ppm (mg/kg)	DTI product limit ppm (mg/kg)
Ag	0.01	-	0.5
As	0.02	3	0.3
Bi	0.01	-	0.5
Cd	0.01	0.5	0.05
Co	0.01	-	-
Cu	0.02	1	0.5
Hg	0.01	0.5	0.05
Mo	0.02	-	0.1
Ni	0.04	1	0.5
Pb	0.02	5	0,5
Sb	0.02	-	0.5
Sn	0.01	-	0.5
Total heavy metal content, ∑T		30	4.1

Table 2. **Non-accredited elements**

Element	DL ppm (mg/kg)	Product limit ppm (mg/kg)	DTI product limit ppm (mg/kg)
Cr	0.01	-	0.1
Se	0.02	-	0.2
Zn	0.1	-	0.5

Table 3. **Measuring capability**

Measuring capability

Parameter	Upper meas. limit mg/kg	Quanti-zation limit mg/kg	Detection limit mg/kg	%RSD
Ag	5	0.5	0.01	15
As	10	0.1	0.02	15
Bi	5	0.5	0.01	15
Cd	5	0.05	0.01	17
Co	5	0.1	0.01	15
Cu	10	0.1	0.02	30
Hg	5	0.03	0.01	16
Mo	10	0.1	0.02	16
Ni	10	0.1	0.04	22
Pb	100	0.5	0.02	17
Sb	5	0.5	0.02	20
Sn	5	0.5	0.01	20

See annex 2 for uncertainty budgets.

Principle

After the dry or liquid product has been weighed, it is destroyed with nitric acid in closed PFA autoclaves by microwave-induced heating. The destroyed material is then diluted, filtered and analysed by ICP-MS for content of Ag, As, Bi, Cd, Co, Cu, Hg, Mo, Ni, Pb, Sb, Sn and Zn.

Laboratory equipment

Weighing boats, plastic disposable syringes
Analytical balance ± 0.1 mg
Microwave oven
100-150 ml PFA autoclaves
Funnels (d = 40 mm with thick stalk)
Filter paper Munktell OOK (d = 110 mm, d = 90 mm)
Volumetric flasks, 50 and 100 ml
Polyethylene vessels, 50 and 100 ml (e.g. Kautex, Nalgene)
Fine pipettes
Autosampler glass, 15 and 50 ml (e.g. Hounisen PP)

Reagents

Demineralised water Millipore Q-plus concentrated nitric acid (HNO_3 14 M) subboiling prepared from Merck p.a.

1.75 M and 2.8 M HNO_3 from concentrated nitric acid (Subboiling). See Instruction T1801c for preparation

Standards

Standards of 0, 1, 5 and 10 ng/ml of the elements in 2.8 M HNO_3 prepared as per Instruction T1801c, although standards of 0, 0.5, 1 and 2 ng/ml are used for Hg.

Calibration control

Use a "Control I" of 10 ng/ml for calibration control solution and a "Control IV" of 50 ng/ml for linearity, likewise prepared as described in Instruction T1801c. For Hg use a control Hg_1 of 1.0 ng/ml prepared as per Instruction T1801c.The operational acceptance criterion for control I, IV and Hg_1 are within ± 10% of the control value; if that is not met, the person responsible for the analysis should be consulted. Control I and Hg_1 are recorded in control charts. See Instruction T 1804.

Control samples

Merck ICP multielement standard solution VI, prepared as the sample, is included as control sample for preparation. The operational acceptance criterion for Merck VI is ± 10 % of the control value; if that is not met, the person responsible for the analysis should be consulted.

Merck VI is further recorded in control charts. See Instruction T 1804.

Sample handling

Solid samples are stored at room temperature.

Liquid samples are stored in a refrigerator at < 5°C until the time of analysis.

Samples received frozen are stored in a freezer until the time of analysis and then they are defrosted in a refrigerator.

Preparing equipment

Cleaning

The PFA autoclaves are cleaned with 20 ml conc. HNO_3 per vessel by microwaving for 20 minutes at 100% and then they are rinsed with demineralised water.

Preparing samples

Solid samples

0.5 ± 0.1 g of sample is weighed to 4 decimal places in a weighing boat and transferred to a PFA autoclave, and then the weigh boat is reweighed. When weighing highly viscous enzyme samples, a disposable syringe can be used with advantage as a weighing bottle.
The sample is suspended in 20 ml 7 M HNO_3.

The autoclave is closed, placed in the carrousel and microwaved for 35 minutes at 630 W with regulation to max. 230 °C and 20 bar in accordance with the instructions for use of the microwave oven.

After cooling the autoclaves are opened.

The contents are filtered into a 50 ml acid-rinsed volumetric flask with demineralised water and diluted to volume with demineralised water. The filtrate is stored in a polyethylene vessel.

Liquid samples

1 ± 0.5 g of sample is weighed to 4 decimal places in a weighing boat and transferred to a PFA autoclave, and then the weighing boat is reweighed. When weighing highly viscous enzyme samples, a disposable syringe can be used with advantage as a weighing bottle.
The sample is suspended in 20 ml 7 M HNO_3.

The autoclave is closed, placed in the carrousel and microwaved for 35 minutes at 630 W with regulation to max. 230°C and 20 bar in accordance with the instructions for use of the microwave oven.

After cooling the autoclaves are opened.

The contents are filtered into a 50 ml volumetric flask with demineralised water and diluted to volume with demineralised water. The filtrate is stored in a polyethylene vessel.

The analysis for heavy metals (Ag, As, Bi, Cd, Co, Cu, Hg, Mo, Ni, Pb, Sb, Sn and Zn) is carried out as duplicate determinations.

At least 2 blind samples are prepared accordingly for each sample series.

Analysis

The analysis is performed by ICP-MS (Inductively Coupled Plasma Mass Spectrometry) in CCT mode with He as collision gas using external standards in 2.8 M HNO_3, and continuously adding the internal standards in 0.14 M HNO_3 to the carrier solution.
Typical instrument parameters are stated in Tables 4 and 5.
A calibration blank of 2.8 M HNO_3 is prepared.
The system is rinsed with 1.75 M HNO_3 (carrier).
The autosampler probe is rinsed with 1.75 M HNO_3 (from Subboiling).

An example of a routine analysis set-up is shown in Annex 1. It will typically include the calibration blank, a standard series, quantification limit controls at 2 levels, e.g., 0.1 and 0.5 ng/ml, Control I and IV, an Hg control, and a double-determination on a control sample (Merch VI) that is entered on the control chart.

After every 10 – 12 samples, or on completion of a run, a calibration blank and controls I and Hg_1 are analysed.

The controls should not deviate more than stated under 'calibration control'.

%RSD of the measurements of the quantification limit control 0.1 ng/ml should be less than 20 %, if this is not the case, the requirement shall be fulfilled for the quantification limit control 0.5 ng/ml.

See Table 1 for detection limits.

An automatic dilution factor should never be used.

Generally, the sample is diluted at concentrations of the analysis subject greater than 50 ng/ml. Alternatively, the sample is re-analysed by ICP-AES for these parameters.

A tox batch sample is reanalysed when %RSD is larger than 20% for a double determination of an element, when the concentration is above the quantification limit of the method. All valid subresults are reported. This applies only for tox batch/GLP samples.

Table 4. **Spectrometer parameters**

Element	Mass	Dwell time	CCT/He	Resolution	Notes
Ag	107	0.01	KED	H	
As	75	0.04	KED	N	
Bi	209	0.01	KED	H	
Cd	111	0.04	KED	N	
Co	59	0.01	KED	N	
Cr	52	0.01	KED	N	*
Cu	65	0.01	KED	N	
Ge	72	0.01	KED	N	IS
Hg	202	0.05	KED	N	
Mo	98	0.01	KED	N	
Ni	60	0.01	KED	N	
Pb	208	0.01	KED	H	
Re	187	0.01	KED	N	IS
Rh	103	0.01	KED	N	IS
Sb	121	0.01	KED	H	
Se	77	0.04	KED	N	*
Sn	120	0.01	KED	H	
Zn	66	0.01	KED	N	*

IS denotes internal standards.

CCT with He as collision gas and with KED

Resolution: N = normal resolution, H = high resolution

* denotes that elements are not covered by the accreditation.

Table 5. **Plasma parameters**

Plasma flow (l/min)	15
Neb. flow (l/min)	0.9-1.1
Aux. flow (l/min)	0.8
CCT 1 (ml/min.)	4.8
RF power (W)	1550
Pump (rpm)	40
Main runs	3
Number of sweeps	15

Calculation

Data processing and calculation of results

Data from the ICP-MS software is transferred via the same software to excel format for further calculations.

Calculation principle:

The concentration in the sample, C_{sample}, is calculated as follows:

$$C_{sample} = (V \cdot (F \cdot C_{measured} - C_{blank}))/m_{sample}$$

where

$C_{measured}$ is the concentration in the measuring solution
C_{blank} is the concentration in the blind sample. If C_{blank} is < the detection limit the value 0 is used
F is the dilution factor (normally 1)
V is 50 ml m_{sample} is the amount of weighed sample.

If the result is stated on dry matter basis, C_{sample} must be corrected for per cent dry matter (%DM).

$$C_{sample} = (100 \times C_{sample})/\%DM$$

Reporting

Reports on liquid and solid samples and samples of polysaccharides are reported directly on the analysis requisition forms and that are returned by mail. The following information must be stated on the requisition form:

- Date of receipt/initials.
- Samples ID no. of the Laboratory for Chemistry and Microbiology.
- Date/initials.
- Results for the parameters selected by the person placing the order.

After mailing, the assignment is considered to have been reported.

For Toxbatch/GLP samples the analysis is considered to be finished , when the results have been mailed whereupon the sample shal be disposed.

In the case of tox batch samples (GLP assignments), an authorised written report of the analysis is sent with full documentation in the form of an annex.

The annexes comprise:

1) Registration slip.
2) Weighing chart with weight ID no.
   Forms for preparation of intermediate dilutions, standards incl. standards for Hg and for control I and Hg_control.
   Sample List, Calibration Curves, calculations and Raw Data all in excel format.
   On the first page of the printed raw data, the instrument ID no. is specified, e.g., T-1.0024 for Thermo iCAP Q. The raw data sheets are clipped together or collected in a plastic cover.
3) Instrument Parameter Settings.

All documents are stamped on the first page with the studio number.

Safety

Nitric acid HNO_3 conc.

Hazard symbols: O (oxidising) + C (corrosive).

R/S phrases: R8-35 S 23-26-36
Etching hazard
Highly inflammable when in contact with flammable material
Irritating to respiratory system
In case of contact with eyes, rinse immediately with plenty of water and contact a doctor
Wear special protective clothing and protective gloves
In case of accident or if you feel unwell, seek medical advice immediately (show the label).

Spills: Absorb with ABSOL. Strong ventilation.

Precautions: Work with nitric acid should be carried out in a fume hood, wearing gloves and safety goggles.

See directions for use.

Especially when weighing powdery enzyme samples wear a mask and safety gloves. See reference 5 on handling enzyme samples.

Literature

1. Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma Mass Spectrometry. U.S. Environmental Protection Agency. Method 200.8, Revision 4.4, April 1991.

2. Users Manual
Thermo Fisher Scientific, iCAP Q Operating Manual rev. C1288090

3. Report 17661, 21.12.1995:
"Comparative analysis of 9 granulated enzyme samples and of 11 liquid enzyme samples for element contents by FI-ICP-MS and ICP-AES".

4. "Enzymes and you – a guide for laboratory workers".
Novo Nordisk A/S.

Annex 1 Sample List

Annex 2 Uncertainty budgets

Document:	Method UT015a	No.:	2.1

Correction log

Correction page no.	Previous version	New version
Page 2	3.0 mg/kg	4.1 mg/kg
Page 2	Table 1- Total heavy metal content 40	Table 1- Total heavy metal content 30
Page 4	"Control II" of 250 ng/ml	"Control IV" of 50 ng/ml for linearity
Page 4	Control sample	Control sample for preparation
Page 7	e.g. 0.1 and 0.5 ng/ml, Control I and II	e.g. 0.1 og 0.5 ng/ml, Control I and IV
Page 7	Detection limit controls	Quantification limit controls
Page 7		%RSD of the measurements of the quantification ..
Page 7	greater than 500 ng/ml	greater than 50 ng/ml
Page 8		in CCT mode with He as collision gas
Page 9	Table 4	Table 4, changed and added parameters
Page 9	Table 5	Table 5, changed and added parameters
Page 10	Data from ICP-MS software is tranferred to external…..	Data from the ICP-MS software is transferred to excel …
Page 10		For Toxbatch/GLP samples….
Page 11	Sample Batch Report, Dataset Report, calculations and Raw Data	Sample List, Calibration Curves, calculations and Raw Data all in excel-format
Page 12	T 1.0012 for PE Sciex Elan 5000	T 1.0012 deleted
Page 12	Users Manual ELAN 5000 ….	Deleted
Page 12		Users Manual Thermo Fisher Scientific, iCAP Q...

Analytical Report

Screening of enzyme product for mycotoxins

Technical University of Denmark

[redacted]

December 2013

DTU Systems Biology
Department of Systems Biology

1. Aim

To screen 4 batches (PFFR118, PFFR119, PPF26813 and PFFR121) of enzyme concentrate from Novozymes for mycotoxins and secondary metabolites.

2. Background

Fusarium venenatum is a cereal infecting fungus especially known for producing the highly cytotoxic trichothecene, Diacetoxyscirpenol (DAS) (CAS 2270-40-8) in very high amounts.

Besides DAS, fusarin C (CAS 79748-81-5, including 8 other analogues) and butenolide (CAS 16275-44-8) are considered mycotoxins (although not even close in toxicity compared to DAS).[1]
Please note that the name butenolide is also used for a number of other compounds, so data should be checked via the CAS number or structure.

Enniatins are also toxic to mammalian cells, but are presumably non-toxic in-vivo due to no bio availability or instability in mammalians.

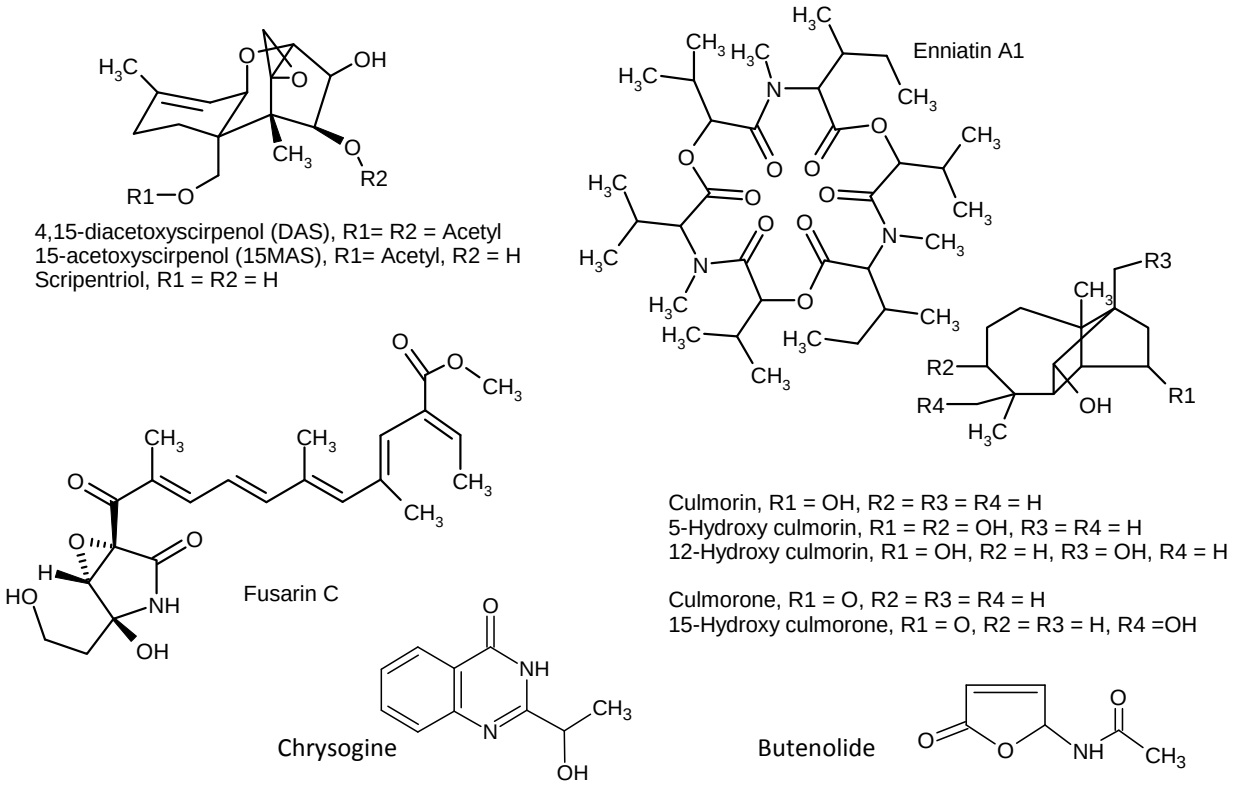


Figure 1. Metabolites of *Fusarium venenatum*

2. Materials and methods

The liquid samples were kept at 5˚C prior to analysis (within 5 days). The samples were shaken and 1.0 ml carefully transferred to a 15-ml Falco tube.

All samples were them processed in 2 ways:

Method 1. Where 2-ml acetonitrile was added and the samples vortexed 3 times for 1 min, then the tube was centrifuged at 5000 g for 4 min and 1 ml supernatant transferred to an auto-sampler vial.

Method 2. Where 1-ml 2-propanol was added and the samples vortexed 3 times for 1 min, then the tube was centrifuged at 5000 g for 4 min and 1 ml supernatant transferred to an auto-sampler vial.

UHPLC-DAD-TOFMS

Samples were processed by 2 methods:

Method 1.

UHPLC-DAD-TOFMS

Extract was analysed by UHPLC on an Agilent 1290 system (Agilent technologies, Santa Clara, CA, USA) equipped with a 25 cm, 2mm ID, 2.6 µm Agilent Poroshell phenyl hexyl column, and a coupled to an Agilent 6550 quadrupole Time of Flight (qTOF) high resolution mass spectrometer equipped with an electrospray source. The qTOF was operated 2 GHz in the extended dynamic range mode at a resolution of 30 000 FMWH.1

Separation of 0.1 and 1 µL subsamples were done at 60˚C and a flow of 0.35 ml/min using a linear water-acetonitrile system both containing 20 mM formic acid, staring with 10% acetonitrile going to 100% in 15 min, and keeping this for 2 min prior to returning to the start conditions.

The QTOF was operated in positive mode scanning making full scans from m/z 100 to 1700 four times per sec. Furthermore was auto-MS/MS was enabled, providing MS/MS spectra (m/z 30-1700) from all major chromatographic peaks with mass in the range m/z 150-900. MS/MS was done by 3 consecutive collision energies of 10, 20, and 40 eV with MS/MS isolation (q1) isolating ±0.7 Da.[2]

Data files were inspected for all known *Fusarium* mycotoxins by accurate mass screening for known pseudomolecular ions. Furthermore were the MS/MS data searched for known compounds in our library of 850 MS/MS spectra. Major secondary metabolites from *Fusarium* were also searched for.

Method 2. (butenolide)

The Dionex Ultimate 3000 UHPLC was equipped with a Diode array Detector scanning from 200-600 nm, and a Phenomenex (Torrance, CA) Kinetex PFP, 2.6 µm particles, 100 × 2 mm column. Separation was performed with water and acetonitrile both containing 20 mM formic acid. A flow of 0.4 ml/min was used, starting with 0% acetonitrile raising to 65% in 8 min, then to 100% in 2 min and kept at 100% for 3 min.

HRMS detection was performed on a Bruker maXis G3 QTOF in ESI^+ mode with a scan ranges of m/z 100-1000. A resolution of > 50 000 (half peak height) was achieved. Each sample was calibrated on sodium formate in the start of the run[3].
In this method only butenolide as determined based on the $[M+H]^+$ ion ± 2 ppm.

Method validation

Based on the potential metabolites of *Fusarium venenatum*, the detection limits of the 3 analytes: Butenolide, -Diacetoxyscirpenol, and Fusarin Cin the enzyme concentrates were determined.

Here 2 tubes with 1 ml of the PFFR118 was spiked with 10 µL of each of: butenolide (100 µg/ml), DAS (100 µg/ml), and Fusarin C (50 µg/ml). One tube was extracted with method 1 and 1 with Method 2.

4. Results

The acetonitrile extraction method produced the cleanest samples for all 3 spiked analytes and were thus used. Figure 2 shows the spiked and none-spiked chromatograms of the sample PFFR118, thus proving that the analytical method works for these metabolites. The columns used for the Agilent method was not targeting highly polar analytes like butenolide and could not retain butenolide, creating false positive results for butenolide.

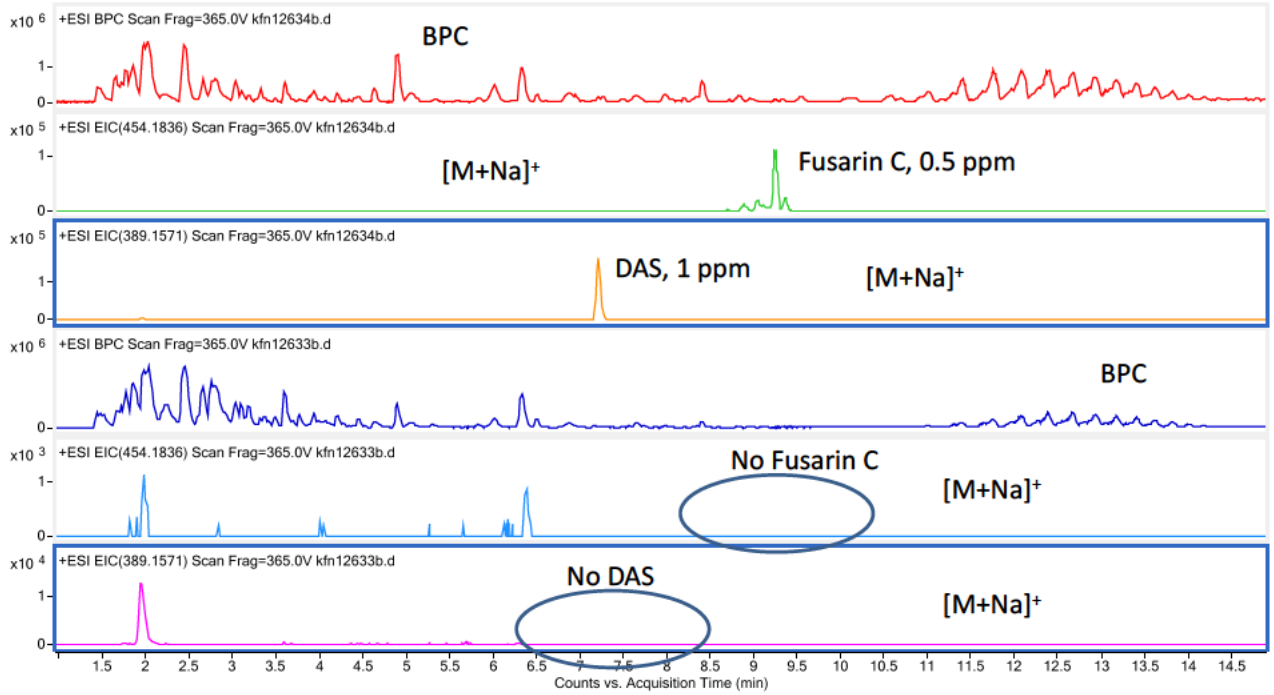


Figure 2. UHPLC-QTOF (Agilent) screening of PFFR118 spiked (upper 3 traces, first base peak chromatogram) showing Fusarin C and DAS, while the unspiked PFFR118 (lower 3, first base peak chromatogram) did not show DAS nor fusarin C.

Subsequently was butenolide analysed on the Bruker maXis QTOF which also have a higher resolution MS resolution and was equipped with a high-polar column, and now the spiked butenolide could be resolved (Figure 3).

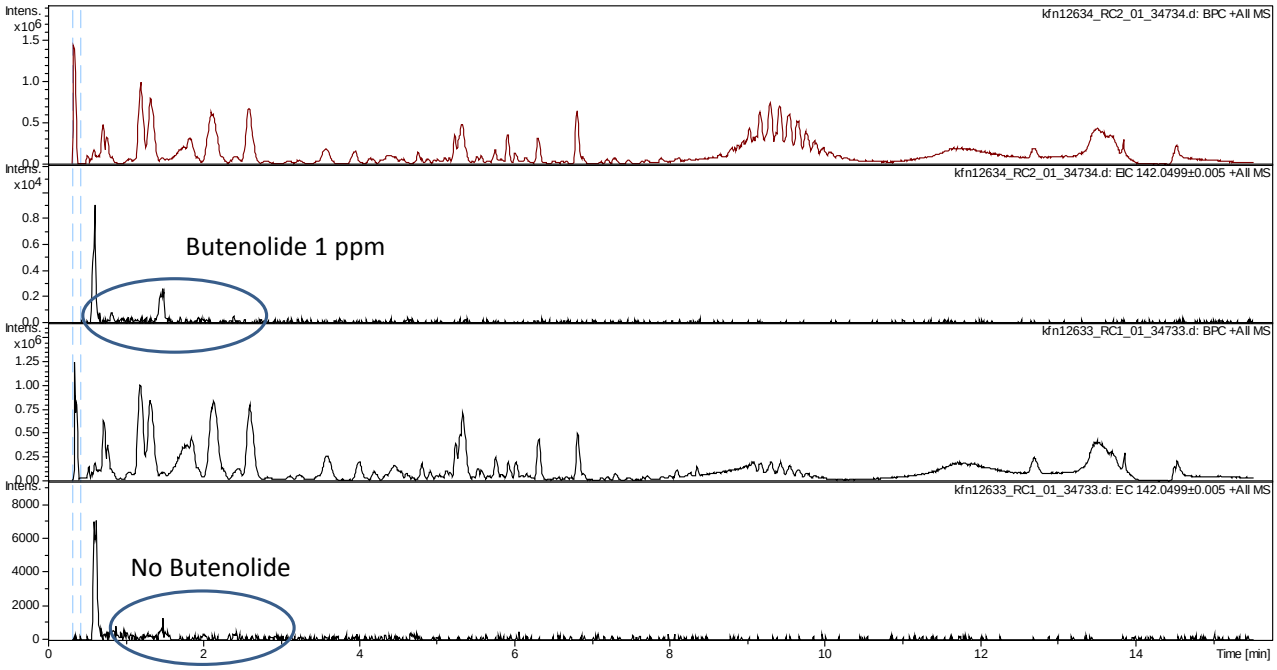


Figure 3. UHPLC-QTOF (Bruker maXis) screening of PFFR118 spiked (upper 2 traces, first base peak chromatogram) showing the butenolide peak, while the unspiked PFFR118 (lower 2, first base peak chromatogram) did not show butenolide.

Based on the peak heights and signal to noise in the spiked sample it is estimated that the limits of detection of the 3 target analytes were:

- LOD butenolide : 0.5 ppm (µg/ml)
- DAS 20 ppb (ng/ml)
- Fusarin C 20 ppb (ng/ml).

None of the 3 analytes suffered for more than 30% signal reduction when compared to pure standard mix injected.

Screening both using our in-house MS/MS library (850 compounds) and by elemental compositions of 156 *Fusarium* compounds including all fusarins (A, D, B, PM), chrysogin, and analogues of DAS known from *F. venenatum*.

5. Conclusion

No *Fusarium* mycotoxins nor secondary metabolites from this fungal genus could be detected in the four batches: PFFR118, PFFR119, PPF26813 and PFFR121.

Using spiked product, limits of detection were estimated for diacetoxyscirpenol, fusarin C, and butenolide, to 20, 20, and 500 ppb respectively.

[redacted]

[redacted]
Associate professor, Ph.D.
18th December 2013

Reference List

1. Thrane, U.; Hansen, U. Chemical and Physiological Characterization of Taxa in the Fusarium-Sambucinum Complex. *Mycopathologia* **1995,** *129* (3), 183-190.

2. Broecker, S.; Herre, S.; Wust, B.; Zweigenbaum, J.; Pragst, F. Development and practical application of a library of CID accurate mass spectra of more than 2,500 toxic compounds for systematic toxicological analysis by LC-QTOF-MS with data-dependent acquisition. *Anal. Bioanal. Chemistry* **2011,** *400* (1), 101-117.

3. Klitgaard, A.; Iversen, A.; Andersen, M. R.; Larsen, T. O.; Frisvad, J. C.; Nielsen, K. F. Aggressive dereplication using UHPLC-DAD-QTOF - screening extracts for up to 3000 fungal secondary metabolites. *Anal. Bioanal. Chem.* **2014,** *Accepted for publication*.

Appendix 4

Documentation regarding the manufacturing process

1. Statement on compliance of Good Manufacturing Practices, Food
2. ISO 9001:2008 certificate

novozymes
Rethink Tomorrow

To Whom It May Concern

March 18, 2013
Statement no. 401.13

Statement on Good Manufacturing Practice - GMP
- general description of production, control and hygiene

Novozymes A/S is a manufacturer of enzymes used in the food industry. We hereby certify that:
The products are produced according to good manufacturing practices for manufacturing, packing, or holding human food in order to prevent serious food hazards. Furthermore, our documented quality system is ISO 9001[1] certified by DS Certificering, accredited by DANAK. The quality system includes:

- Production operations are conducted in accordance with adequate sanitation principles.
- HACCP plan. Critical control points (CCPs) are identified and controlled, and the products are released if in compliance with these requirements.
- Critical measuring equipment is identified and calibrated at regular intervals.
- Instructions on cleaning of equipment, utensils and rooms are established and cleaning is documented.
- The personnel is trained in hygienic practices in order to prevent contamination of products and equipment.
- The personnel is trained in the quality system.
- The buildings and equipment are monitored periodically with special reference to maintenance.
- The production of our food enzymes complies with EC regulation 852/2004/EC, including amendments, on *the hygiene of foodstuffs.*
- The packaging materials used for our food enzyme products comply with EC regulation 1935/2004/EC, and related legislation including amendments on materials and articles intended to come into contact with foodstuffs.
- The production is under control of and inspected by the authorities according to EC regulation 882/2004/EC, including amendments, on *the official control of foodstuffs* as interpreted and implemented in Danish legislation.

[1]The scope of the 9001 certificate is: Development, Production and Sales of Biopolymers and Industrial Enzymes.

Novozymes A/S Krogshoejvej 36 2880 Bagsvaerd Denmark
Telephone: + 45 8824 9999
Telefax: +45 4442 1222
Internet: www.novozymes.com
CVR. Number: 10 00 71 27

BUREAU VERITAS
Certification

Certification

Awarded to

Novozymes A/S

Sites as to attached appendix

Bureau Veritas Certification certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the Management System standards detailed below.

STANDARD

ISO 9001:2008

SCOPE OF SUPPLY

Development, production and sales of industrial enzymes.

Original approval date: 25-03-1996

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 25-03-2015

To check the validity of this certificate, please call: (+45) 77 311 000.
Further clarification regarding the scope of this certificate and the applicability of the system requirements may be obtained by consulting the organisation.

Certificate Number: DK003201-2 *Date:* 06-06-2013

MIX
Paper from responsible sources
FSC® C074440

[redacted]

Certification body address: Brandon House, 180 Borough High Street, London SE1 1LB, UK
Certification office: Oldenborggade 1B, DK-7000 Fredericia

UKAS MANAGEMENT SYSTEMS

BUREAU VERITAS
Certification

Certification

Awarded to

Novozymes A/S

Bureau Veritas Certification has issued this appendix to the certificate of approval of the above organisation.

Head office: *Krogshøjvej 36, 2880 Bagsværd, Denmark*

Sites:

Novozymes A/S
Hillerødgade 31 & 42
2200 København N
Denmark

Novozymes A/S
Hallas Allé 1
4400 Kalundborg
Denmark

Novozymes (China) Biotechnology Co. Ltd.
150 Nanhai Road
TEDA
300457 Tianjin
China

Certificate Number: DK003201-2 *Date:* 06-06-2013

[redacted]

BUREAU VERITAS
Certification

Novozymes (China) Investment Co. Ltd.
No. 22 Xinxi Zhong Lu
Shangdi Zone, Haidian District
Beijing 10085
China

Suzhou Hongda Enzyme Co. Ltd.
Sha Xi Town
Taicang City Jiang Su Province
215421 China
China

Novozymes USA
77 Perry Chapel Church Road
Franklinton
North Carolina 27525-0576
USA

Novozymes Nebraska
600 S. 1st Street
NE 68008 Blair
USA

Novozymes Brazil
Rua Professor Francisco Ribeiro, 683
CEP 83707-660, Bairro Barigüi
Araucária - Paraná
Brazil

Novozymes Switzerland
Neumatt
CH-4243 Dittingen
Switzerland

Certificate Number: DK003201-2 *Date:* 06-06-2013

[redacted]

BUREAU VERITAS
Certification

Novozymes South Asia Private Limited
Genisys Building
Plot No. 32, 47-50
EPIP Area Bangalore
560 066 Karnataka
India

Novozymes South Asia Private Limited
Survej No. 193
Hoody Village, Whitefield Road
Bangalore, 560 048
India

Novozymes South Asia Private Limited
20th KM Hosur Road
Electronics City
Bangalore 560 100
India

Sales Region:

Sales Region Headquarter (HQ)
Krogshøjvej 36
2880 Bagsværd
Denmark

Sales Region North America (NA)
Novozymes North America Inc.
77 Perry Chapel Church Road
Franklinton
North Carolina 27525-0576
USA

Certificate Number: DK003201-2 *Date:* 06-06-2013

[redacted]

BUREAU VERITAS
Certification

Sales Region China (CB)
Novozymes China Investment Co Ltd.
No. 14, Xinxi Road, Shangdi Zone
Beijing 100085
China

Sales Regions EEMEA
(Eastern Europe, Middle East and Africa) and CWE
(Central Western Europe)
Novozymes Switzerland AG
Neumattweg 16
4243 Dittingen
Switzerland

Sales Region South East Asia, India and Australia
(SEAIA)
Novozymes Malaysia Sdn. Bhd
Lot 5, Technology Park
Lebuhraya Puchong- Sg Besi
Malaysia Bukit Jalil
Kuala Lumpur 57000
Malaysia

Sales Region Japan & Korea (JK)
Novozymes Japan Ltd.
Makuhari Techno Garden CB-5/3, Nakase, 1-chome, Mihama-ku
Chiba-shi 261-8501
Japan

Sales Region Latin America (LA)
Novozymes Latin America Ltda
Rua Professor Francisco
Ribeiro, 683
Arucária Paraná (PR) 83707-660
Brazil

Certificate Number: DK003201-2 *Date:* 06-06-2013

[redacted]

Appendix 5

Safety documentation

1. Sequence homology of protease from WTY939-8-3 to known toxins and allergen analysis of serine protease from WTY939-8-3.
   Novozymes Report No.: 2014-07603-01

2. Toxicity and Allergen Risk Assessment report. Protease produced by WTY939-8-3.
   Novozymes Report No.:2013-15937.

3. SP387/TL1: Summary of toxicity data
   Novozymes Report No.: 2013-15851.

4. SP 387/TL1, PPF 26813: Test for mutagenic activity with strains of *Salmonella typhimuri*um and *Escherichia coli*.
   Novozymes Study No.: 20078062
   Novozymes Report no.: 2007-46872

5. SP 387/TL1, PPF 26813: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes.
   Covance Study No.: 1974/63.
   Novozymes Reference No.: 20076031.

6. SP 387/TL1, PPF 26813: 3-month Toxicity Study in Rats.
   LAB Research, Scantox Study No.: 65860.
   Novozymes Reference No.: 20076021.

7. SP 387/TL1, PPF 32126: A 25 Day Oral (Gavage) Toxicity Study in Rats.
   LAB Research, Scantox Study No.: 73488.
   Novozymes Reference No.: 20116015.

Sequence homology of Protease from WTY939-8-3 to known toxins
and
Allergen analysis of Protease from WTY939-8-3

Esben Friis
LUNA# 2014-07603-01

May 15, 2014

Contents

1 Sequence homology of Protease from WTY939-8-3 to known toxins

Uniprot database

Protein sequences that contain the word *toxin* in the description field were extracted from UNIPROT (Database date: 15-Jul-2013). This database contains entries from SWISSPROT and TREMBL. 50030 entries were found. Each of the sequences was placed in its uniquely named Fasta file. The Protease from WTY939-8-3 sequence was placed in a separate file "WTY939-8-3.fasta". The awk script in appendix A was used to invoke the sequence alignment program ClustalW 2.0.10 to align each sequence to Protease from WTY939-8-3. A summary file containing the length of each sequence and number of identical residues is also created. From this, the identity percentage to the Protease from WTY939-8-3 sequence or the compared toxin sequence is calculated, whichever is longest. This is chosen because the toxin sequences have many different lengths, both much shorter and much longer than the Protease from WTY939-8-3 sequence. By always using the longest sequence, artificial high scores from very short or very long toxins are avoided. The largest homology encountered was 26.3%, indicating that the homology to any toxin sequence in this databas is indeed random and very low. The results are shown in appendix B.

2 Allergen analysis of Protease from WTY939-8-3

Allergen Databases

The EFSA scientific opinion [1] recommend that searches are done in more than one allergen database, to ensure that as many known allergens as possible are considered. In this case, all available allergen sequences were downloaded from the following databases:

- `http://allergenonline.org`. This is the home page of the The Food Allergy Research and Resource Program (FARRP) allergen protein database. The present report use data downloaded 15-Jul-2013. Appendix D shows a list. A few of the entries were omitted, due to wrong accession codes, unpublished sequences or other errors, see appendix D.1.
- `http://www.allergen.org`. This is the official site for the systematic allergen nomenclature that is approved by the World Health Organization and International Union of Immunological Societies (WHO/IUIS) Allergen Nomenclature Sub-committee. The present report use data downloaded 15-Jul-2013. Appendix E shows a list. A few of the entries were omitted, due to wrong accession codes, unpublished sequences or other errors, see appendix E.1.

Analyses

1. more than 35% identity in the amino acid sequence of the expressed protein (i.e.without the leader sequence, if any), using a window of 80 amino acids and a suitable gap penalty (using Clustal-type alignment programs or equivalent alignment programs). This is one of the recommended test methods of the EFSA scientific opinion [1], and also of the earlier publication from the FAO/WHO Expert group [2]. The queries were done using Fasta 3.4, using the scripts in appendix C
2. same as item 1, but with scaling enabled. In this way, matches with high identity, but over windows shorter than 80 amino acids can be identified. For example a match with 50% identity over 60 amino acids would still have enough identical amino acids to exceed the 35% threshold over 80 amino acids: $60 \cdot 0.50/80 = 0.375 = 37.5\%$.
3. Alignment of Protease from WTY939-8-3 to each of the allergens, and identify hits with more than 35% identity over the full length of the alignment. These queries were performed using the global alignment "needle", which is an implementation of the Needleman-Wunsch global alignment algorithm [3] in the program package EMBOSS [4].

The two first are in compliance with the recommedations in the EFSA scientific opinion [1]. The latter adds some more detailed information for hits identified by the two first methods.

Results

Database: allergenonline.org

35% identity over 80 amino acids

The following allergens had one or more matches using the method described in item 1 above (see appendix F for a complete list).

340	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	25989482	7
341	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	33667930	8
347	Bombus pennsylvanicus	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom p 4 protease	243	75009997	12
655	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	232	1314736	7
656	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	2507248	7
657	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	163638970	9
658	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203816	10
659	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203818	10
660	Dermatophagoides pteronyssinus	House dust mite	Der p 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	261	511476	7
666	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	14424450	7
668	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203826	10
669	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203828	10
1300	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Venom serine protease	277	30909091	7

1547	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 3	285	167540622	11

35% identity over 80 amino acids with scaling

The following allergens had one or more matches using the method described in item 2 above (see appendix F for a complete list).

340	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	25989482	7
341	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	33667930	8
347	Bombus pennsylvanicus	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom p 4 protease	243	75009997	12
655	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	232	1314736	7
656	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	2507248	7
657	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	163638970	9
658	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203816	10
659	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203818	10
660	Dermatophagoides pteronyssinus	House dust mite	Der p 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	261	511476	7
666	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	14424450	7
668	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203826	10
669	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203828	10
1300	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Venom serine protease	277	30909091	7

```
|1547 |Tyrophagus      |Dust mite    |Unassigned|Aero Mite |Tyrophagus Tyr p 3 |285   |167540622|11          |
|     |putrescentiae   |             |          |          |                   |      |         |            |
```

Identity over full length

All allergens with more than 10% sequence identity to Protease from WTY939-8-3 are shown in appendix F.3. The identities to the allergens identified by the 35% identity over 80 amino acids method are shown below.

```
gi_1314736_gb_AAA99805.1__Der_f_3_mite_allergen,_partial_[Dermatophagoides_farin 92/236     =  39.0%
gi_33667930_gb_AAQ24542.1__Blo_t_3_allergen_[Blomia_tropicalis]                  102/267    =  38.2%
gi_25989482_gb_AAM10779.1__trypsin_[Blomia_tropicalis]                           102/268    =  38.1%
gi_2507248_sp_P49275.2_DERF3_DERFA_RecName__Full=Mite_allergen_Der_f_3__AltName_ 93/263     =  35.4%
gi_163638970_gb_ABY28115.1__Der_f_3_allergen_precursor_[Dermatophagoides_farinae 93/263     =  35.4%
gi_218203816_gb_ACK76291.1__Der_f_3_allergen_[Dermatophagoides_farinae]          92/263     =  35.0%
gi_75009997_sp_Q7M4I3.1_SP4_MEGPE_RecName__Full=Venom_protease__AltName__Allerge 87/250     =  34.8%
gi_218203818_gb_ACK76292.1__Der_f_3_allergen_[Dermatophagoides_farinae]          91/263     =  34.6%
gi_511476_gb_AAA19973.1__Der_p_3_allergen_[Dermatophagoides_pteronyssinus]       91/265     =  34.3%
gi_167540622_gb_ABZ81991.1__Tyr_p_3_[Tyrophagus_putrescentiae]                   88/287     =  30.7%
gi_218203828_gb_ACK76297.1__Der_f_6_allergen_[Dermatophagoides_farinae]          83/290     =  28.6%
gi_218203826_gb_ACK76296.1__Der_f_6_allergen_[Dermatophagoides_farinae]          83/290     =  28.6%
gi_14424450_sp_P49276.2_DERF6_DERFA_RecName__Full=Mite_allergen_Der_f_6__AltName 81/290     =  27.9%
gi_30909091_gb_AAP37412.1__venom_serine_protease_precursor_[Polistes_dominulus]  74/288     =  25.7%
```

Database: allergen.org

35% identity over 80 amino acids

The following allergens had one or more matches using the method described in item 1 above (see appendix G for a complete list).

```
Api m 7.0101 Q8MQS8 Apis mellifera (Honey bee)
Blo t 3.0101 Q8I916 Blomia tropicalis (Mite)
Bom p 4.0101 Q7M4I3 Bombus pennsylvanicus (Bumble bee)
Can f 5.0101 P09582 Canis familiaris (dog)
Der f 3.0101 P49275 Dermatophagoides farinae (American house dust mite)
Der f 6.0101 P49276 Dermatophagoides farinae (American house dust mite)
Der p 3.0101 P39675 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0101 Q7Z163 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0102 Q8MWR4 Dermatophagoides pteronyssinus (European house dust mite)
Eur m 3.0101 O97370 Euroglyphus maynei (House dust mite)
Pol d 4.0101 Q7Z269 Polistes dominulus (Mediterranean paper wasp)
Tyr p 3.0101 C6ZDB5 Tyrophagus putrescentiae (Storage mite)
```

35% identity over 80 amino acids with scaling

The following allergens had one or more matches using the method described in item 2 above (see appendix G for a complete list).

```
Api m 7.0101 Q8MQS8 Apis mellifera (Honey bee)
Blo t 3.0101 Q8I916 Blomia tropicalis (Mite)
Bom p 4.0101 Q7M4I3 Bombus pennsylvanicus (Bumble bee)
Can f 5.0101 P09582 Canis familiaris (dog)
Der f 3.0101 P49275 Dermatophagoides farinae (American house dust mite)
Der f 6.0101 P49276 Dermatophagoides farinae (American house dust mite)
Der p 3.0101 P39675 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0101 Q7Z163 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0102 Q8MWR4 Dermatophagoides pteronyssinus (European house dust mite)
Eur m 3.0101 O97370 Euroglyphus maynei (House dust mite)
Pol d 4.0101 Q7Z269 Polistes dominulus (Mediterranean paper wasp)
Tyr p 3.0101 C6ZDB5 Tyrophagus putrescentiae (Storage mite)
```

Identity over full length

All allergens with more than 10% sequence identity to Protease from WTY939-8-3 are shown in appendix G.3. The identities to the allergens identified by the 35% identity over 80 amino acids method are shown below.

Q8I916	102/268	=	38.1%
P49275	93/263	=	35.4%
Q7M4I3	87/250	=	34.8%
O97370	91/262	=	34.7%
P39675	91/265	=	34.3%
Q7Z163	88/280	=	31.4%
C6ZDB5	88/287	=	30.7%
P49276	81/290	=	27.9%
Q8MWR4	80/289	=	27.7%
P09582	72/262	=	27.5%
Q7Z269	74/288	=	25.7%
Q8MQS8	81/411	=	19.7%

Conclusion

For assessment and conclusion, refer to LUNA# 2013-xxxxx-01.

References

[1] Scientific opinion on the assessment of allergenicity of GM plants and microorganisms and derived food and feed. EFSA panel on genetically Modified Organisms (GMO panel). European Food Safety Authority (EFSA), Parma 2010. (The document may be downloaded from `http://www.efsa.europa.eu/en/scdocs/scdoc/1700.htm`)

[2] Evaluation of Allergenicity of Genetically Modified Foods (Report of a Joint FAO/WHO Expert Consultation on Allergenicity of Foods Derived from Biotechnology 22 25 January 2001), Food and Agriculture Organization of the United Nations (FAO), Rome 2001. `http://www.who.int/foodsafety/publications/biotech/ec_jan2001/en/`

[3] Needleman, S. B. and Wunsch, C. D. (1970) *J. Mol. Biol.* **48**, p 443-453.

[4] Rice,P. Longden,I. and Bleasby,A. (2000): "EMBOSS: The European Molecular Biology Open Software Suite" *Trends in Genetics* **16**, No 6. p 276-277

A Scripts for toxin homology search

Awk scripts for alignment of sequences to the Protease from WTY939-8-3 sequence and calculation of sequence lengths and identities. First the script used to run the alignments. The script is stored in a file called "runaligns".

```
#!/bin/tcsh
cat  $1 >tmp.txt
clustalw tmp.txt
grep -v ">" $1 | gawk '{printf "%s",$0} END {printf "\n"}' | wc | \
    gawk '{print $3-1}' > $1.len
cat tmp.aln | gawk '{printf "%s",$0} END {printf "\n"}' | \
    sed 's/[^\*]//g' | wc | gawk '{print $3-1}' > $1.idt
echo $1 | gawk '{printf "%s ",$0}' >> summary
cat $1.len $1.idt | gawk '{printf "%s ",$0} END {printf "\n"}' >>summary
mv tmp.aln $1.out
```

Before start, the file "summary" must be deleted. The analysis is automatically done for all .fasta files in the current directory (and subdirectories, if present) by the command:

```
find .  -name "*.fasta" -exec runaligns {} \;
```

Afterwards the sequence length and identity information can be found in the file summary. This file is processed through the following Python script, which calculates the percentages as described in the text.

```
#!/usr/bin/python

import string,commands



compare_length = 214
data = []


f = open ("summary","r")

buffer = "XX"
i=0

while buffer !="":
  buffer = f.readline()
  if buffer != "":
    data.append(string.split(buffer))
    data[i][1] = int(data[i][1])
    data[i][2] = int(data[i][2])

    i = i+1
f.close()
```

```
for i in range(len(data)):
  fullname = commands.getoutput("grep "+string.upper(data[i][0][2:-6])+" description.txt")
  percentid = 100.0*float(data[i][2])/float(max(data[i][1],compare_length))
  if (percentid >= 10.0):
    printlist =  [data[i][0][2:-6], data[i][1], data[i][2], \
                percentid, \
                fullname[18:83] ]
    print '%-13s %4d %4d %5.1f   %-60s' % tuple(printlist)
```

B Toxin homology results

UNIPROT entries, that contain the word "toxin", but not "fragment" in the description field and their identity to Protease from WTY939-8-3. The columns are

1. sequence database accession number
2. sequence length
3. number of identical residues after alignment to Protease from WTY939-8-3
4. percent identity compared to Protease from WTY939-8-3 or the sequence, whichever is longest.
5. sequence description

Matches $\geq 10\%$ are shown

c6evg4	255	67	26.3	SubName: Full=Kallikrein toxin 1;
b6cju6	259	65	25.1	SubName: Full=Kallikrein toxin Var14;
b6cju5	258	60	23.3	SubName: Full=Kallikrein toxin Var13;
q76b45	282	58	20.6	RecName: Full=Blarina toxin; Short=BLTX; EC=3.4.21.-; Flags:...
a7i2k3	233	44	18.9	SubName: Full=RTX toxins and related Ca2+-binding protein;
q1nip2	167	38	17.8	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7zdf6	157	38	17.8	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9p349	200	38	17.8	SubName: Full=Putative toxin transporter;
b2za52	224	39	17.4	SubName: Full=Toxin-coregulated pilin;
q2rtn6	164	37	17.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3db79	171	37	17.3	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
h1w5z2	260	45	17.3	SubName: Full=Putative Hemolysin-type calcium-binding toxin,...
h0ew22	313	54	17.3	SubName: Full=Putative Killer toxin subunits alpha/beta;
e9uq00	139	37	17.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1nyb9	201	37	17.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c8rzr9	159	37	17.3	SubName: Full=Putative RTX toxin hemolysin-type calcium-bind...
c4u9t1	231	40	17.3	SubName: Full=RTX toxin and Ca2+-binding protein;
b8r8l4	191	37	17.3	SubName: Full=Putative RTX toxin;
b5g7c8	243	42	17.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
a8tv76	195	37	17.3	SubName: Full=RTX toxin activating acyltransferase;
b9kp49	280	48	17.1	SubName: Full=Hemolysin-type calcium-binding toxin;
f0x720	223	38	17.0	SubName: Full=Killer toxin, kp4;
g5nag3	243	41	16.9	SubName: Full=Putative pertussis-like toxin subunit;
r2rtj1	165	36	16.8	SubName: Full=Toxin secretion/phage lysis holin;
m9ebl5	208	36	16.8	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m9a0l6	208	36	16.8	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
l8vcm5	106	36	16.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l8uvb3	106	36	16.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3q4x4	177	36	16.8	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e6y7g2	140	36	16.8	SubName: Full=RGD1 toxin protein;
e3smr3	169	36	16.8	SubName: Full=Putative RTX toxin;
e2caz3	163	36	16.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0mzw7	155	36	16.8	SubName: Full=Fic family toxin-antitoxin system;

e0fdw5	211	36	16.8	SubName: Full=RTX toxin protein;
e0f1f6	211	36	16.8	SubName: Full=RTX toxin protein;
d4xia6	180	36	16.8	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
l7ev28	251	42	16.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kiu8	222	37	16.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
q3sfp8	145	35	16.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q08lx7	182	35	16.4	SubName: Full=Cytolethal distending toxin C;
l1kca2	280	46	16.4	SubName: Full=Hemolysin-type calcium-binding toxin;
k1wl71	250	41	16.4	SubName: Full=Hemolysin-type calcium-binding toxin;
h0a243	156	35	16.4	SubName: Full=Toxin-antitoxin system antitoxin component fam...
g3jaz3	126	35	16.4	SubName: Full=Killer toxin, Kp4/SMK-like, core;
f5lzs5	280	46	16.4	SubName: Full=Hemolysin-type calcium-binding toxin;
f5ljb0	169	35	16.4	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e8x1v8	143	35	16.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2csd4	202	35	16.4	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7q2l6	207	35	16.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3png2	280	46	16.4	SubName: Full=Hemolysin-type calcium-binding toxin;
a0rm02	182	35	16.4	SubName: Full=Cytolethal distending toxin A/C family;
l2tvv0	295	48	16.3	SubName: Full=Putative zeta toxin protein;
q3iyt5	280	45	16.1	SubName: Full=Hemolysin-type calcium-binding toxin;
e1l933	249	40	16.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
d9wcy4	280	45	16.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
q9kwh0	268	43	16.0	SubName: Full=Exfoliative toxin B;
d9w8i1	275	44	16.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
q8vqu0	199	34	15.9	SubName: Full=Pilus protein TcpA; SubName: Full=TcpA; SubNam...
q50717	136	34	15.9	RecName: Full=Probable ribonuclease VapC47; Short=Probable R...
q2ixm3	140	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0drx5	146	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5umz9	187	34	15.9	SubName: Full=Putative toxin co-regulated pilus biosynthesis...
k2me39	264	42	15.9	SubName: Full=Putative Hemolysin-type calcium-binding RTX to...
i6y3f2	136	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xmh4	162	34	15.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i4f1r3	141	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6uj65	277	44	15.9	SubName: Full=Cytolethal distending toxin B;
h6sq79	144	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8nvl8	190	34	15.9	SubName: Full=Zeta toxin family protein;
g4dgh0	134	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2t946	153	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9l6m9	186	34	15.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f7xet9	139	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3mfz4	155	34	15.9	SubName: Full=Toxin secretion/phage lysis holin;
e2wmj8	136	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2swg1	182	34	15.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2nu60	152	34	15.9	SubName: Full=Toxin secretion/phage lysis holin;
d2zcn6	191	34	15.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d0wlr9	179	34	15.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
c7p401	141	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7gi22	162	34	15.9	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c3kqy9	133	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8f3q6	277	44	15.9	SubName: Full=Cytolethal distending toxin protein B;
b1be45	146	34	15.9	SubName: Full=Non-toxin haemagglutinin HA-17;
a6nq11	148	34	15.9	SubName: Full=Toxin secretion/phage lysis holin;
a5u883	136	34	15.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3g6f3	240	38	15.8	SubName: Full=Toxin-coregulated pilus subunit TcpA;
q8z6a4	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit; EC=2.4....
q5pmi6	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
n0bvg7	242	38	15.7	SubName: Full=Toxin subunit;
m4llg9	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;

h7c8g6	249	39	15.7	SubName: Full=Cytolethal distending toxin A;
h1rh48	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0n8n2	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0mr56	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0mfj5	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0m606	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0lv12	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0lhf5	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
h0la32	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9vv39	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
g9vi22	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9uye4	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9usl2	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9ubc4	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9u076	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9ts96	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g9taq8	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g7xaq6	249	39	15.7	SubName: Full=Toxin biosynthesis ketoreductase;
g5rwe7	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g5qk51	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
g5mjj9	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cwz3	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cvg6	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cj52	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cgy6	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
f0ceu3	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8grg3	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
e8gfi3	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
e8gci3	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8fwd5	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
e8fbf6	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
e8f4s7	242	38	15.7	SubName: Full=Pertussis toxin-like subunit ArtA;
e8etv7	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ebi0	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8dit8	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8da22	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8cmq4	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8c873	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8bn42	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ba17	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8b4e3	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ajg7	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8af80	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e8a0b8	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7zlj2	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7zd26	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7yx05	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7yl41	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7y928	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7xzf6	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7xn53	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7x9t2	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7wlp7	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7wb85	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
e7vlx7	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;
b5nit5	242	38	15.7	SubName: Full=Pertussis toxin, subunit 1 subfamily;
b5cj27	242	38	15.7	SubName: Full=Pertussis toxin, subunit 1 subfamily protein;
b5bad3	242	38	15.7	SubName: Full=Putative pertussis-like toxin subunit;

b4ttl5	242	38	15.7	SubName: Full=Pertussis toxin, subunit 1 subfamily;
l8ua25	270	42	15.6	SubName: Full=Cytolethal distending toxin protein B;
h7y8x6	256	40	15.6	SubName: Full=Cytolethal distending toxin subunit A;
e5zcb9	256	40	15.6	SubName: Full=Cytolethal distending toxin subunit A;
d9w8b9	257	40	15.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b7tgw8	225	35	15.6	SubName: Full=Toxin co-regulated pilin;
o06523	283	44	15.5	SubName: Full=Cytolethal distending toxin protein B;
l0xfm6	284	44	15.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
k3ayk4	284	44	15.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
k2zgq1	284	44	15.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
g1ub80	283	44	15.5	SubName: Full=Cytolethal distending toxin protein B;
e7c4p4	264	41	15.5	SubName: Full=RTX toxins and related Ca2+-binding proteins;
d9xz16	277	43	15.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
q92zf7	139	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q92ky5	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nmc2	135	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7b4a3	199	33	15.4	SubName: Full=Toxin-coregulated pilus subunit;
q134x5	140	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0ysr3	133	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
n6vja4	241	37	15.4	SubName: Full=Pertussis toxin-like subunit ArtA;
n4nal8	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n3mk81	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n3kpy2	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n3jn55	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2vfj2	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2vem2	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2v6v6	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2ua91	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2trk9	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2tir6	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2t6p6	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2r4a4	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2q1q9	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2i240	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m9tsp6	200	33	15.4	SubName: Full=Putative toxin to DivIC;
m9ad57	204	33	15.4	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m3a9q1	141	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9mt37	184	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l0eeg1	142	33	15.4	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
k2jbw1	279	43	15.4	SubName: Full=Putative Hemolysin-type calcium-binding RTX to...
k0pkt4	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0vy61	140	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x6k1	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0dl20	210	33	15.4	SubName: Full=Diphtheria toxin repressor;
h1k602	184	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0g400	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7q8b7	137	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dlk8	146	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x1v7	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6e5b6	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bnx0	134	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5yxq9	143	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xw78	132	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xkw8	133	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4vfa9	185	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
f4cv38	140	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3spb6	179	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e9yzw8	241	37	15.4	SubName: Full=Pertussis toxin protein;

e7pub5	138	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7n6f8	144	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component family...
e5cq74	186	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e5auj6	157	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3zpp8	150	33	15.4	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2sx75	169	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7hhl0	169	33	15.4	SubName: Full=Toxin resistance protein;
d3acg8	253	39	15.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d2rzf1	119	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1w677	178	33	15.4	SubName: Full=Toxin secretion/phage lysis holin;
c9lu50	149	33	15.4	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7rlk0	137	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7h0h8	174	33	15.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c4uqv6	279	43	15.4	SubName: Full=RTX toxin and Ca2+-binding protein;
c4tiw8	190	33	15.4	SubName: Full=Cytolethal distending toxin C;
c4tir4	190	33	15.4	SubName: Full=Cytolethal distending toxin C;
c4k379	107	33	15.4	SubName: Full=Addiction module toxin;
b7kc57	135	33	15.4	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0sxs3	188	33	15.4	SubName: Full=RTX toxin-activating protein C;
a4f273	259	40	15.4	SubName: Full=Cytolethal distending toxin A;
a0ys26	253	39	15.4	SubName: Full=Hemolysin-type calcium-binding toxin;
l7eqr9	281	43	15.3	SubName: Full=Beta2-toxin;
h7c8h9	249	38	15.3	SubName: Full=Cytolethal distending toxin A;
g0d2p5	262	40	15.3	SubName: Full=Secreted auto transporter toxin;
e8k8k2	261	40	15.3	SubName: Full=Zeta-toxin;
d0w5c4	235	36	15.3	SubName: Full=Zonula occludens toxin family protein;
a8sej9	242	37	15.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
a4f276	268	41	15.3	SubName: Full=Cytolethal distending toxin A;
r0p9c8	263	40	15.2	SubName: Full=Putative toxin component near Putative ESAT-re...
q9s676	283	43	15.2	SubName: Full=CdtB; SubName: Full=Cytolethal distending toxi...
q7dk12	283	43	15.2	SubName: Full=Cytolethal distending toxin; SubName: Full=Cyt...
o87121	283	43	15.2	SubName: Full=Cytolethal distending toxin B;
l8ugt8	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
l8u170	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
l8tyw2	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
l7fj59	223	34	15.2	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
l1n4q7	283	43	15.2	SubName: Full=Putative cytolethal distending toxin subunit B...
i1xuc6	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
h6uj62	277	42	15.2	SubName: Full=Cytolethal distending toxin B;
h0kfb6	283	43	15.2	SubName: Full=Cytolethal distending toxin subunit CdtB;
g8mrb4	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g4b6l9	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g4aug0	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g4api9	283	43	15.2	SubName: Full=Cytolethal distending toxin B;
g4ajc9	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g4a1r4	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g3zyi6	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
g3zhs9	283	43	15.2	SubName: Full=Cytolethal distending toxin B;
g3zas7	283	43	15.2	SubName: Full=Cytolethal distending toxin B;
d9wcm9	289	44	15.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5l5r6	224	34	15.2	SubName: Full=Toxin co-regulated pilus;
c9r3b8	283	43	15.2	SubName: Full=Cytolethal distending toxin protein B;
q93md0	265	40	15.1	SubName: Full=Beta2-toxin;
m4zmf0	291	44	15.1	SubName: Full=Toxin-like outer membrane protein;
d9xpi7	291	44	15.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xl13	218	33	15.1	SubName: Full=Toxin-antitoxin system, antitoxin component;
c0b4u5	245	37	15.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a1fb35	218	33	15.1	SubName: Full=Toxin coregulated pilin;

r3tjm3	162	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
q9r5v2	190	32	15.0	SubName: Full=CDT=CYTOLETHAL DISTENDING toxin C CDTC product...
q8gn91	199	32	15.0	SubName: Full=Toxin-coregulated pilus subunit;
q5v390	155	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3m7v5	147	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3iuz4	131	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2ii91	159	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q13aq0	135	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0fsh1	175	32	15.0	SubName: Full=RTX toxins and related Ca2+-binding protein;
p0cl62	136	32	15.0	RecName: Full=mRNA interferase MazF7; EC=3.1.-.-; AltName: F...
n0am20	165	32	15.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9umd6	136	32	15.0	SubName: Full=Toxin;
m8ys10	206	32	15.0	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8d5p8	136	32	15.0	SubName: Full=Toxin;
m7rps8	175	32	15.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
m5n8a7	169	32	15.0	SubName: Full=Toxin resistance protein;
m1sjj1	214	32	15.0	SubName: Full=Putative insecticidal toxin complex;
l8vql6	147	32	15.0	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l8v9q4	147	32	15.0	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l8mtw0	124	32	15.0	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
l5kwe1	126	32	15.0	SubName: Full=Multidrug and toxin extrusion protein 2;
l1kmb3	200	32	15.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l0q4g3	169	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ptu4	169	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kce5	136	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
k8mw87	134	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
k7spa7	142	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4s1h9	151	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3hvt8	137	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2vsb7	162	32	15.0	SubName: Full=Putative toxin-antitoxin system toxin componen...
j2r022	152	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2dbk7	129	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0utf5	142	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wp85	138	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9cp41	146	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i5btb5	162	32	15.0	SubName: Full=RTX toxin acyltransferase family protein;
i4iku6	137	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gcz8	134	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fgc6	134	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0s9d7	134	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
h8fwm8	151	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9ys65	166	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
g8atw6	273	41	15.0	SubName: Full=Putative hemolysin-type calcium-binding RTX to...
g7vyw7	148	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
g7km41	198	32	15.0	SubName: Full=Multidrug and toxin extrusion protein;
g5khy4	134	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
g3jay3	124	32	15.0	SubName: Full=Killer toxin, Kp4/SMK-like, core;
g1v904	135	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9xux5	183	32	15.0	SubName: Full=Cytolethal distending toxin A/C family protein...
f6ed23	134	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6byc1	134	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xp53	144	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4v8n1	161	32	15.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f4qql2	140	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3s2m2	140	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3m3d8	169	32	15.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f0gd85	116	32	15.0	SubName: Full=Toxin ChpB;
e6skj5	151	32	15.0	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...

e5rm56	191	32	15.0	SubName: Full=Cytolethal distending toxin C;
e5rm47	191	32	15.0	SubName: Full=Cytolethal distending toxin C;
e5bpi9	154	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
e3sst1	169	32	15.0	SubName: Full=Putative RTX toxin;
e0ibv1	168	32	15.0	SubName: Full=Toxin secretion/phage lysis holin;
e0dfe6	227	34	15.0	SubName: Full=Diphtheria toxin repressor;
d9wqr0	160	32	15.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wa37	193	32	15.0	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d8af20	190	32	15.0	SubName: Full=Cytolethal distending toxin A/C family protein...
d7wab1	139	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5x476	134	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5p580	140	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5d4z6	190	32	15.0	SubName: Full=Cytolethal distending toxin, subunit C;
d4bvk5	234	35	15.0	SubName: Full=RTX toxin transporter;
d4b9e2	191	32	15.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d2eql1	162	32	15.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
c8tah8	193	32	15.0	SubName: Full=Xre family toxin-antitoxin system;
c4xhy6	133	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4tiy3	190	32	15.0	SubName: Full=Cytolethal distending toxin C;
c4tiv0	190	32	15.0	SubName: Full=Cytolethal distending toxin C;
c4tit5	190	32	15.0	SubName: Full=Cytolethal distending toxin C;
b9jxr9	140	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9b2f6	116	32	15.0	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b4wmy1	171	32	15.0	SubName: Full=RTX toxin acyltransferase family;
b1zhj7	139	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1z723	141	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1xyh1	136	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9am31	116	32	15.0	SubName: Full=Growth inhibitor PemK-like protein; SubName: F...
a5lh54	190	32	15.0	SubName: Full=Cytolethal distending toxin C subunit;
a5etr9	140	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4f2c6	182	32	15.0	SubName: Full=Cytolethal distending toxin C;
a1vx33	126	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1vib0	139	32	15.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0rpi8	183	32	15.0	SubName: Full=Cytolethal distending toxin A/C family;
a0a8w7	190	32	15.0	SubName: Full=Cytolethal distending toxin C;
q5hx86	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
q5f1k6	268	40	14.9	SubName: Full=Cytolethal distending toxin A;
q0pc56	268	40	14.9	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
n4xmh8	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
l1l293	289	43	14.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l0k737	336	50	14.9	SubName: Full=Putative membrane protein, putative toxin regu...
k0ht16	261	39	14.9	SubName: Full=Structural toxin;
k0hsd7	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
j7rpt0	268	40	14.9	SubName: Full=Cytolethal distending toxin A;
h8cun5	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8clw2	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8ch32	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8ced1	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8c802	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8c235	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8byi4	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8bq01	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8bpj6	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8bgr8	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8bdn3	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8b730	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8b0v0	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8axd9	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;

h8anx2	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8amf4	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8agv5	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8abu8	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8a4r7	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h8a2p1	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7zxx8	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7zs77	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7zfx5	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7z906	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7z7f0	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7z2m5	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7ynn2	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7yi87	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7yaj3	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7y024	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7xxc6	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7xsi2	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7xn81	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7xgi6	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7x6v0	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
h7wzb8	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
g8fee7	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
g8fah8	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
f1z7n2	336	50	14.9	SubName: Full=Rhizobiocin/RTX toxin and hemolysin-type calci...
e7g270	268	40	14.9	SubName: Full=Cytolethal distending toxin A/C family protein...
e6rzc7	268	40	14.9	SubName: Full=Cytolethal distending toxin;
e6rt82	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
e5zh47	268	40	14.9	SubName: Full=Cytolethal distending toxin A/C family protein...
e4vl66	268	40	14.9	SubName: Full=Cytolethal distending toxin B subunit;
e2znk2	242	36	14.9	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1pnv7	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
e1ciu5	268	40	14.9	SubName: Full=Cytolethal distending toxin A;
d9wdc5	276	41	14.9	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d3fl56	268	40	14.9	SubName: Full=Cytolethal distending toxin A;
b5qhw5	268	40	14.9	SubName: Full=Cytolethal distending toxin;
a8fjn5	268	40	14.9	SubName: Full=Cytolethal distending toxin;
a5khz8	268	40	14.9	SubName: Full=Cytolethal distending toxin;
a4f270	268	40	14.9	SubName: Full=Cytolethal distending toxin A; SubName: Full=C...
a3zks4	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
a3zfk6	268	40	14.9	SubName: Full=Cytolethal distending toxin subunit A;
a3yq18	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
a3ykt7	268	40	14.9	SubName: Full=Cytolethal distending toxin, subunit A;
a1vxg4	268	40	14.9	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
n4v8j0	250	37	14.8	SubName: Full=Toxin biosynthesis;
l0i3w4	236	35	14.8	SubName: Full=T3SS2 effector VopT ADP-ribosyltransferase tox...
j9i5b0	229	34	14.8	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
h0eph4	223	33	14.8	SubName: Full=Putative HC-toxin efflux carrier TOXA;
f9xux9	264	39	14.8	SubName: Full=Cytolethal distending toxin;
e9uxg6	283	42	14.8	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d9wuc3	283	42	14.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5zu85	256	38	14.8	SubName: Full=Hemolysin-type calcium-binding toxin;
b8f3v8	277	41	14.8	SubName: Full=Cytolethal distending toxin protein B;
a0rpj1	264	39	14.8	SubName: Full=Cytolethal distending toxin;
q83u44	265	39	14.7	SubName: Full=Beta2-toxin;
q7bgc8	224	33	14.7	SubName: Full=Toxin co-regulated pilin; SubName: Full=Toxin-...
q60153	224	33	14.7	RecName: Full=Toxin coregulated pilin; AltName: Full=Pilus c...
q4zft6	265	39	14.7	SubName: Full=Beta2 toxin;

q4zft4	265	39	14.7	SubName: Full=Beta2 toxin;
m7mk40	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7mam5	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7lhp8	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7kxe0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7kj48	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7kau9	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7k3l2	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7jn44	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7je05	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7j3r6	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7ir49	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7ini1	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7i2y1	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7hvv8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7hvr7	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7hka7	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7gzg2	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
m7gvj0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m7fp10	224	33	14.7	SubName: Full=Toxin coregulated pilin;
m0pvf3	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
l8tfg3	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8t585	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8snz6	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8s6l8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8rz23	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8rpq7	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8rfa0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8r3m4	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l8quq8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
l7eu87	218	32	14.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
l7dwr3	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
l1khr3	272	40	14.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k5ugs0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k5ug18	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k5sl29	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k5rt76	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2y8n4	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2xbu4	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2wy97	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2wqr1	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2v4z0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
k2ul60	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j2a4m5	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j2a0s9	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1yzl9	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1yvh9	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1xpg6	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1xie4	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1wp01	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1nx19	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1l5s0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1g1v3	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1dgx5	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1ch57	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1cb59	224	33	14.7	SubName: Full=Toxin coregulated pilin;
j1c8j0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
h8jv55	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;

g7tmz4	224	33	14.7	SubName: Full=Toxin co-regulated pilin;
g7c4u9	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7bu96	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7bgk2	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7b5r0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7av67	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7aln6	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7aai8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g7a1b2	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g6zqt0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g6zd81	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g6z4p8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
g5jyy4	224	33	14.7	SubName: Full=Zeta toxin;
f9xw43	266	39	14.7	SubName: Full=Cytolethal distending toxin B;
f9c556	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f9b8r8	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f9a319	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f8zty5	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f8zj38	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f8z7q0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f8yws0	224	33	14.7	SubName: Full=Toxin coregulated pilin;
f2ny50	251	37	14.7	SubName: Full=Zeta toxin family protein;
d7hlb4	224	33	14.7	SubName: Full=Toxin co-regulated pilin;
d0hrr5	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
c6yev5	224	33	14.7	SubName: Full=Toxin coregulated pilin;
c6rw09	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
c3nt70	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
c3lt79	224	33	14.7	SubName: Full=Toxin co-regulated pilin;
c2ja21	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
c2igm5	224	33	14.7	SubName: Full=Toxin co-regulated pilin A;
b7tgw3	224	33	14.7	SubName: Full=Toxin co-regulated pilin;
b2zes0	224	33	14.7	SubName: Full=Toxin coregulated pilus A;
b2za56	224	33	14.7	SubName: Full=Toxin-coregulated pilin;
b2za54	224	33	14.7	SubName: Full=Toxin-coregulated pilin;
b2za53	224	33	14.7	SubName: Full=Toxin-coregulated pilin;
b1bli8	265	39	14.7	SubName: Full=Beta2-toxin;
a4f2e0	266	39	14.7	SubName: Full=Cytolethal distending toxin B;
a4f2c8	266	39	14.7	SubName: Full=Cytolethal distending toxin B;
a3gyr5	224	33	14.7	SubName: Full=Toxin co-regulated pilin; SubName: Full=Toxin ...
a1f0y3	224	33	14.7	SubName: Full=Toxin co-regulated pilin;
a0rm03	266	39	14.7	SubName: Full=Cytolethal distending toxin;
l0r278	226	33	14.6	SubName: Full=Diphtheria toxin repressor;
h8d1b9	268	39	14.6	SubName: Full=Cytolethal distending toxin subunit A;
d9xwd4	281	41	14.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d3lqb7	261	38	14.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
b7tgz8	226	33	14.6	SubName: Full=Toxin co-regulated pilin;
b2za57	226	33	14.6	SubName: Full=Toxin-coregulated pilin;
r4cbj8	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4bm30	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3yeu1	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3th07	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3qkb5	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2xu84	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2wzl3	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2ea00	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2b1e9	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2asm3	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
q9c173	87	31	14.5	SubName: Full=Host-selective toxin protein; SubName: Full=To...

q7bgc3	152	31	14.5	SubName: Full=Toxin-coregulated pilus biosynthesis protein S...
q5p3u6	139	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5dz53	170	31	14.5	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
q56ub9	190	31	14.5	SubName: Full=Cytolethal distending toxin C; SubName: Full=C...
q4hhh8	204	31	14.5	SubName: Full=Toxin-like outer membrane protein, putative;
q13pa1	140	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q00948	124	31	14.5	RecName: Full=Killer toxin; Flags: Precursor;
p29484	152	31	14.5	RecName: Full=Toxin coregulated pilus biosynthesis protein S...
n2rtd6	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n2hv58	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
n0cdf1	255	37	14.5	SubName: Full=Zeta toxin;
m9gzq0	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8vss0	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8nzb7	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8nu96	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8ns94	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8na43	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8mnm1	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8mjd2	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8lwd1	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8l6m9	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m8l3f6	206	31	14.5	SubName: Full=Toxin-coregulated pilus subunit TcpA family pr...
m7m572	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7m1l5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7l1r8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7l1d9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7kvm6	152	31	14.5	SubName: Full=Putative toxin co-regulated pilus biosynthesis...
m7ka33	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7k2i8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7ju32	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7jkt4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7j513	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7iqz8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7iac0	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7hw72	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7htp9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7hhn7	152	31	14.5	SubName: Full=Putative toxin co-regulated pilus biosynthesis...
m7hbl5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7gwp0	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7gln1	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7fxs9	152	31	14.5	SubName: Full=Putative toxin co-regulated pilus biosynthesis...
m7bc33	188	31	14.5	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
m1y540	139	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0pyh6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m0js62	155	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9x145	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8tck3	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8t1i6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8sum4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8sa23	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8rwb5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8rqb4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8rd93	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8r453	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8qsw5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l7dy49	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l2rxg2	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2rw06	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...

l2jjy7	248	36	14.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l1mk13	144	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l0qnd8	142	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dt98	128	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ry45	168	31	14.5	SubName: Full=Putative membrane protein, putative toxin regu...
k5ufs6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5tt67	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5rue9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5rl64	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2xfv6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2wsl7	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2w629	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2vv40	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2v9a0	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2tny0	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2t489	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2sr07	138	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2jnh5	138	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1jhm0	151	31	14.5	SubName: Full=Toxin secretion/phage lysis holin;
k0ppz3	134	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7u205	146	31	14.5	SubName: Full=Toxin secretion/phage lysis holin;
j7k6z2	156	31	14.5	SubName: Full=Toxin-antitoxin system protein;
j3d6k2	164	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2dra4	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1zrr3	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1x0b3	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1w148	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1vsq6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1puj8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1pqt1	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1mfb7	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1ld79	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1fsk0	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1f8c5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1f473	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1drw6	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j1dql9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1cyh4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1c1z2	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1bca9	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0ylj9	256	37	14.5	SubName: Full=Toxin PezT;
j0y8f1	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0qf16	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0nii1	178	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0j1r3	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0ina9	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0i0m5	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0hxc3	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0fdp3	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0f6b2	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0e930	182	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0ck88	180	31	14.5	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0bpg4	161	31	14.5	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i9wxs5	140	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wqq0	221	32	14.5	SubName: Full=Zeta toxin family protein;
i9lqs2	178	31	14.5	SubName: Full=Holin toxin secretion/phage lysis;
i9lhc4	178	31	14.5	SubName: Full=Holin toxin secretion/phage lysis;
i8t6b5	178	31	14.5	SubName: Full=Holin toxin secretion/phage lysis;

i6x767	133	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4z4v3	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gph9	145	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3y8w6	138	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2fge6	241	35	14.5	SubName: Full=Toxic shock syndrome toxin-1;
i0tmf9	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0tgt0	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0iaf1	148	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8jv61	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h7wtz6	190	31	14.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7r3i8	190	31	14.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h6rnt4	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h4f2v8	207	31	14.5	SubName: Full=Zeta toxin family protein;
h4a1z8	203	31	14.5	SubName: Full=Beta-grasp domain toxin protein;
h3wbh4	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3w7j1	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3v201	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3uw72	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3ul07	182	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3rk38	99	31	14.5	SubName: Full=CcdB family toxin protein;
h2cdi4	144	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0i1q9	144	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0da06	203	31	14.5	SubName: Full=Toxin, beta-grasp domain protein;
g9xhl2	156	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
g7tn00	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7lwc8	134	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gzu9	136	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7c4v5	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7bua2	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7bgk8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7b5r6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7av73	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7alp2	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7aaj4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7a1b8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6zqt6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6zd87	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6z4q4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6y2u3	144	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5i840	132	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4did4	139	31	14.5	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g4c5q0	175	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g2ja09	135	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2g336	148	31	14.5	SubName: Full=Toxin secretion/phage lysis holin;
g0ti58	142	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0slw6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g0eh29	135	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zg51	212	31	14.5	SubName: Full=Hemolysin-type calcium-binding toxin;
f9c562	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9b8s4	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9a325	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8ztz1	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8zj44	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8z7q6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8yws6	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f6ete5	150	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5ytq8	134	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xjv9	147	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f4xhn6	166	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4xfn6	248	36	14.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f4xa11	275	40	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4vq11	163	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f3s176	169	31	14.5	SubName: Full=Toxin resistance protein;
f0z3g5	248	36	14.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f0x719	126	31	14.5	SubName: Full=Killer toxin, kp4;
e8tcu0	140	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6tgk6	136	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6l7n9	189	31	14.5	SubName: Full=Cytolethal distending toxin C;
e6a7l1	163	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5sd74	159	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e3kbn7	196	31	14.5	SubName: Full=Ras-like C3 botulinum toxin substrate 1;
e2wis3	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2sq23	136	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2sl20	248	36	14.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e1kw12	256	37	14.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d9wu32	276	40	14.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wqq9	192	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8unl1	168	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8ce76	163	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8byi6	109	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7z2b2	163	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7i720	138	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7hla8	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d6sew7	241	35	14.5	SubName: Full=Toxic shock syndrome toxin-1;
d6kge5	198	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component;
d5ubj4	132	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5p1b7	159	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4b9e1	172	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d3sak7	137	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3l1g4	155	31	14.5	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d3f500	136	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3d9a3	135	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3afe1	169	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1ntf7	132	31	14.5	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0hrq9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c9mtt0	193	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c6yew1	152	31	14.5	SubName: Full=Toxin-coregulated pilus biosynthesis protein S...
c6rw15	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c4tir7	190	31	14.5	SubName: Full=Cytolethal distending toxin C;
c3nt64	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3lt85	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3jr21	289	42	14.5	SubName: Full=Putative zeta toxin protein;
c2ja16	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ign1	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b9jd00	143	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9j9y4	129	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9az67	151	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6gct2	160	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5v3z4	146	31	14.5	SubName: Full=Toxin secretion/phage lysis holin;
b5gie7	199	31	14.5	SubName: Full=PIN family toxin-antitoxin system, toxin compo...
b3prc0	152	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1m1v4	133	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1i6e7	152	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0g1d2	152	31	14.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a9kkl4	160	31	14.5	SubName: Full=Toxin secretion/phage lysis holin;
a9apf1	151	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a8zkt9	176	31	14.5	SubName: Full=RTX toxin activating protein;
a7hqv1	136	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7b6l7	189	31	14.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
a6x8c1	127	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3tnu9	140	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3gys1	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gmd7	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1f0y9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1eib9	152	31	14.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1aza1	133	31	14.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ab04	190	31	14.5	SubName: Full=Cytolethal distending toxin type IV subunit C;...
r0sfx9	271	39	14.4	SubName: Full=Pre-toxin domain with VENN motif family protei...
m0q3b2	250	36	14.4	SubName: Full=RTX toxin transporter, ATP-binding protein;
i7gyv8	278	40	14.4	SubName: Full=Cytolethal distending toxin subunit B;
i2fc55	278	40	14.4	SubName: Full=Cytolethal distending toxin subunit B;
h9cjf6	243	35	14.4	SubName: Full=Toxin co-regulated pilin A;
f9rba9	236	34	14.4	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
d0hjy5	215	31	14.4	SubName: Full=RTX toxin transporter;
c9d7r3	243	35	14.4	SubName: Full=Astacin-like metalloprotease toxin 3; Flags: P...
r2rs92	224	32	14.3	SubName: Full=Zeta toxin;
q8nju1	238	34	14.3	SubName: Full=Killer toxin zygocin;
q8gnj7	273	39	14.3	SubName: Full=Exfoliative toxin ExhA;
q4zft7	265	38	14.3	SubName: Full=Beta2 toxin;
q04868	273	39	14.3	RecName: Full=Elongator complex protein 6; AltName: Full=Gam...
m3jji3	252	36	14.3	SubName: Full=Zeta toxin;
l7far6	280	40	14.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j5br25	265	38	14.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j5bjz7	259	37	14.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i3rtf5	273	39	14.3	SubName: Full=Exfoliative toxin ExhA;
i3rtf3	273	39	14.3	SubName: Full=Exfoliative toxin ExhA;
h5hj80	272	39	14.3	SubName: Full=Toxin B domain protein;
e7abp0	238	34	14.3	SubName: Full=Fic family protein,Toxin-antitoxin system;
d5l5r5	224	32	14.3	SubName: Full=Toxin co-regulated pilus;
c9nua0	223	32	14.3	SubName: Full=Cholera toxin transcriptional activator;
b8k890	287	41	14.3	SubName: Full=Leukocidin/Hemolysin toxin family;
b7tgz3	224	32	14.3	SubName: Full=Toxin co-regulated pilin;
a4f274	265	38	14.3	SubName: Full=Cytolethal distending toxin B;
a1eic5	224	32	14.3	SubName: Full=Toxin co-regulated pilin;
r0n9s4	253	36	14.2	SubName: Full=Zeta toxin;
p0djl7	226	32	14.2	RecName: Full=Diphtheria toxin repressor; AltName: Full=Iron...
m2sxp3	323	46	14.2	SubName: Full=Leukocidin/Hemolysin toxin family;
m1rp55	226	32	14.2	SubName: Full=Putative insecticidal toxin complex;
l1qwy1	247	35	14.2	SubName: Full=Toxin co-regulated pilin A;
l1l0l5	218	31	14.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l0r224	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
k9gj79	247	35	14.2	SubName: Full=MFS toxin efflux pump (AflT), putative;
k9fp20	247	35	14.2	SubName: Full=MFS toxin efflux pump (AflT), putative;
j3fv33	302	43	14.2	SubName: Full=Zeta toxin;
i4jum8	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h8xbm9	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h8xbm8	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2i5g8	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2i233	226	32	14.2	RecName: Full=Diphtheria toxin repressor; AltName: Full=Iron...
h2hu09	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2hlx9	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2hex0	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2h7z7	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2h108	226	32	14.2	SubName: Full=Diphtheria toxin repressor;

h2gud3	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2gs97	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2ghu3	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2gbz2	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
h2g4i9	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
g2b407	246	35	14.2	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
f9rba0	219	31	14.2	SubName: Full=Toxin coregulated pilin subunit TcpA;
f9jmz8	254	36	14.2	SubName: Full=Toxin, beta-grasp domain protein;
e4tx22	247	35	14.2	SubName: Full=RTX toxins and related Ca2+-binding protein; F...
e2g058	226	32	14.2	SubName: Full=Diphtheria toxin repressor; SubName: Full=Dipt...
e1mgg9	226	32	14.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e1lpb9	253	36	14.2	SubName: Full=Zeta toxin family protein;
d0yrw8	226	32	14.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
b5ty44	226	32	14.2	SubName: Full=Diphtheria toxin repressor;
a3pup7	219	31	14.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3elq5	247	35	14.2	SubName: Full=Toxin secretion transporter, putative;
q9zab7	283	40	14.1	SubName: Full=Cytolethal distending toxin protein B;
p17260	313	44	14.1	RecName: Full=Protein KRE1; AltName: Full=Killer toxin-resis...
n9va90	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
m7wdy4	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
m3unt1	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
m2rz16	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
l7f8a9	283	40	14.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k2h2f8	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
j7q5l6	256	36	14.1	SubName: Full=Putative zeta-toxin/signal recognition particl...
h4hfd0	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4en49	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4ds02	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4d9h1	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4bpq7	241	34	14.1	SubName: Full=Toxin beta-grasp domain protein;
h4b859	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4b100	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4atj3	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4akf0	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
h4ac76	241	34	14.1	SubName: Full=Beta-grasp domain toxin protein;
g6bpp7	256	36	14.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f8vfw2	248	35	14.1	SubName: Full=Putative pertussis toxin s1 subunit;
e5ray4	241	34	14.1	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e3cfi1	255	36	14.1	SubName: Full=Zeta toxin;
e1lbn6	256	36	14.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d6kle4	256	36	14.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d6k110	283	40	14.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d3ank0	248	35	14.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
c8mih6	241	34	14.1	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lkp9	241	34	14.1	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l4c4	241	34	14.1	SubName: Full=Toxin;
c4ltp3	276	39	14.1	SubName: Full=Toxin resistance protein, putative;
a6zsf9	313	44	14.1	SubName: Full=Killer toxin resistant protein;
a6u0y7	241	34	14.1	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a5is53	241	34	14.1	SubName: Full=Toxin, beta-grasp domain protein; Flags: Precu...
q9f280	186	30	14.0	SubName: Full=Cytolethal distending toxin C;
q6n7j4	142	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5iqz5	258	36	14.0	SubName: Full=Cytolethal distending toxin A;
q5dz51	208	30	14.0	SubName: Full=Toxin coregulated pilin subunit TcpA;
q4zqx2	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q4kip6	161	30	14.0	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
q2s623	147	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2ncl4	121	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q2itn7	133	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q219n0	132	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1yee7	140	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1vce5	169	30	14.0	SubName: Full=Toxin resistance protein;
q1qf45	128	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nm82	130	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1mkx0	152	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1inb3	129	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0i5q0	131	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q01us4	142	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p55132	172	30	14.0	RecName: Full=RTX-I toxin-activating lysine-acyltransferase ...
p55124	165	30	14.0	RecName: Full=Leukotoxin-activating lysine-acyltransferase L...
p18998	138	30	14.0	RecName: Full=Phospholipase A2 mojave toxin acidic chain; Sh...
o58440	161	30	14.0	RecName: Full=Endoribonuclease Nob1; Short=RNase Nob1; EC=3....
o05902	144	30	14.0	RecName: Full=Toxin Rv0910/MT0934;
n6zsu8	174	30	14.0	SubName: Full=Zeta toxin family protein;
m8xef3	207	30	14.0	SubName: Full=Toxin coregulated pilin;
m8cy31	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
m6ynb4	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m6r4n4	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m6qlx3	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m6l7e1	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m6kxp1	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m5xzi8	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m5dgy7	133	30	14.0	SubName: Full=Programmed cell death toxin MazF like;
m4u8g5	271	38	14.0	SubName: Full=Cholera toxin transcriptional activator-like p...
m2z9b1	131	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0j554	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0evp1	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xk97	144	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9vm10	127	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8vs95	188	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l8v503	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8v086	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8uzv0	188	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l8nqy2	145	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8kq65	152	30	14.0	SubName: Full=Toxin with endonuclease activity YhaV;
l8j6i8	210	30	14.0	SubName: Full=Cholera toxin transcriptional activator;
l7gk63	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7gb84	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1qfz9	222	31	14.0	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
l1n356	145	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l1l4i5	203	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l0ih58	130	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ifr0	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dy11	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dtn1	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zeb8	135	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9uaq7	143	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8llc9	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k8ja97	205	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k8ek70	243	34	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k7s0d8	278	39	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5dqp0	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5bj34	145	30	14.0	SubName: Full=Toxin;
k4thx6	152	30	14.0	SubName: Full=Pertussis toxin subunit 4;
k2qyf4	165	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2nqd8	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

k0gez9	172	30	14.0	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
j8ihm2	141	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
j8i168	162	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
j7qui2	168	30	14.0	SubName: Full=Putative antidote epsilon protein, zeta toxin ...
j5bcr7	151	30	14.0	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
j4w499	176	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4qqr0	151	30	14.0	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
j3uu66	146	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
j2veq1	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0z365	153	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0wes4	143	30	14.0	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0nks9	153	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0gwv2	143	30	14.0	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i9nma1	178	30	14.0	SubName: Full=Holin toxin secretion/phage lysis;
i9fxv2	147	30	14.0	SubName: Full=Toxin;
i8zls9	147	30	14.0	SubName: Full=Toxin;
i8zkt9	147	30	14.0	SubName: Full=Toxin;
i8yim3	147	30	14.0	SubName: Full=Toxin;
i8ya87	147	30	14.0	SubName: Full=Toxin;
i8xj86	147	30	14.0	SubName: Full=Toxin;
i8wyz3	147	30	14.0	SubName: Full=Toxin;
i8u920	147	30	14.0	SubName: Full=Toxin;
i8u8h9	147	30	14.0	SubName: Full=Toxin;
i8t9r4	129	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8t3n0	142	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8rjy6	147	30	14.0	SubName: Full=Toxin;
i8qrz3	135	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8qk69	147	30	14.0	SubName: Full=Toxin;
i8qfx1	147	30	14.0	SubName: Full=Toxin;
i8lqf8	147	30	14.0	SubName: Full=Toxin;
i8icd0	147	30	14.0	SubName: Full=Toxin;
i8htm8	147	30	14.0	SubName: Full=Toxin;
i8hs42	147	30	14.0	SubName: Full=Toxin;
i8en53	147	30	14.0	SubName: Full=Toxin;
i8cbn1	147	30	14.0	SubName: Full=Toxin;
i7lj50	130	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6yzt3	147	30	14.0	SubName: Full=Toxin;
i6asq7	141	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x6f6	148	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3tx11	144	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2z7x6	169	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2yvw0	169	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2x011	172	30	14.0	SubName: Full=Zeta toxin;
i1b0t6	135	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9zve9	131	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9zuh8	137	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z488	142	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eni8	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
h8edt9	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
h8e091	162	30	14.0	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
h7ees5	182	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
h7cel3	109	30	14.0	SubName: Full=Toxin-like peptide;
h6uj63	176	30	14.0	SubName: Full=Cytolethal distending toxin C;
h6rwj1	194	30	14.0	SubName: Full=Putative secreted Ca2+-binding toxin;
h6lis7	144	30	14.0	SubName: Full=Putative phage-like toxin secretion/phage lysi...
h6cfh5	148	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
h5x2t9	128	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h4g0y3	203	30	14.0	SubName: Full=Toxin, beta-grasp domain protein;

h4f4a0	167	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h3z880	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3wrn0	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3wkv3	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3vwf9	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3vpl9	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3vg34	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3ufb7	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3smg4	132	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
h3keu5	144	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1ka41	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1iu87	141	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0i6s3	147	30	14.0	SubName: Full=Toxin; SubName: Full=Uncharacterized protein;
h0dxn8	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h0dqk6	182	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h0cp53	203	30	14.0	SubName: Full=Toxin, beta-grasp domain protein;
h0bwv1	144	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0a914	203	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h0a553	169	30	14.0	SubName: Full=Toxin-antitoxin system antitoxin component fam...
g9xqb5	149	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9rpt0	140	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
g9mbc3	131	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8p1y5	141	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8ne40	127	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8mrb3	222	31	14.0	SubName: Full=Cytolethal distending toxin protein A;
g8m015	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
g7z271	155	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4iw56	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4di40	133	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9sxz9	164	30	14.0	SubName: Full=Toxin resistance protein;
f9k9l4	203	30	14.0	SubName: Full=Toxin, beta-grasp domain protein;
f8b520	135	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7y1a7	151	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7u932	127	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pq63	138	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7mmu5	162	30	14.0	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f6dj76	137	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dj19	131	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5lk48	257	36	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4txj0	177	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f3zzt3	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
f3s1a1	157	30	14.0	SubName: Full=Toxin resistance protein;
f3q2g6	178	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3mg77	150	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
f3jl19	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3eup8	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3da51	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2uyi0	156	30	14.0	SubName: Full=Toxin-antitoxin system toxin component;
f2uy37	133	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1ld11	195	30	14.0	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
f0g153	151	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9uuu2	271	38	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9utm4	184	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9dt94	163	30	14.0	SubName: Full=Structural toxin protein RtxA;
e6up41	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
e6lkc2	142	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
e6ksu5	172	30	14.0	SubName: Full=GNAT family toxin-antitoxin system;
e6arb5	177	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

e5ugg3	192	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5rm65	264	37	14.0	SubName: Full=Cytolethal distending toxin A;
e5rm60	264	37	14.0	SubName: Full=Cytolethal distending toxin A;
e5bfc9	154	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
e5ar98	157	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3inu4	162	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
e2s5a7	148	30	14.0	SubName: Full=MerR family toxin-antitoxin system;
e2cst7	158	30	14.0	SubName: Full=Putative RTX-I toxin-activating lysine-acyltra...
e2cp83	126	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e1vqq0	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0mu14	171	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8usg8	144	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8f8l7	199	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d7i239	150	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ber2	143	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ba44	148	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6xzg0	147	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
d6kau3	115	30	14.0	SubName: Full=Toxin-antitoxin system, toxin component;
d6bap3	201	30	14.0	SubName: Full=Predicted protein; SubName: Full=Toxin-antitox...
d5vg46	165	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5qwg2	153	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5qql5	189	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5nuw7	193	30	14.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4lfn4	147	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
d4cpn9	166	30	14.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3v916	135	30	14.0	SubName: Full=JHE-like toxin, ''Photorhabdus insecticidal re...
d2yk21	201	30	14.0	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
d2bb41	146	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bar2	142	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0m1j7	169	30	14.0	SubName: Full=Toxin resistance protein;
c9r815	129	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8c4l0	172	30	14.0	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
c7nyx4	135	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7hj90	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
c6wam3	137	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5ut74	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
c5uq70	137	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
c4tiq8	181	30	14.0	SubName: Full=Cytolethal distending toxin C;
c0qck4	130	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9c0y6	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9bgy2	139	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8f3v7	176	30	14.0	SubName: Full=Cytolethal distending toxin protein C;
b7lg96	160	30	14.0	SubName: Full=Toxin of the YeeV-YeeU toxin-antitoxin system;...
b7j4m1	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6vb99	192	30	14.0	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
b5zn19	140	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3r619	127	30	14.0	SubName: Full=Putative toxin-antitoxin system, putative anti...
b3qam3	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1gb31	140	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0t884	122	30	14.0	SubName: Full=RelE-like cytotoxic translational repressor of...
b0rir0	229	32	14.0	SubName: Full=Putative acetyltransferase protein (Toxin resi...
a8ydn6	145	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8g7s1	126	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6w4v5	134	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5gbx6	141	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5g780	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3n293	172	30	14.0	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
a3dg46	136	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;

a3dfv7	139	30	14.0	SubName: Full=Toxin secretion/phage lysis holin;
a1upi5	136	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1s094	154	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0lt39	197	30	14.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8jin2	323	45	13.9	SubName: Full=Leukocidin/Hemolysin toxin family protein;
l7fe61	223	31	13.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l7eyj3	273	38	13.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
h8hdq3	352	49	13.9	SubName: Full=Putative toxin regulator;
h8ha28	352	49	13.9	SubName: Full=Putative toxin regulator;
h4h614	238	33	13.9	SubName: Full=Beta-grasp domain toxin protein;
h4evy3	238	33	13.9	SubName: Full=Beta-grasp domain toxin protein;
h1qz16	237	33	13.9	SubName: Full=Zeta toxin family protein;
h0ewc2	231	32	13.9	SubName: Full=Putative HC-toxin efflux carrier TOXA;
g7zcp8	273	38	13.9	SubName: Full=Putative Hemolysin-type calcium-binding RTX to...
g5bj91	266	37	13.9	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
f9ks20	238	33	13.9	SubName: Full=Toxin, beta-grasp domain protein;
f8bf54	338	47	13.9	SubName: Full=Predicted membrane protein putative toxin regu...
e9f3k7	244	34	13.9	SubName: Full=Toxin cluster protein 2;
d4u5d8	309	43	13.9	SubName: Full=Leukocidin/hemolysin toxin family protein;
c9sp65	294	41	13.9	SubName: Full=Zeta toxin family protein;
c4tiw0	237	33	13.9	SubName: Full=Cytolethal distending toxin A;
r4e591	224	31	13.8	SubName: Full=Zeta toxin;
r4b3q2	224	31	13.8	SubName: Full=Zeta toxin;
r3z3s6	224	31	13.8	SubName: Full=Zeta toxin;
r3gsr9	224	31	13.8	SubName: Full=Zeta toxin;
r2za75	224	31	13.8	SubName: Full=Zeta toxin;
r2yvi3	224	31	13.8	SubName: Full=Zeta toxin;
r2yl12	224	31	13.8	SubName: Full=Zeta toxin;
r2yf99	224	31	13.8	SubName: Full=Zeta toxin;
r2ydm6	224	31	13.8	SubName: Full=Zeta toxin;
r2xsv4	224	31	13.8	SubName: Full=Zeta toxin;
r2xnv8	224	31	13.8	SubName: Full=Zeta toxin;
r2x182	224	31	13.8	SubName: Full=Zeta toxin;
r2p5q7	224	31	13.8	SubName: Full=Zeta toxin;
r2dby9	224	31	13.8	SubName: Full=Zeta toxin;
r2bft4	224	31	13.8	SubName: Full=Zeta toxin;
r2bfp2	224	31	13.8	SubName: Full=Zeta toxin;
r1g6c6	247	34	13.8	SubName: Full=Putative toxin biosynthesis protein;
q93tt5	224	31	13.8	SubName: Full=Toxin-coregulated pilin;
p52961	327	45	13.8	RecName: Full=GPI-linked NAD(P)(+)--arginine ADP-ribosyltran...
p23024	224	31	13.8	RecName: Full=Toxin coregulated pilin; AltName: Full=Pilus c...
m7ggh0	224	31	13.8	SubName: Full=Toxin-coregulated pilin;
l8p932	282	39	13.8	SubName: Full=Putative Xre family toxin-antitoxin system, an...
l2s429	224	31	13.8	SubName: Full=Zeta toxin;
l2ru04	224	31	13.8	SubName: Full=Zeta toxin;
l2q421	224	31	13.8	SubName: Full=Zeta toxin;
l2jyj3	224	31	13.8	SubName: Full=Zeta toxin;
l1kql3	283	39	13.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1klf1	312	43	13.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k7a6q3	407	56	13.8	SubName: Full=RTX toxin, putative;
k6yn68	239	33	13.8	SubName: Full=Zeta toxin;
k4rak2	275	38	13.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
j7cj95	224	31	13.8	SubName: Full=Zeta toxin;
j7civ5	224	31	13.8	SubName: Full=Zeta toxin;
j7btt9	224	31	13.8	SubName: Full=Zeta toxin;
j6zv26	224	31	13.8	SubName: Full=Zeta toxin;
j6zgn6	224	31	13.8	SubName: Full=Zeta toxin;
j6ydk7	224	31	13.8	SubName: Full=Zeta toxin;

j6ydb6	224	31	13.8	SubName: Full=Zeta toxin;
j6y167	224	31	13.8	SubName: Full=Zeta toxin;
j6xvz3	224	31	13.8	SubName: Full=Zeta toxin;
j6xbr5	224	31	13.8	SubName: Full=Zeta toxin;
j6wz21	224	31	13.8	SubName: Full=Zeta toxin;
j6vi68	224	31	13.8	SubName: Full=Zeta toxin;
j6qrv6	224	31	13.8	SubName: Full=Zeta toxin;
j6mq84	224	31	13.8	SubName: Full=Zeta toxin;
h8nya8	232	32	13.8	SubName: Full=Toxin-coregulated pilus subunit TcpA;
h8lbr4	224	31	13.8	SubName: Full=Zeta toxin;
h5ewt5	246	34	13.8	SubName: Full=Toxin B domain protein;
g2c311	240	33	13.8	SubName: Full=Pertussis toxin, subunit 1 family protein;
f9hgn2	261	36	13.8	SubName: Full=Zeta toxin;
f3pb26	217	30	13.8	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f0svc4	218	30	13.8	SubName: Full=Addiction module toxin, RelE/StbE family;
e8xvt8	232	32	13.8	SubName: Full=Toxin-coregulated pilus subunit TcpA;
e7p9q2	282	39	13.8	SubName: Full=Insecticidal toxin protein, putative;
e4jl02	224	31	13.8	SubName: Full=Zeta toxin;
e4j7d8	224	31	13.8	SubName: Full=Zeta toxin;
e4j2y6	224	31	13.8	SubName: Full=Zeta toxin;
e4iik3	224	31	13.8	SubName: Full=Zeta toxin;
e4id58	224	31	13.8	SubName: Full=Zeta toxin;
e2z8p3	224	31	13.8	SubName: Full=Zeta toxin;
d9wm77	282	39	13.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d4r591	224	31	13.8	SubName: Full=Zeta toxin family protein;
d4m327	347	48	13.8	SubName: Full=Predicted membrane protein, putative toxin reg...
d0h652	224	31	13.8	SubName: Full=Toxin co-regulated pilin A;
c9m9d2	247	34	13.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9lu74	247	34	13.8	SubName: Full=Prophage antirepressor; SubName: Full=Toxin-an...
b7tgy8	224	31	13.8	SubName: Full=Toxin co-regulated pilin;
b7tgx8	224	31	13.8	SubName: Full=Toxin co-regulated pilin;
b5gez4	283	39	13.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b2za49	224	31	13.8	SubName: Full=Toxin-coregulated pilin;
a5f392	224	31	13.8	SubName: Full=Toxin co-regulated pilin;
a0yr49	260	36	13.8	SubName: Full=Hemolysin-type calcium-binding toxin;
r2wj74	248	34	13.7	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2wcs8	248	34	13.7	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
q3lzq8	329	45	13.7	SubName: Full=Cytolethal distending toxin subunit B;
q3db06	219	30	13.7	SubName: Full=Exfoliative toxin A;
q08lx8	284	39	13.7	SubName: Full=Cytolethal distending toxin B;
p16948	219	30	13.7	RecName: Full=KP6 killer toxin; AltName: Full=Killer protein...
m4mua7	219	30	13.7	SubName: Full=RTX toxins and related Ca2+-binding proteins;
l7fc88	284	39	13.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7f8x2	291	40	13.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7er23	284	39	13.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l2nut8	248	34	13.7	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l1kl02	285	39	13.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
h4h0n3	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4gq10	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4edm1	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4e6m6	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4dz24	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4di88	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4d386	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4cuq5	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4cl70	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4ccq9	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h4c655	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;

h4bg88	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h3s693	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
h3rx39	241	33	13.7	SubName: Full=Beta-grasp domain toxin protein;
f9rxk2	219	30	13.7	SubName: Full=Toxin coregulated pilin subunit TcpA;
f9p308	255	35	13.7	SubName: Full=Zeta toxin;
e7s5b6	255	35	13.7	SubName: Full=Zeta-toxin;
d9wcw2	291	40	13.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4bnz7	249	34	13.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c6h6c7	263	36	13.7	SubName: Full=Killer toxin sensitivity protein;
c4k6t7	329	45	13.7	SubName: Full=APSE-2 prophage cytolethal distending toxin su...
c0wrv9	328	45	13.7	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
b9mdv3	233	32	13.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4usb4	307	42	13.7	RecName: Full=Sphingomyelin phosphodiesterase D LiSicTox-alp...
a1w430	233	32	13.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4avd8	202	29	13.6	SubName: Full=Zeta-toxin;
r3zii2	202	29	13.6	SubName: Full=Zeta-toxin;
r3uww2	202	29	13.6	SubName: Full=Zeta-toxin;
r3p394	202	29	13.6	SubName: Full=Zeta-toxin;
r0bai2	163	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
q930f9	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8vjp0	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8e865	175	29	13.6	SubName: Full=Toxin-antitoxin system toxin GNAT family;
q7tz16	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7twq9	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nk03	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7d7i7	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7d6y1	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7bs44	177	29	13.6	SubName: Full=Toxin subunit Set1A;
q745x2	132	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6lvj0	189	29	13.6	SubName: Full=Hypothetical toxin secretion, membrane fusionp...
q5sjf6	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5m8j2	192	29	13.6	SubName: Full=Novel protein similar to ras-related C3 botuli...
q5iqz8	258	35	13.6	SubName: Full=Cytolethal distending toxin A;
q5iqz3	258	35	13.6	SubName: Full=Cytolethal distending toxin A;
q53vu6	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q4hrt9	189	29	13.6	SubName: Full=Cytolethal distending toxin C;
q46670	181	29	13.6	RecName: Full=Cytolethal distending toxin subunit C; Short=C...
q3asu9	113	29	13.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q32i94	155	29	13.6	SubName: Full=Putative toxin;
q2k0t7	148	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nse0	146	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nl78	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1b5f5	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q136u1	132	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0ba08	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p13976	133	29	13.6	RecName: Full=mRNA interferase PemK; EC=3.1.-.-; AltName: Fu...
p09331	280	38	13.6	RecName: Full=Exfoliative toxin A; EC=3.4.21.-; AltName: Ful...
o53501	144	29	13.6	RecName: Full=Probable ribonuclease VapC37; Short=Probable R...
o53372	142	29	13.6	RecName: Full=Probable ribonuclease VapC44; Short=Probable R...
n2r7r1	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2hmg5	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n1lr42	273	37	13.6	SubName: Full=Putative toxin component near putative ESAT-re...
n1ljk0	141	29	13.6	SubName: Full=Holin, toxin secretion/phage lysis;
n0d0e0	72	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component;
m9uvm2	139	29	13.6	SubName: Full=Putative toxin VapC16;
m9hzc9	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9dd32	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8zmx3	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...

m8uq94	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8pdg9	119	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8pbg0	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8nk33	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8mu55	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8mg42	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8ls96	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8lp59	131	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8kzz5	137	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8clj4	139	29	13.6	SubName: Full=Putative toxin VapC16;
m7vf78	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7vf41	151	29	13.6	SubName: Full=General secretion pathway protein G (Cholera t...
m7v428	151	29	13.6	SubName: Full=General secretion pathway protein G (Cholera t...
m7udx8	124	29	13.6	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7rmz4	152	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
m6luh9	170	29	13.6	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
m5nzy2	206	29	13.6	SubName: Full=Toxin;
m5nul8	206	29	13.6	SubName: Full=Toxin;
m3up55	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1wju7	173	29	13.6	SubName: Full=Putative RTX toxin-activating lysine-acyltrans...
m1il92	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ik75	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mq64	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mn47	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0leb2	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ixi8	164	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0igr9	128	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0eah8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0cy46	127	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0aaq1	155	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xke4	143	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9wqj8	128	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8nez1	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8ln95	145	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
l8j2i6	153	29	13.6	SubName: Full=RTX toxin activating lysine-acyltransferase;
l8dmu8	128	29	13.6	SubName: Full=HicB family toxin-antitoxin system;
l7fbc2	287	39	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7ecj5	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7ec49	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1qk25	136	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
l1q9h1	140	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1pgy3	172	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l0rl06	157	29	13.6	SubName: Full=Putative ABC associated RTX toxin transporter,...
l0r0t4	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qvg3	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qk55	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qjv1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qfh7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qbm5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qb70	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pzj0	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pz20	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nyp4	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nvw0	163	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nv27	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0mgk3	146	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ihx9	149	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0i9z1	146	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0a7s5	130	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9x203	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9gnk0	149	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ele3	131	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8f5q0	202	29	13.6	SubName: Full=Zeta toxin;
k7w404	123	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7siy4	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6xb62	131	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wti3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6vdf9	136	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5c1i6	127	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4zc93	141	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k4qt12	192	29	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
k2t1z4	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2lm30	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0vne9	152	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0k1a1	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0ehs7	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0bfk1	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
k0arp0	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
j9ztz1	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
j9b8p6	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8yu24	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8xzb4	162	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8sdk4	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8q8n7	139	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8pux6	162	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j8l4v9	171	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j7wpt8	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j7w0n0	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j7u798	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j7qj07	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7k509	98	29	13.6	SubName: Full=Toxin-antitoxin system protein;
j6ui09	93	29	13.6	SubName: Full=HigB toxin protein;
j6rk29	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6rbc6	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6q2i4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6pyj4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6plc3	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6pjb9	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6nsx3	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6nk31	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6lnx8	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6i5j9	161	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j6ecx5	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6e930	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6e4f8	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6bct2	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5yvs7	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5xh42	148	29	13.6	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
j5wzm8	201	29	13.6	SubName: Full=Zeta toxin;
j5w2t9	154	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j5g5s5	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5e5h0	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5c7v0	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j4jke5	192	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
j3v871	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
j3ury2	141	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;

j3fks5	243	33	13.6	SubName: Full=Zeta toxin;
j3b2c7	96	29	13.6	SubName: Full=Addiction module toxin, RelE/StbE family;
j3alw7	186	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2lvu3	186	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0wfj3	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0vcq1	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0s3f0	153	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0np40	121	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
j0hh46	346	47	13.6	SubName: Full=Killer toxin sensitivity protein;
j0bs80	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0bce5	143	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i9n5m1	152	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9i9l1	147	29	13.6	SubName: Full=Toxin;
i9gz36	147	29	13.6	SubName: Full=Toxin;
i9euq2	147	29	13.6	SubName: Full=Toxin;
i9dn47	147	29	13.6	SubName: Full=Toxin;
i9b285	147	29	13.6	SubName: Full=Toxin;
i9a7v4	147	29	13.6	SubName: Full=Toxin;
i8z066	147	29	13.6	SubName: Full=Toxin;
i8xyj7	147	29	13.6	SubName: Full=Toxin;
i8ssp8	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8qj26	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8qik8	147	29	13.6	SubName: Full=Toxin;
i8n0b7	147	29	13.6	SubName: Full=Toxin;
i8mcc0	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8m1p3	147	29	13.6	SubName: Full=Toxin;
i8lqn6	147	29	13.6	SubName: Full=Toxin;
i8l6f1	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8l0t6	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8l0h9	147	29	13.6	SubName: Full=Toxin;
i8k7z1	147	29	13.6	SubName: Full=Toxin;
i8k540	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8jdf9	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8jbk2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8iw97	147	29	13.6	SubName: Full=Toxin;
i8ich0	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8hce8	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8g2m4	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8f7i2	147	29	13.6	SubName: Full=Toxin;
i8f3l7	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8dq75	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8dgv4	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8cs37	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8cj72	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8c8j3	144	29	13.6	SubName: Full=Putative toxin YfjG;
i8bsd2	147	29	13.6	SubName: Full=Toxin;
i8bpb0	147	29	13.6	SubName: Full=Toxin;
i8bke6	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i8bgp5	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7zg08	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7zah6	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7yrp1	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7yjy2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7y550	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7xb99	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7x9k2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7x1z6	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7w9h7	144	29	13.6	SubName: Full=Ribosome association toxin RatA;

i7w039	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7vyu2	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7ttx2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7tlg7	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7sgn6	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7rsz0	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7rj32	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7rfr2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7rbn9	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7r8u5	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7qip6	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i7pid9	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7phi1	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7p5i2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7nuq4	144	29	13.6	SubName: Full=Putative toxin YfjG;
i7nr29	144	29	13.6	SubName: Full=Putative toxin YfjG;
i6y8s0	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y8d9	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y370	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x0g6	133	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ruf5	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rjz6	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rfy7	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6kv49	144	29	13.6	SubName: Full=Putative toxin YfjG;
i6ku26	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i6k2u2	144	29	13.6	SubName: Full=Putative toxin YfjG;
i6k023	144	29	13.6	SubName: Full=Putative toxin YfjG;
i6j9c7	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i6j6s3	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i6ikl3	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i6i7e0	144	29	13.6	SubName: Full=Ribosome association toxin RatA;
i6hth5	144	29	13.6	SubName: Full=Putative toxin YfjG;
i5cri0	96	29	13.6	SubName: Full=RelE/StbE family addiction module toxin;
i4mk04	155	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4id00	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hd15	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4h5t3	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g9l8	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g4y6	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zew8	145	29	13.6	SubName: Full=Putative toxin-antitoxin system toxin componen...
i3dp65	235	32	13.6	SubName: Full=Zeta toxin;
i2rki3	180	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2cqq4	188	29	13.6	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
i1zp90	301	41	13.6	SubName: Full=Exfoliative toxin, putative;
i1sfn7	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i1e207	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9zre6	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9ug99	140	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9cjg4	323	44	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h8ywr6	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i3m4	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i0g6	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hz84	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hn36	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hmb7	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hly8	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f4c8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eyy2	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h8eu70	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7ghb2	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7geq2	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7cel2	111	29	13.6	SubName: Full=Toxin-like peptide;
h6sdv0	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s8d6	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rm62	133	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6lca3	143	29	13.6	SubName: Full=Putative toxin secretion/phage lysis holin;
h5ymd3	127	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h4hn17	210	29	13.6	SubName: Full=Beta-grasp domain toxin protein;
h3tx75	280	38	13.6	SubName: Full=Exfoliative toxin A; EC=3.4.21.-;
h2iqn3	153	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
h1wca5	133	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1sw75	203	29	13.6	SubName: Full=Toxin, beta-grasp domain protein;
h1j0y5	130	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0vvp9	192	29	13.6	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
h0svj0	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0cnd9	280	38	13.6	SubName: Full=Exfoliative toxin A; EC=3.4.21.-;
g9zy63	168	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
g9z4i0	98	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g9z3u6	180	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
g9xqy8	135	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
g9pwa9	87	29	13.6	SubName: Full=RelE/StbE family addiction module toxin;
g9ajb7	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9a4k3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8uhe4	141	29	13.6	SubName: Full=Holin, toxin secretion/phage lysis;
g8p011	141	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8nu58	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8ml64	140	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8mcz2	116	29	13.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g7uq89	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7uci3	110	29	13.6	SubName: Full=Programmed cell death toxin PemK;
g7qyv7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qy15	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7haq2	147	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6ejx1	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5zzf4	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5am48	198	29	13.6	SubName: Full=Anthrax toxin receptor-like protein;
g4hnw9	153	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
g4dg00	134	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4c7v4	152	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g2uw76	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uvw2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2utz5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n8d3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n5s5	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2ia44	143	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
g2gz69	163	29	13.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
g2dmk8	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0z024	203	29	13.6	SubName: Full=Enterotoxin-like toxin X;
g0hm31	143	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9v4n2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uzk8	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9ud47	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8xq09	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m6y6	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8lzz2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8k3f1	136	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f7wvu9	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wsf9	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wra0	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wmc0	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wd97	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7l1k7	204	29	13.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f6dgw5	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bx49	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5u9b0	155	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
f5s3q4	130	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4uzh3	189	29	13.6	SubName: Full=RTX toxin RtxA;
f4tlg2	161	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4qyz4	140	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4lta6	136	29	13.6	SubName: Full=Holin, toxin secretion/phage lysis; SubName: F...
f3s200	136	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3r286	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3qlc0	159	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3lap0	132	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
f3jlu1	115	29	13.6	SubName: Full=Toxin ChpB;
f3ivd0	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3h3y8	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3fl03	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2zal5	317	43	13.6	SubName: Full=PL-toxin I;
f2vck5	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vbq5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v2k0	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gkl7	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ge64	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2g3h5	139	29	13.6	SubName: Full=Probable RTX (Repeat in structural toxin);
f0h397	182	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f0gwd5	133	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
e9zp86	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zl02	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zkl9	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9us95	183	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9upe5	189	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9tp86	194	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9sbn5	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9e6g5	211	29	13.6	SubName: Full=HC-toxin synthetase;
e7n4w6	279	38	13.6	SubName: Full=Zeta toxin;
e7mly9	142	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e7b7m5	157	29	13.6	SubName: Full=Putative ABC associated RTX toxin transporter,...
e6zgp3	192	29	13.6	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
e6vfq8	136	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6tgj9	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6irf1	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ip09	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6i2d2	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6hwk9	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6hk89	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6h8s0	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6h1x6	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gyx5	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ggm4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6g606	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6fyb4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6fkl3	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6fed9	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...

e6f6h4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ex86	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6eka4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e5rm67	189	29	13.6	SubName: Full=Cytolethal distending toxin C;
e5rm62	189	29	13.6	SubName: Full=Cytolethal distending toxin C;
e5av23	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4lk93	279	38	13.6	SubName: Full=Zeta toxin;
e3edi2	162	29	13.6	SubName: Full=RTX toxins and like Ca2+-binding protein;
e3d445	124	29	13.6	SubName: Full=Putative plasmid toxin protein PemK;
e2z1p3	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2ywq0	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2yns2	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2ybk8	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2y4q6	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2wmb2	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wk33	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wa84	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w6t4	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vz32	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vvl1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vmf7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vjm2	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vja1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vde2	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v9y8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v260	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v015	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uzs2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uqz5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2umh6	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uex3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uax8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u321	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tzk2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tri3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tnd8	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tn13	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tgd8	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2taz3	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tam1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2sp59	190	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2pbt4	182	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2cs83	150	29	13.6	SubName: Full=RTX toxin activating protein;
e1nuk2	131	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1npj6	131	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1njk9	131	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1he74	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hbz9	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hb42	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1har2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1ett1	202	29	13.6	SubName: Full=Zeta toxin;
e0hd77	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0h520	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0gvm3	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0gr94	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9yhr6	264	36	13.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d9y0y6	286	39	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xzi5	194	29	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...

d9wau3	207	29	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9w603	189	29	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9w602	172	29	13.6	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d9ruw2	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8ea15	152	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d8aad1	164	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8a659	180	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7xak9	164	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7euj1	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7esi7	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cjb5	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6xzx2	147	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
d6skk8	135	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6kep7	181	29	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6fx35	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fwb8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6frm4	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6flm9	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fid0	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f9x2	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zlk1	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ziw2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zgd3	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z8g7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z5a2	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z4x3	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yug3	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ys40	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yrr2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yjt9	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ygt4	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y8q8	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y4u1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xyz4	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xuz9	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xul9	136	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5uc74	122	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5nvy4	185	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4wta1	257	35	13.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4wae9	257	35	13.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4vme6	257	35	13.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4tzj4	158	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4hqj4	137	29	13.6	SubName: Full=Putative DNA binding protein, xre family toxin...
d4frg2	151	29	13.6	SubName: Full=Putative uncharacterized protein; SubName: Ful...
d4ekf4	161	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4cqt9	173	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d4bky5	145	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d3pgw5	220	30	13.6	SubName: Full=Vascular endothelial growth factor toxin;
d3nwn0	155	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3f7g0	147	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3eha7	150	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
d2ml93	143	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2dxv7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2a7b9	177	29	13.6	SubName: Full=Toxin subunit Set1A;
d1pdr1	106	29	13.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1njz1	139	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
d0l4z8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0fv22	95	29	13.6	SubName: Full=Toxin RelE;

c9lu72	214	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c8nln4	211	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component;
c7pz10	137	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7nx39	127	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7m1d2	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dpw1	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dph5	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dl59	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5cdf6	151	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5an78	116	29	13.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c5a6m7	150	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4k3n8	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3wmw2	160	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
c1aq21	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1ahd3	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0wv69	376	51	13.6	SubName: Full=Possible toxin regulator;
c0vne5	143	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0k3n1	150	29	13.6	RecName: Full=Snake venom vascular endothelial growth factor...
c0b881	146	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
b9k645	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9k4d8	243	33	13.6	SubName: Full=Rhizobiocin/RTX toxin;
b9juu4	301	41	13.6	SubName: Full=Rhizobiocin/RTX toxin;
b8i7p2	138	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
b8hxw4	109	29	13.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b7mn77	163	29	13.6	SubName: Full=Toxin of the YeeV-YeeU toxin-antitoxin system;...
b7mn76	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7lbu1	125	29	13.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7lbu0	160	29	13.6	SubName: Full=Toxin of the YeeV-YeeU toxin-antitoxin system;...
b7jbn6	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd17	93	29	13.6	RecName: Full=U12-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b5g997	103	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component;
b5g8z0	273	37	13.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5es16	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3zgv7	146	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
b3qfe5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3emd7	141	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3eh62	151	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1t1c7	138	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1er33	258	35	13.6	SubName: Full=Cytolethal distending toxin A;
b0niq6	109	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
b0mkv4	143	29	13.6	SubName: Full=Toxin secretion/phage lysis holin;
a9dc27	126	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9bvs5	145	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9as41	116	29	13.6	SubName: Full=Growth inhibitor PemK-like protein; SubName: F...
a8ip70	140	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bq26	157	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7baz1	172	29	13.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
a5wsn7	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wpk3	139	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wp79	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u7z5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u4c8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5l784	172	29	13.6	SubName: Full=Toxin resistance protein;
a5gf53	133	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kll5	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kin7	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4jvl8	116	29	13.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a3z418	143	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a3yv25	152	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3wx60	147	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3wsw4	151	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3tj61	132	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3i114	203	29	13.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
a3eid2	152	29	13.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a2vyn7	147	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vpb6	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vjk3	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2bjp2	129	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ws02	209	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1s0m4	131	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kxb9	280	38	13.6	SubName: Full=Exfoliative toxin A;
a1kx51	280	38	13.6	SubName: Full=Exfoliative toxin A;
a1kp07	142	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kke8	144	29	13.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0fkn6	264	36	13.6	RecName: Full=Astacin-like metalloprotease toxin; EC=3.4.24....
r0mkm1	348	47	13.5	SubName: Full=RTX toxin transporter, ATP-binding protein;
q56uc1	237	32	13.5	SubName: Full=Cytolethal distending toxin type IV subunit A;...
q04bp6	342	46	13.5	SubName: Full=Predicted membrane protein, putative toxin reg...
p84613	281	38	13.5	RecName: Full=Insecticidal crystal toxin protein;
p22313	296	40	13.5	RecName: Full=Killer toxin KHR; AltName: Full=Killer of heat...
o87120	222	30	13.5	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
o06522	223	30	13.5	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
l8ufu9	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
l8u4u3	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
l1ksh3	282	38	13.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1krg1	281	38	13.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j9uff5	312	42	13.5	SubName: Full=Toxin A;
i7iw01	245	33	13.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
i1xuc5	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
i0t129	223	30	13.5	SubName: Full=Zonula occludens toxin domain protein;
h7vjd6	267	36	13.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7vcp7	267	36	13.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7vb44	267	36	13.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h1k0w4	223	30	13.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7y1c6	274	37	13.5	SubName: Full=HC-toxin synthetase;
g5mjj6	289	39	13.5	SubName: Full=Cytolethal distending toxin subunit B;
g4b6l8	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g4b3v8	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g4aug1	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g4apj0	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g4ajd0	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g4a1r5	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g3zhs8	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
g3zas6	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
f0fcq4	251	34	13.5	SubName: Full=Zeta-toxin;
e1iaj6	229	31	13.5	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6l8q3	229	31	13.5	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d6k3z4	289	39	13.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
c9r3b7	222	30	13.5	SubName: Full=Cytolethal distending toxin protein A;
c9lpy3	260	35	13.5	SubName: Full=Putative toxin-antitoxin system protein;
c5f0g4	251	34	13.5	SubName: Full=Cytolethal distending toxin B;
c4tiw6	237	32	13.5	SubName: Full=Cytolethal distending toxin A;
c2ck47	341	46	13.5	SubName: Full=Toxin regulator;
b6wss8	230	31	13.5	SubName: Full=Toxin secretion/phage lysis holin;
b5g7j6	282	38	13.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
r2s6u5	224	30	13.4	SubName: Full=Zeta toxin;

r1afw5	337	45	13.4	SubName: Full=Putative membrane protein, putative toxin regu...
q871r1	336	45	13.4	SubName: Full=Related to protein conferring sensitivity to k...
q45l92	224	30	13.4	SubName: Full=Toxin co-regulated pilin; SubName: Full=Type I...
m1vjz8	253	34	13.4	SubName: Full=Zeta toxin;
l8q1b8	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
l2lpl2	224	30	13.4	SubName: Full=Zeta toxin;
j4ub94	232	31	13.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
i7msg2	276	37	13.4	SubName: Full=Putative insecticidal toxin domain protein;
i3l345	268	36	13.4	SubName: Full=Multidrug and toxin extrusion protein 1;
i0xl60	239	32	13.4	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
i0tzn9	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
i0swi5	253	34	13.4	SubName: Full=Zeta toxin;
h4hn16	238	32	13.4	SubName: Full=Beta-grasp domain toxin protein;
h4hc85	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4gxd0	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4gm60	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4ep55	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4dx50	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4dp66	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4dez4	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4d7x3	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4csp1	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4c3z7	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4bvg0	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4bm64	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4bdy6	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4b857	238	32	13.4	SubName: Full=Beta-grasp domain toxin protein;
h4ayx1	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4ari7	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4ahw5	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h4aa79	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h3yw82	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h3yjh8	238	32	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h3yg91	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h3y8j2	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h3x4q8	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h3s3q0	232	31	13.4	SubName: Full=Enterotoxin-like toxin;
h1t7i8	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h1snq9	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h1sl63	238	32	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h0cpz7	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h0c9a2	238	32	13.4	SubName: Full=Toxin, beta-grasp domain protein;
h0ash6	238	32	13.4	SubName: Full=Toxin, beta-grasp domain protein;
g7y1c5	291	39	13.4	SubName: Full=HC-toxin synthetase;
g0t3d2	290	39	13.4	SubName: Full=Cytolethal distending toxin;
f9kkh2	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f9k3x6	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f9jxt3	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f5wm11	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f5wgd4	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f5wat1	238	32	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f5w8g2	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f3the9	254	34	13.4	SubName: Full=Toxin, beta-grasp domain protein;
f2tij9	277	37	13.4	SubName: Full=Toxin biosynthesis ketoreductase;
e8da25	216	29	13.4	SubName: Full=Cytolethal distending toxin subunit B;
e5r7q9	254	34	13.4	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e5r7f9	232	31	13.4	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
d9y1u1	277	37	13.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...

d9xn51	277	37	13.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xk82	306	41	13.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wqw2	277	37	13.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wcu8	291	39	13.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6m0s8	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
d6hcb3	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
d4fbk0	284	38	13.4	SubName: Full=Toxin secretion/phage lysis holin;
d2yk15	224	30	13.4	SubName: Full=Toxin coregulated pilin;
d2fgc4	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
d2f9y4	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
d1qjp5	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
d1q723	321	43	13.4	SubName: Full=Leukocidin/hemolysin toxin family protein;
c9mvl5	254	34	13.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c8mn43	232	31	13.4	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m6y4	232	31	13.4	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m250	232	31	13.4	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l7s9	232	31	13.4	SubName: Full=Toxin beta-grasp domain-containing protein;
c5jls1	277	37	13.4	SubName: Full=Toxin biosynthesis ketoreductase;
c5gte8	277	37	13.4	SubName: Full=Toxin biosynthesis ketoreductase;
c3xmt5	238	32	13.4	SubName: Full=Cytolethal distending toxin subunit A;
b7tgy3	224	30	13.4	SubName: Full=Toxin co-regulated pilin;
b2za50	224	30	13.4	SubName: Full=Toxin-coregulated pilin;
a6u2t3	254	34	13.4	SubName: Full=Toxin OB-fold domain protein; Flags: Precursor...
a6tyq5	232	31	13.4	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a5itz5	254	34	13.4	SubName: Full=Toxin, OB-fold domain protein; Flags: Precurso...
q8vsq6	240	32	13.3	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q8vpm1	240	32	13.3	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q7wzg4	330	44	13.3	SubName: Full=Exfoliative toxin;
q2pta3	249	33	13.3	SubName: Full=Cytolytic toxin Cyt1;
p0a383	249	33	13.3	RecName: Full=Type-1Aa cytolytic delta-endotoxin; AltName: F...
p0a382	249	33	13.3	RecName: Full=Type-1Aa cytolytic delta-endotoxin; AltName: F...
o06949	240	32	13.3	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
m7ll27	285	38	13.3	SubName: Full=Toxin-coregulated pilus biosynthesis protein E...
m7kdt7	285	38	13.3	SubName: Full=Toxin-coregulated pilus biosynthesis protein E...
m7j6g9	285	38	13.3	SubName: Full=Toxin-coregulated pilus biosynthesis protein E...
m7i7z8	285	38	13.3	SubName: Full=Toxin-coregulated pilus biosynthesis protein E...
m5biw8	301	40	13.3	SubName: Full=Putative HC-toxin efflux carrier TOXA;
m0pv32	285	38	13.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l9tza2	256	34	13.3	SubName: Full=Toxin, beta-grasp domain protein;
k6biz2	271	36	13.3	SubName: Full=Zeta toxin;
j9usr5	315	42	13.3	SubName: Full=Exfoliative toxin A/B;
h4hw33	241	32	13.3	SubName: Full=Zonular occludens toxin family protein;
h4hfc9	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4h616	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4h615	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4en48	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4edm0	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4e6m5	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4ds01	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4d9h0	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4d385	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4cl69	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4ccq8	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4by56	233	31	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4bpq6	241	32	13.3	SubName: Full=Toxin beta-grasp domain protein;
h4b0z9	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4atj2	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4ake9	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;

h4ac75	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h4a409	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h3u5q6	241	32	13.3	SubName: Full=Toxin, beta-grasp domain protein;
h3rx38	241	32	13.3	SubName: Full=Beta-grasp domain toxin protein;
h0cnv7	264	35	13.3	SubName: Full=Toxin, beta-grasp domain protein;
g7tn02	285	38	13.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g5rwe4	240	32	13.3	SubName: Full=Cytolethal distending toxin subunit B;
g5m4l5	240	32	13.3	SubName: Full=Cytolethal distending toxin subunit B;
g2z7b4	226	30	13.3	SubName: Full=Probable toxin; EC=2.4.2.36;
f9xux6	264	35	13.3	SubName: Full=Cytolethal distending toxin;
f9l310	279	37	13.3	SubName: Full=Toxin, beta-grasp domain protein;
f0p3j0	330	44	13.3	SubName: Full=Exfoliative toxin;
e9qg70	226	30	13.3	SubName: Full=Multidrug and toxin extrusion protein 1;
e9d375	346	46	13.3	SubName: Full=Killer toxin sensitivity protein;
e5ray3	241	32	13.3	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e1ekw2	323	43	13.3	SubName: Full=Leukocidin/Hemolysin toxin family;
e1ds35	323	43	13.3	SubName: Full=Leukocidin/Hemolysin toxin family;
e1d4g0	323	43	13.3	SubName: Full=Leukocidin/Hemolysin toxin family;
e1czr3	323	43	13.3	SubName: Full=Leukocidin/Hemolysin toxin family;
d9xzt7	218	29	13.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7i9t8	256	34	13.3	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d6e6k1	354	47	13.3	SubName: Full=Predicted membrane protein, putative toxin reg...
d2n6e4	315	42	13.3	SubName: Full=Exfoliative toxin A;
c9m6s2	240	32	13.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c8mig4	241	32	13.3	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m8z1	241	32	13.3	SubName: Full=Toxin beta-gncated TagFrasp domain-containing ...
c8m2g3	241	32	13.3	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lkq0	241	32	13.3	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l4c5	241	32	13.3	SubName: Full=Toxin beta-grasp domain-containing protein;
b5ty45	226	30	13.3	SubName: Full=Diphtheria toxin repressor;
b5blw1	330	44	13.3	SubName: Full=Exfoliative toxin;
a6u0y6	241	32	13.3	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a6b0c4	323	43	13.3	SubName: Full=Leukocidin/Hemolysin toxin family;
a5vlv0	369	49	13.3	SubName: Full=Membrane protein putative toxin regulator-like...
a5is52	241	32	13.3	SubName: Full=Toxin, beta-grasp domain protein; Flags: Precu...
r1g7v4	243	32	13.2	SubName: Full=Putative tri7-like toxin biosynthesis protein;...
q5f1k5	265	35	13.2	SubName: Full=Cytolethal distending toxin B;
m4yyq1	273	36	13.2	SubName: Full=Putative exfoliative toxin;
l1kwt9	281	37	13.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1klm1	280	37	13.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k4fw70	235	31	13.2	SubName: Full=Zeta toxin family protein;
k2q3r6	304	40	13.2	SubName: Full=Rhizobiocin/RTX toxin;
j8xwd5	295	39	13.2	SubName: Full=RTX toxin protein;
g5q3v3	303	40	13.2	SubName: Full=Cytolethal distending toxin subunit B;
f7mis9	288	38	13.2	SubName: Full=Putative epsilon-toxin type B;
f2f0u1	342	45	13.2	SubName: Full=Predicted membrane protein, putative toxin reg...
d9wmw3	287	38	13.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6e8z1	265	35	13.2	SubName: Full=Zeta toxin;
c6dxx7	288	38	13.2	SubName: Full=Putative epsilon-toxin type B;
c2eu21	370	49	13.2	SubName: Full=Possible toxin regulator;
a5kv82	310	41	13.2	SubName: Full=RTX (Repeat in toxin) cytotoxin;
a4tas8	235	31	13.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4dda8	202	28	13.1	SubName: Full=Zeta-toxin;
r4cxv0	202	28	13.1	SubName: Full=Zeta-toxin;
r4amr2	202	28	13.1	SubName: Full=Zeta-toxin;
r4add3	202	28	13.1	SubName: Full=Zeta-toxin;
r3xvf7	202	28	13.1	SubName: Full=Zeta-toxin;
r3xqs7	202	28	13.1	SubName: Full=Zeta-toxin;

r3x8g3	202	28	13.1	SubName: Full=Zeta-toxin;
r3x2t2	202	28	13.1	SubName: Full=Zeta-toxin;
r3vma1	202	28	13.1	SubName: Full=Zeta-toxin;
r3v1v8	202	28	13.1	SubName: Full=Zeta-toxin;
r3s8a9	202	28	13.1	SubName: Full=Zeta-toxin;
r3rx97	202	28	13.1	SubName: Full=Zeta-toxin;
r3rtw4	202	28	13.1	SubName: Full=Zeta-toxin;
r3mna2	202	28	13.1	SubName: Full=Zeta-toxin;
r3mms7	202	28	13.1	SubName: Full=Zeta-toxin;
r3m6d6	202	28	13.1	SubName: Full=Zeta-toxin;
r3lk98	202	28	13.1	SubName: Full=Zeta-toxin;
r3kp20	202	28	13.1	SubName: Full=Zeta-toxin;
r3klf3	202	28	13.1	SubName: Full=Zeta-toxin;
r3k407	202	28	13.1	SubName: Full=Zeta-toxin;
r3jz95	202	28	13.1	SubName: Full=Zeta-toxin;
r3j004	202	28	13.1	SubName: Full=Zeta-toxin;
r3iy80	202	28	13.1	SubName: Full=Zeta-toxin;
r3iv83	202	28	13.1	SubName: Full=Zeta-toxin;
r3i628	202	28	13.1	SubName: Full=Zeta-toxin;
r3gnu1	202	28	13.1	SubName: Full=Zeta-toxin;
r3ei93	202	28	13.1	SubName: Full=Zeta-toxin;
r3ehp3	202	28	13.1	SubName: Full=Zeta-toxin;
r3d5d2	202	28	13.1	SubName: Full=Zeta-toxin;
r3d4d6	202	28	13.1	SubName: Full=Zeta-toxin;
r3cyz6	202	28	13.1	SubName: Full=Zeta-toxin;
r3chc7	202	28	13.1	SubName: Full=Zeta-toxin;
r3bvq7	202	28	13.1	SubName: Full=Zeta-toxin;
r3bfx9	202	28	13.1	SubName: Full=Zeta-toxin;
r3b7d8	202	28	13.1	SubName: Full=Zeta-toxin;
r3b5g5	202	28	13.1	SubName: Full=Zeta-toxin;
r3b4y6	202	28	13.1	SubName: Full=Zeta-toxin;
r2zgk2	202	28	13.1	SubName: Full=Zeta-toxin;
r2wsb2	202	28	13.1	SubName: Full=Zeta-toxin;
r2s720	202	28	13.1	SubName: Full=Zeta-toxin;
r2ra71	202	28	13.1	SubName: Full=Zeta-toxin;
r2q5l4	176	28	13.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1kxs2	202	28	13.1	SubName: Full=Zeta-toxin;
r0ky74	113	28	13.1	SubName: Full=Toxin secretion ABC transporter ATP-binding pr...
r0dk60	147	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
r0buq7	163	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
q9uz20	161	28	13.1	RecName: Full=Endoribonuclease Nob1; Short=RNase Nob1; EC=3....
q9l8e4	199	28	13.1	SubName: Full=Toxin coregulated pili subunit;
q9a3s1	107	28	13.1	RecName: Full=Toxin RelE4;
q92rq5	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8zm86	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q888h9	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q884t7	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7zsz9	192	28	13.1	SubName: Full=Rac1; SubName: Full=Rac1 protein; SubName: Ful...
q7u1l2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u1d1	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q745v1	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q73yc9	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6upc7	181	28	13.1	SubName: Full=Cytolethal distending toxin C;
q6ruv5	192	28	13.1	RecName: Full=Ras-related C3 botulinum toxin substrate 1; Al...
q6gl60	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1 (Rh...
q5je66	155	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q4wym3	178	28	13.1	SubName: Full=Toxin biosynthesis protein, putative;
q48gi2	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q47088	237	31	13.1	SubName: Full=CdtA; SubName: Full=Cytolethal distending toxi...
q46my2	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3z3w9	155	28	13.1	SubName: Full=Putative toxin;
q3iv79	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3ar22	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q39ar6	123	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2iyt2	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q21b60	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1qf69	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ns09	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1mk99	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1m4x2	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1bkz3	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q13h62	145	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0tsh2	138	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
q0ru60	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0bqa4	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0agc5	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q07lk4	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p96917	135	28	13.1	RecName: Full=Ribonuclease VapC5; Short=RNase VapC5; EC=3.1....
p67863	145	28	13.1	RecName: Full=Snake venom vascular endothelial growth factor...
p63001	192	28	13.1	RecName: Full=Ras-related C3 botulinum toxin substrate 1; Al...
p63000	192	28	13.1	RecName: Full=Ras-related C3 botulinum toxin substrate 1; Al...
p62999	192	28	13.1	RecName: Full=Ras-related C3 botulinum toxin substrate 1; Al...
p62998	192	28	13.1	RecName: Full=Ras-related C3 botulinum toxin substrate 1; Al...
p57674	194	28	13.1	RecName: Full=Probable ribonuclease VapC1; Short=Probable RN...
p45777	305	40	13.1	RecName: Full=Type II secretion system protein C; Short=T2SS...
p45773	146	28	13.1	RecName: Full=Type II secretion system protein G; Short=T2SS...
p0a3r6	152	28	13.1	RecName: Full=Pertussis toxin subunit 4; Short=PTX S4; AltNa...
p0a3r5	152	28	13.1	RecName: Full=Pertussis toxin subunit 4; Short=PTX S4; AltNa...
o85158	133	28	13.1	SubName: Full=Insecticidal toxin complex protein TccZ; SubNa...
o53812	142	28	13.1	RecName: Full=Probable ribonuclease VapC31; Short=Probable R...
o32587	181	28	13.1	SubName: Full=Cytolethal distending toxin C; SubName: Full=C...
o06524	186	28	13.1	SubName: Full=Cytolethal distending toxin protein C;
o06415	137	28	13.1	RecName: Full=Probable ribonuclease VapC3; Short=Probable RN...
n9zln3	147	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
n9y3t1	147	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
n9vue3	163	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
n2ajp3	142	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
n1lrj5	146	28	13.1	SubName: Full=Holin, toxin secretion/phage lysis;
m8cr61	142	28	13.1	SubName: Full=Toxin;
m7vai9	125	28	13.1	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7afl4	145	28	13.1	SubName: Full=Toxin;
m3uul9	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3it91	175	28	13.1	SubName: Full=Zeta toxin;
m3i658	135	28	13.1	SubName: Full=Exfoliative toxin A;
m3cnz2	126	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3c1s6	116	28	13.1	SubName: Full=Death on curing protein, Doc toxin;
m1itp9	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ic95	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0n082	145	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mji9	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0kzq9	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0jky0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fs86	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0f066	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0d438	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bym7	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

m0biw9	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9zqu4	166	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9zhu9	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xcs0	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9wut2	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9w3z3	116	28	13.1	SubName: Full=Membrane protein involved in toxin uptake;
l9vkr6	122	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9tby8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9sx94	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9sgv6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9s7k7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9s5b9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9rkb7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9rh12	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9qyz2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9q649	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l8v4c8	157	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8ux82	157	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8pbi8	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lhc1	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fct4	181	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7fbu8	148	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7dhk8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7a6s9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l7a4n2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6zrj9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6zhp4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6ywh6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6y9q1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6xvk4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6xar3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6wat9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6w3r0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6vay6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6v6d9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6upg5	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6ulm6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6ual6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6tfr0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6tb09	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6svg8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6st06	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6sc20	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6rqr7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6rpb0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6r3r3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6qkp6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6qih4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6pup3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6pqc9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6p070	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6nrm0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6n9h8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6n511	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6mw64	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6md32	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6m6a1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6lxh6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

l6lcx2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6lc82	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6ksm6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6kej9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6jp41	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6jl18	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6j036	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6iy28	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6i605	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6i3p9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6i108	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6hbh2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6gyj7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6gkt0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6gca9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6g6x8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6fz00	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6f9z0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6erb1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6eph3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6e7k5	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6d818	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6d6h4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6cdc9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6c8v8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6c7a5	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6bx56	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6bsl9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6bd38	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6b3e7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6ajx0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6a0p2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l6a014	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5zk18	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5z0k4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5yf34	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5ych1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5y3n1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5xaw2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5x424	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5win1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5wgm8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5vup3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2g0x6	175	28	13.1	SubName: Full=Hirsutellin a toxin;
l1p5v1	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1np02	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1nnw9	115	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
l1kyu3	188	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1kxs4	169	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kx76	188	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l1k782	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qss6	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qrp3	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qlg5	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qf69	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q758	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q474	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0put4	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0ps66	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nsa3	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nrv8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nrm7	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kmk8	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0k476	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0jnz6	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0idd9	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0guc5	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dtj8	146	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zia7	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ysb1	139	28	13.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9y0u1	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qgu9	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p8r1	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p8m7	124	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ncq2	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9iwn7	192	28	13.1	SubName: Full=Putative ras-related c3 botulinum toxin substr...
k9h2b3	156	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9b1s0	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8zmt5	191	28	13.1	SubName: Full=Toxin-antitoxin toxin gnat family;
k8vm70	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8vhn7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8uwl3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8uiy9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8u5z6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8tec6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8tb22	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8t4i3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8s7w4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8rza0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8rwc7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8n2u2	132	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
k6xb55	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wa10	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6vns1	154	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6twl2	146	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
k6m1d3	149	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k6axj1	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5bua3	91	28	13.1	SubName: Full=Txe/YoeB family addiction module toxin;
k5bny5	245	32	13.1	SubName: Full=Pertussis toxin, subunit 1 subfamily;
k5blb7	150	28	13.1	SubName: Full=RTX toxin acyltransferase family protein;
k4z0l9	139	28	13.1	SubName: Full=Death on curing protein, Doc toxin;
k2tui0	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2rz14	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2hd22	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2c9l0	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2c5b4	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1tjh8	154	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component;
k0p8l0	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0mla4	152	28	13.1	SubName: Full=Pertussis toxin subunit 4;
k0f8s3	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0etd5	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0bnh3	125	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
k0aiz7	125	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
j9zir3	125	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
j9cw92	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j9c7c5	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;

j8qdv2	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8l9l1	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8l684	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8i851	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8hhh8	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8fzi8	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8fsq8	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8fen3	136	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j8cx19	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j7yty3	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j7xzg5	146	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j7wmp5	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j7vez8	171	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j7rn04	152	28	13.1	SubName: Full=Pertussis toxin subunit 4;
j7qz95	155	28	13.1	SubName: Full=Putative toxin;
j7qsp1	138	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j7qah4	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7q7r2	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7jgk2	165	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7b1w0	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j6ree2	161	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6e9g7	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j6dsy1	140	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5uhi1	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j4w6u7	390	51	13.1	SubName: Full=Cercosporin toxin biosynthesis protein;
j4rlc5	192	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
j3zxg9	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j3wwb5	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j3s4y6	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1 iso...
j3h6u0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3grz9	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3f5a9	118	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component domain...
j2wwk9	158	28	13.1	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2vak0	221	29	13.1	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j2sun7	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2hmn4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2fkc2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2ffq0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2et58	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2e7p8	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2e609	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2bhg3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2abe0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1wfs4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1te88	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1t9i4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1qmm7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1q3s6	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1pvg3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1nna2	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1mkj3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1kmv3	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1j3u0	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1hxb7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1ht68	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j1hmd3	128	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j1h9m8	149	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
j0wac3	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

j0utg7	161	28	13.1	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0sqr0	152	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0lx36	191	28	13.1	SubName: Full=Toxin-antitoxin antitoxin xre family;
j0k8u6	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0ifs8	152	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0bf41	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9x6n2	140	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wrt9	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9nik8	140	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9ndw6	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9mrk9	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
i9mqv5	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9mgy9	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
i9lxn6	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
i9ljj8	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
i9bth9	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8sx43	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
i7jd74	122	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i7gen1	192	28	13.1	SubName: Full=Macaca fascicularis brain cDNA clone: QtrA-160...
i6y8b0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xw72	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xre1	148	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6wyp3	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qz05	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qsr9	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qsl2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4z233	131	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4iae1	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hw58	145	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4heb0	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ghn4	129	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b2n5	108	28	13.1	SubName: Full=MazE/toxin transcriptional modulator MazF;
i3zu29	122	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zr97	153	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x310	140	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ufk9	174	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3u762	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ts68	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ikl4	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bvl4	122	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ah85	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3a086	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2ztm4	150	28	13.1	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i2xrg2	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2w7h6	150	28	13.1	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i2w5s0	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2vy96	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2vb20	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2uub6	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2uqn8	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2tep5	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2sz34	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2sdv5	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2s4g2	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2q1e7	162	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
i2e1m5	196	28	13.1	SubName: Full=XRE family transcription regulator (Toxin);
i1b599	172	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0rgb9	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

i0r5z6	147	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
i0qwy3	159	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0fkr9	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1 iso...
i0d6p0	141	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
h9zrk0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9unr5	105	28	13.1	SubName: Full=CP4-6 prophage, antitoxin of the YkfI-YafW tox...
h8ywj4	156	28	13.1	SubName: Full=Zeta toxin;
h8m1e1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h8i392	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i1m4	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i0s7	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hli3	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hkr5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hk37	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8fdq7	154	28	13.1	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h8exq1	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewv1	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7s5c3	170	28	13.1	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7c8g8	182	28	13.1	SubName: Full=Cytolethal distending toxin C;
h6s8v0	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s812	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s7t4	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5y438	146	28	13.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
h5x7p2	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h4x1b3	214	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h4uvq5	214	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h3x055	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3vb32	182	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3u5m8	136	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h3trl4	136	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h3keg5	177	28	13.1	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
h2j9w1	146	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
h1z2l8	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1ut79	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1t5d6	136	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h1qjj2	130	28	13.1	SubName: Full=Toxin component;
h1lj50	140	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1k0c6	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0tbw3	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0q339	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0kfb7	222	29	13.1	SubName: Full=Cytolethal distending toxin protein A;
h0kfb5	180	28	13.1	SubName: Full=Cytolethal distending toxin protein C;
h0g6n1	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0fvj4	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0er48	150	28	13.1	SubName: Full=Putative HC-toxin efflux carrier TOXA;
h0efw8	104	28	13.1	SubName: Full=Putative HC-toxin efflux carrier TOXA;
g9z5p7	171	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9w9g9	128	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g9mbb0	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9aj98	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8q125	109	28	13.1	SubName: Full=Toxin-antitoxin toxin family;
g8n9t7	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8mdc8	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7zfw0	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qx53	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qwc3	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gqc9	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5naa9	159	28	13.1	SubName: Full=Putative pertussis-like toxin subunit;

g5ke33	132	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
g5c493	172	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
g4djs6	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4c912	204	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g4b3w0	171	28	13.1	SubName: Full=Cytolethal distending toxin protein C;
g2x395	252	33	13.1	SubName: Full=Multidrug and toxin extrusion protein;
g2us93	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2um67	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2s7x0	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2nhr3	204	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g2n0w7	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mzv9	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2myz0	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mlw7	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2iid1	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2hic3	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1; Su...
g2drh3	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g1ub83	186	28	13.1	SubName: Full=Cytolethal distending toxin protein C;
g0tpq9	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tg71	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jpb4	112	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g0efn3	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0e8p8	108	28	13.1	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
g0ahj4	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9xux8	183	28	13.1	SubName: Full=Cytolethal distending toxin A/C family;
f9uyv8	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uy28	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uaf2	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9ph86	125	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9nc43	101	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
f9n9a4	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f9du13	150	28	13.1	SubName: Full=HicA family toxin-antitoxin system;
f8xtw7	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8xtq5	142	28	13.1	SubName: Full=Addiction module toxin, RelE/StbE family prote...
f8x7j7	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f8m3b6	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2k8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7yby5	129	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x9b6	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wst4	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrk2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrd3	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wn82	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wmk2	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wdt6	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pf47	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7p2m6	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6fu14	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6e195	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dji5	138	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cen2	129	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f6bu86	128	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5zvg4	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f5xsw4	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5txx7	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f5tvh3	101	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
f5tra7	101	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
f5tk05	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...

f5s3r9	174	28	13.1	SubName: Full=GNAT family toxin-antitoxin system;
f5rer8	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5lgv4	139	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f5jei2	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4vfb0	283	37	13.1	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
f4val1	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4una6	181	28	13.1	SubName: Full=Cytolethal distending toxin A/C family protein...
f4ujf6	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4u2u8	101	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4tj51	138	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4t167	122	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f4sir5	120	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4qsx5	167	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4lg57	152	28	13.1	SubName: Full=Toxin subunit 4;
f4b5z1	119	28	13.1	SubName: Full=VapC-type toxin;
f3zhu4	213	28	13.1	SubName: Full=Putative xre family toxin-antitoxin system, an...
f3v6c4	237	31	13.1	SubName: Full=Cytolethal distending toxin A/C family protein...
f3qzs5	202	28	13.1	SubName: Full=Zeta toxin;
f3pah0	184	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3p9e3	144	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3p4n0	101	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
f3mak6	132	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3kn74	188	28	13.1	SubName: Full=RTX toxins and related Ca2+-binding protein;
f3k1x7	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3iqh8	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3iiq6	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3i344	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3hzz3	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3eem7	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3dw32	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3d0y2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f3cze2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f3csc6	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f3bvy0	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f2vav9	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v3x5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v2p2	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ux18	171	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f2l1g1	145	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gng4	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gmx4	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gms4	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2fis7	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f1ygy5	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1vii5	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1vep8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1v8k8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1uxl3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1uqx8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1ul97	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1uc45	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1tx26	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f1tpa0	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f0j809	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0hbl1	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
e9zgk2	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zg78	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zfz6	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

e9tlf5	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e9fkw6	158	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e8tnz6	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8syt1	172	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e8pn85	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7sxl1	237	31	13.1	SubName: Full=Cytolethal distending toxin subunit A;
e7pm88	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7p3h3	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6iw04	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6iql4	202	28	13.1	SubName: Full=Zeta toxin;
e6ikm9	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6idk6	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6hyx9	190	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6hut6	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6hs77	202	28	13.1	SubName: Full=Zeta toxin;
e6hn63	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6hea2	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6h410	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6gsk4	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6glm3	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6gld4	202	28	13.1	SubName: Full=Zeta toxin;
e6ga24	202	28	13.1	SubName: Full=Zeta toxin;
e6g9l7	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6g0t2	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6fhb3	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6f543	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6f2w5	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6exj8	202	28	13.1	SubName: Full=Zeta toxin;
e6eq65	202	28	13.1	SubName: Full=Zeta toxin;
e6eie3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6ebm0	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6e0s3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6dwx5	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6dky0	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6dhg7	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6csn5	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6cbf6	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6c8s8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6byc2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6an76	101	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5zxt9	200	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e5ue02	125	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5rma1	268	35	13.1	SubName: Full=Cytolethal distending toxin A;
e5rm87	268	35	13.1	SubName: Full=Cytolethal distending toxin A;
e5rm82	268	35	13.1	SubName: Full=Cytolethal distending toxin A;
e5rm77	268	35	13.1	SubName: Full=Cytolethal distending toxin A;
e5rm36	192	28	13.1	SubName: Full=Cytolethal distending toxin C;
e4zdn8	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4i276	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4ha79	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4h8u3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4guc2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4gji4	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4gc08	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4g2g2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4fxd7	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4fsn3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4fi70	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...

e4faq5	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4f5l3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4evt1	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4el37	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4eg07	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4ea86	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4e067	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4dr87	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4dnt9	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4dc51	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4d986	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4d087	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4cty1	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4cjp5	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4ccr8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4c5p4	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4byf9	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4bri2	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4b2y9	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4axn8	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4ame3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4a7g6	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e3wim7	160	28	13.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e3isz0	151	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
e3ij98	172	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e3hzx5	156	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3e9d7	165	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
e2z4r1	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e2yz67	139	28	13.1	SubName: Full=Death-on-curing family protein; SubName: Full=...
e2yty3	202	28	13.1	SubName: Full=Zeta toxin;
e2y4c4	202	28	13.1	SubName: Full=Zeta toxin;
e2y409	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e2wew6	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wej0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2y9	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2k7	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2d5	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vrn4	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vra6	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vfd4	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vey8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vet3	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v626	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5q0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5h2	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uuv1	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uuh2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uu94	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uip8	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uic5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ui41	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ud46	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u779	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u744	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tvs0	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tve7	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tv72	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tj35	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

e2tir2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tii8	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tea5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tdy5	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t8q8	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t523	108	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e2sxf6	171	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2qii4	155	28	13.1	SubName: Full=Putative toxin; SubName: Full=Transcriptional ...
e2m9r9	150	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2m927	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1yuf1	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1whh5	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1vkg3	136	28	13.1	SubName: Full=Predicted nucleic acid-binding protein, contai...
e1p0j9	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1mcx0	237	31	13.1	SubName: Full=Putative diphtheria toxin repressor;
e1jv43	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1jpy2	133	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1ipg5	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1i995	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1h6w2	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h6j1	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0r014	124	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
e0qey6	199	28	13.1	SubName: Full=Cytolethal distending toxin A;
e0mth3	128	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0mmt7	171	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, gnat ...
e0h6b5	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0gwr5	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0gjn1	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0gba4	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0g5b4	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0g0q5	202	28	13.1	SubName: Full=Zeta toxin;
d9yfm4	244	32	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9y3c1	115	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9y255	176	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component;
d9y1d5	274	36	13.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xmi6	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9xl40	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9wlt4	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9wes3	106	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8un67	169	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8eq74	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8e128	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8af22	237	31	13.1	SubName: Full=Cytolethal distending toxin A/C family protein...
d7zuv0	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7z4v6	150	28	13.1	SubName: Full=RTX toxin acyltransferase family protein;
d7yid6	180	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7xbr4	172	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7iq56	251	33	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d7enm4	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ena2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7en23	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7d5e1	172	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d7cx07	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6m3x4	291	38	13.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6m3m0	186	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component;
d6kau2	282	37	13.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6k9y3	274	36	13.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6hlt1	162	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

d6fn52	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fmd8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f218	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f1n7	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f1f2	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zdf1	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zd16	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zcs8	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0y2	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0k8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0c6	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yns5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ycw8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ycn7	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ybm2	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y0v0	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y0l9	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xr34	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xqh4	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ukg6	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mkx9	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mkx5	144	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mjn7	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5j9p8	88	28	13.1	SubName: Full=Non-conventional three finger toxin isoform 4;...
d5j9p5	88	28	13.1	SubName: Full=Non-conventional three finger toxin isoform 1;...
d5d4z8	237	31	13.1	SubName: Full=Cytolethal distending toxin, subunit A;
d5buw4	95	28	13.1	SubName: Full=Addiction module toxin, RelE/StbE family;
d4xfl2	145	28	13.1	SubName: Full=GNAT family toxin-antitoxin system;
d4v068	139	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4u2f4	127	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4mx99	351	46	13.1	SubName: Full=Predicted membrane protein, putative toxin reg...
d4k266	352	46	13.1	SubName: Full=Predicted membrane protein, putative toxin reg...
d4jr52	142	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
d4fd27	135	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4c4d9	118	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4c3p8	144	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4c2u7	186	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3mn49	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d3mey4	101	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
d3mbc3	123	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d3f7v2	131	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3f1w4	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3f1l4	148	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3an75	165	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3ae18	163	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2scg5	109	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d1vv29	180	28	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1bg94	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0zwc9	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d0yp07	237	31	13.1	SubName: Full=Diphtheria toxin repressor;
d0wbe5	155	28	13.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
c9yfg8	168	28	13.1	SubName: Full=RTX-II toxin-activating lysine-acyltransferase...
c9y912	168	28	13.1	SubName: Full=RTX-II toxin-activating lysine-acyltransferase...
c9xg65	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c9rwv4	172	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c9lrx3	181	28	13.1	SubName: Full=Putative zeta-toxin;
c8pc38	210	28	13.1	SubName: Full=Xre family toxin-antitoxin system;
c7ye82	202	28	13.1	SubName: Full=Zeta toxin;

c7wgs0	202	28	13.1	SubName: Full=Zeta-toxin;
c7v8k9	202	28	13.1	SubName: Full=Zeta-toxin;
c7uke7	202	28	13.1	SubName: Full=Zeta-toxin;
c7udc1	202	28	13.1	SubName: Full=Zeta-toxin;
c7u172	298	39	13.1	SubName: Full=Putative entericidin like toxin protien;
c7rwa2	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7iun8	139	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
c6uzi4	122	28	13.1	SubName: Full=CP4-44 prophage antitoxin of the YeeV-YeeU tox...
c6dur6	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6du04	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dts0	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6bqj6	108	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c6b8a6	147	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5zzp8	181	28	13.1	SubName: Full=Type III cytolethal distending toxin protein C...
c4tir5	237	31	13.1	SubName: Full=Cytolethal distending toxin A;
c4l4z6	352	46	13.1	SubName: Full=Membrane protein putative toxin regulator-like...
c4k8c4	168	28	13.1	SubName: Full=ADP-ribosyltransferase toxin-2;
c3thj7	155	28	13.1	SubName: Full=Putative toxin;
c2kya2	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2h0h7	202	28	13.1	SubName: Full=Zeta; SubName: Full=Zeta-toxin;
c2d340	328	43	13.1	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
c2ct09	134	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1al83	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1akv8	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0mpk8	152	28	13.1	SubName: Full=Pertussis toxin subunit 4; Flags: Precursor;
b9nxd0	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8kuy8	131	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8i8d7	155	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
b8hzm5	148	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8dhf6	337	44	13.1	SubName: Full=Exfoliative toxin;
b7r200	154	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7mt15	124	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7mnq7	104	28	13.1	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
b7lg95	125	28	13.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7glc4	172	28	13.1	SubName: Full=Toxin-antitoxin addiction module toxin compone...
b6ip13	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd14	93	28	13.1	RecName: Full=U12-lycotoxin-Ls1b; AltName: Full=Toxin-like s...
b6dd13	93	28	13.1	RecName: Full=U12-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b5x3b0	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
b5x1f7	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
b5qxg1	132	28	13.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5gk50	237	31	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component;
b5gfp6	291	38	13.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5emw2	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4wjd9	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4bqr7	136	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
b3x2s7	237	31	13.1	SubName: Full=Cytolethal distending toxin A subunit;
b3q541	140	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3caf9	244	32	13.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b2i3u7	202	28	13.1	SubName: Full=Zeta toxin family protein;
b1k7i0	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0xwe7	178	28	13.1	SubName: Full=Toxin biosynthesis protein, putative;
b0t505	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0r9e8	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0jl59	132	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8l2t4	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8igt0	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8cvj2	143	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a7vy34	161	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
a7gsq5	146	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
a7bz75	136	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6u6p6	141	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6fg04	245	32	13.1	SubName: Full=Putative RTX toxin secretion ATP-binding prote...
a6dnc1	133	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5zdz2	182	28	13.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a5wkb7	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wjz2	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wjr4	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5uqz0	148	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u0d5	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u010	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tzs9	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5lh52	237	31	13.1	SubName: Full=Cytolethal distending toxin A subunit;
a4x9g8	127	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kf65	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kev6	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4ken3	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4d2p1	192	28	13.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1 (Rh...
a4c772	211	28	13.1	SubName: Full=Putative toxin secretion protein;
a3z4j2	149	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3yy98	129	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3ytm1	155	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3cw79	130	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vg51	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfu9	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfn0	137	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1wv56	155	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1wlu5	120	28	13.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a1vcc1	151	28	13.1	SubName: Full=Toxin secretion/phage lysis holin;
a1kgn0	142	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kga5	135	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1hmb4	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ab02	237	31	13.1	SubName: Full=Cytolethal distending toxin type IV subunit A;...
a0rpj0	183	28	13.1	SubName: Full=Cytolethal distending toxin A/C family;
a0axe8	139	28	13.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4fx86	223	29	13.0	SubName: Full=Zeta toxin;
r4f4l1	223	29	13.0	SubName: Full=Zeta toxin;
r4dv63	223	29	13.0	SubName: Full=Zeta toxin;
r4d1t0	223	29	13.0	SubName: Full=Zeta toxin;
r4bum0	223	29	13.0	SubName: Full=Zeta toxin;
r4bqj8	223	29	13.0	SubName: Full=Zeta toxin;
r3yr20	223	29	13.0	SubName: Full=Zeta toxin;
r3ycq1	223	29	13.0	SubName: Full=Zeta toxin;
r3sbv6	223	29	13.0	SubName: Full=Zeta toxin;
r3rnk2	223	29	13.0	SubName: Full=Zeta toxin;
r3rex8	223	29	13.0	SubName: Full=Zeta toxin;
r3r6h2	223	29	13.0	SubName: Full=Zeta toxin;
r3qfb4	223	29	13.0	SubName: Full=Zeta toxin;
r3q3p6	223	29	13.0	SubName: Full=Zeta toxin;
r3mw27	223	29	13.0	SubName: Full=Zeta toxin;
r2nty5	223	29	13.0	SubName: Full=Zeta toxin;
r2m4y5	223	29	13.0	SubName: Full=Zeta toxin;
r2m044	223	29	13.0	SubName: Full=Zeta toxin;
r2b8j9	223	29	13.0	SubName: Full=Zeta toxin;
r2aqp3	223	29	13.0	SubName: Full=Zeta toxin;
r2a1e2	223	29	13.0	SubName: Full=Zeta toxin;

r1zkb0	223	29	13.0	SubName: Full=Zeta toxin;
r1zgx6	223	29	13.0	SubName: Full=Zeta toxin;
r1z386	223	29	13.0	SubName: Full=Zeta toxin;
r1yrx9	223	29	13.0	SubName: Full=Zeta toxin;
r1yep1	223	29	13.0	SubName: Full=Zeta toxin;
r1ydf5	223	29	13.0	SubName: Full=Zeta toxin;
r1y3d9	223	29	13.0	SubName: Full=Zeta toxin;
r1xm08	223	29	13.0	SubName: Full=Zeta toxin;
r1hck9	223	29	13.0	SubName: Full=Zeta toxin;
q5hgr0	315	41	13.0	SubName: Full=Exfoliative toxin, putative;
q2fhr5	315	41	13.0	SubName: Full=Exfoliative toxin A;
p09332	277	36	13.0	RecName: Full=Exfoliative toxin B; EC=3.4.21.-; AltName: Ful...
n6tks0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6t2m9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6sva5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6sly0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6s593	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6s3l1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6rt37	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6rpv0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6rm20	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qw09	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qrl4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qif5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qds7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qdk3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6qdf7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6q4x2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6pnr1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6p0i6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6nzg2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6nyv2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6ny75	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6nc38	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6na41	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6na25	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6n671	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6mq17	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6mgb1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6mfc7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6m0c6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6lwt6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6l340	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6kpv1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6kl52	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6kjf6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6kbi5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6kaw7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6jrt1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6jl97	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6je49	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6j795	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6j6m2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6ivb9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6iic6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6iat4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6i9b2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6htg2	315	41	13.0	SubName: Full=Exfoliative toxin A;

n6hpm7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6hlr4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6hdy8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6gw44	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6gw38	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6grr6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6ge82	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6ga29	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6g170	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6g0u4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6fk84	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6f8q8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6enc1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6eme3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6e574	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6e4g4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6dzr6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6dsg9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6dew3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6ddw5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6cve5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6cb10	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6c248	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6c1n6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6bv15	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6bmt0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6bmh5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6bee9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6b747	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6b277	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6apz8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6a9r6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n6a2i5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5zvs6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5zq22	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5z806	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5z785	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5yuv5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5ylt1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5xy65	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5xk16	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5xfx3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5x849	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5x473	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5x2c5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5wnw8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5wbj7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5w3e5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5w0u9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5vuw3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5vly5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5vff2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5vee1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5vd65	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5uyw4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5uy59	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5uet3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5txy9	315	41	13.0	SubName: Full=Exfoliative toxin A;

n5tsm8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5tg01	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5tbu2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5t9g9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5st28	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5snh2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5sa76	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5s4p6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5s3w7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5rk12	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5r4y9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5r181	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5qz45	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5qtc3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5qkn4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5qed9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5q4u8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5puv9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5pt17	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5p5f8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5p3z2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5npg0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5nhg6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5n159	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5mmh1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5mfy1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5mcu3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5mbe7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5mah0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5lvy0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5lta8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5lrn6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5l583	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5l2c7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5krt4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5kmm7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5ki09	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5kdq1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5k4q1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5jr25	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5jcp4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5izk5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5ixw9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5itc7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5i6n2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5hyu7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5hvj8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5hqu9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5hnj7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5hd41	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5h9s7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5h5a7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5h336	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5ggm4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5g8p5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5g4a1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5fzl7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5fwv8	315	41	13.0	SubName: Full=Exfoliative toxin A;

n5fjb0	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5fgq2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5fey5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5en91	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5emb7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5e3w8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5e205	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5e0m5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5dqm4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5d674	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5d2j9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5cr84	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5cp19	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5cgx3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5cfs6	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5c1v3	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5blh1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5b647	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5b233	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5azu8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5atx2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5ank8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5agy5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5a637	315	41	13.0	SubName: Full=Exfoliative toxin A;
n5a567	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4zsf8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4zjl1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4zfd8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4z2z4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4yzk2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4yzh4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4ybc2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4y8j7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n4y1i8	315	41	13.0	SubName: Full=Exfoliative toxin A;
n2y8k5	308	40	13.0	SubName: Full=Zeta toxin family protein;
n1zft9	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1yqp1	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1yp28	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1yic2	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1ygm7	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1y9h4	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1xsp5	315	41	13.0	SubName: Full=Exfoliative toxin A;
n1xqm8	315	41	13.0	SubName: Full=Exfoliative toxin A;
m1wy21	239	31	13.0	SubName: Full=Toxin secretion ABC transporter ATP-binding pr...
l9tyx9	315	41	13.0	SubName: Full=Exfoliative toxin;
l5kkz5	307	40	13.0	SubName: Full=Ras-related C3 botulinum toxin substrate 3;
l2rpd1	223	29	13.0	SubName: Full=Zeta toxin;
l2qrl7	223	29	13.0	SubName: Full=Zeta toxin;
l2p964	223	29	13.0	SubName: Full=Zeta toxin;
l2nr29	223	29	13.0	SubName: Full=Zeta toxin;
l2i6p7	223	29	13.0	SubName: Full=Zeta toxin;
l1l5k1	246	32	13.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1kre1	300	39	13.0	SubName: Full=Pertussis toxin, subunit 1;
l0lxn6	462	60	13.0	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
k6htw8	247	32	13.0	SubName: Full=Zeta toxin;
j7cut0	223	29	13.0	SubName: Full=Zeta toxin;
j7cjg3	223	29	13.0	SubName: Full=Zeta toxin;
j7c5h2	223	29	13.0	SubName: Full=Zeta toxin;

j6z8e0	223	29	13.0	SubName: Full=Zeta toxin;
j6yny7	223	29	13.0	SubName: Full=Zeta toxin;
j6ra48	223	29	13.0	SubName: Full=Zeta toxin;
j6g1t6	223	29	13.0	SubName: Full=Zeta toxin;
j3jaa5	261	34	13.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j1eti6	315	41	13.0	SubName: Full=Exfoliative toxin;
i6ayy5	408	53	13.0	SubName: Full=Zonular occludens toxin (Zot); Flags: Precurso...
i5ay19	315	41	13.0	SubName: Full=Zonula occludens toxin; Flags: Precursor;
i3hdm2	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3h9h0	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3h5u4	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3gn46	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3ggx0	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3g3i1	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
i3fvq3	315	41	13.0	SubName: Full=C4-dicarboxylate transporter/malic acid transp...
h7c8g7	269	35	13.0	SubName: Full=Cytolethal distending toxin B;
h6nu24	284	37	13.0	SubName: Full=Pertussis toxin, subunit 1 subfamily;
h6ln29	315	41	13.0	SubName: Full=Exfoliative toxin A;
h4h0n2	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4gq09	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4eda2	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h4e8z4	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h4dz23	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4di87	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4d102	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h4cuq4	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4cll9	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h4cbt5	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h4c654	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h4bg87	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h3u5q7	238	31	13.0	SubName: Full=Toxin, beta-grasp domain protein;
h3tps6	238	31	13.0	SubName: Full=Toxin, beta-grasp domain protein;
h3s692	238	31	13.0	SubName: Full=Beta-grasp domain toxin protein;
h3rvw5	231	30	13.0	SubName: Full=Enterotoxin-like toxin;
h2b2r7	239	31	13.0	SubName: Full=Putative toxin;
h1t2r7	238	31	13.0	SubName: Full=Toxin, beta-grasp domain protein;
h0cdq3	238	31	13.0	SubName: Full=Toxin, beta-grasp domain protein;
g8pyb9	246	32	13.0	SubName: Full=Zeta toxin;
f9jps7	238	31	13.0	SubName: Full=Toxin, beta-grasp domain protein;
f6a157	269	35	13.0	SubName: Full=Zeta toxin;
f5vs19	261	34	13.0	SubName: Full=Zeta toxin;
f5lud5	269	35	13.0	SubName: Full=Zeta toxin;
f4fp19	231	30	13.0	SubName: Full=Staphylococcal enterotoxin-like toxin;
f4fp13	231	30	13.0	SubName: Full=Staphylococcal enterotoxin-like toxin;
f2zal6	315	41	13.0	SubName: Full=PL-toxin II;
e4nmf6	299	39	13.0	SubName: Full=Zonular occludens toxin (Zot);
d9ww89	299	39	13.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9w797	331	43	13.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6t8f2	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d4uh24	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d4u339	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d4rgm5	223	29	13.0	SubName: Full=Zeta toxin family protein;
d2fl45	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d1qwj6	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d1qlj8	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
d1q682	315	41	13.0	SubName: Full=Exfoliative toxin A/B;
c9l3x9	215	28	13.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c8mig7	315	41	13.0	SubName: Full=Exfoliative toxin A;

c8m8y5	315	41	13.0	SubName: Full=Exfoliative toxin A;
c8lbp3	315	41	13.0	SubName: Full=Exfoliative toxin A;
c8l4b9	315	41	13.0	SubName: Full=Exfoliative toxin A;
c5tns4	324	42	13.0	SubName: Full=Putative RTX toxin exported protein;
b9kdq3	270	35	13.0	SubName: Full=Cytolethal distending toxin, subunit CdtA;
b5gcj6	277	36	13.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
a6zqf9	276	36	13.0	SubName: Full=Killer toxin resistant protein;
a6qg72	315	41	13.0	SubName: Full=Exfoliative toxin A;
a6qe84	231	30	13.0	SubName: Full=Staphylococcal enterotoxin-like toxin;
a6qe79	231	30	13.0	SubName: Full=Staphylococcal enterotoxin-like toxin;
a4f2c5	284	37	13.0	SubName: Full=Cytolethal distending toxin B;
a3ke17	270	35	13.0	SubName: Full=Cytolethal distending toxin A;
a3ke14	270	35	13.0	SubName: Full=Cytolethal distending toxin A;
r4f9g2	224	29	12.9	SubName: Full=Zeta toxin;
r3rfi1	224	29	12.9	SubName: Full=Zeta toxin;
r3qzd8	224	29	12.9	SubName: Full=Zeta toxin;
r3p8g4	224	29	12.9	SubName: Full=Zeta toxin;
r2w1d6	224	29	12.9	SubName: Full=Zeta toxin family protein;
r2n6i1	224	29	12.9	SubName: Full=Zeta toxin;
r2cp39	224	29	12.9	SubName: Full=Zeta toxin;
r1z0y8	224	29	12.9	SubName: Full=Zeta toxin;
r1vz05	224	29	12.9	SubName: Full=Zeta toxin;
m8xrn2	341	44	12.9	SubName: Full=Zonular occludens toxin family protein;
m8bj92	280	36	12.9	SubName: Full=Multidrug and toxin extrusion protein 1;
m3dg52	272	35	12.9	SubName: Full=Xre family toxin-antitoxin system antitoxin co...
m1wcy5	341	44	12.9	SubName: Full=Related to protein conferring sensitivity to k...
m0pxf9	264	34	12.9	SubName: Full=RTX toxin transporter, ATP-binding protein;
l7eud2	248	32	12.9	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l2naz0	224	29	12.9	SubName: Full=Zeta toxin;
l2mj08	224	29	12.9	SubName: Full=Zeta toxin;
l2l8q5	224	29	12.9	SubName: Full=Zeta toxin;
l2kx87	224	29	12.9	SubName: Full=Zeta toxin;
l2ki77	224	29	12.9	SubName: Full=Zeta toxin;
l2icc3	224	29	12.9	SubName: Full=Zeta toxin;
l1qxb5	286	37	12.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k4rfw7	255	33	12.9	SubName: Full=ArsR family toxin-antitoxin system, antitoxin ...
k2pm82	310	40	12.9	SubName: Full=Exfoliative toxin A;
k2nfm0	342	44	12.9	SubName: Full=Toxin regulator;
i0h0g8	326	42	12.9	SubName: Full=Putative zeta toxin;
h6c935	272	35	12.9	SubName: Full=Toxin biosynthesis ketoreductase;
h4hl79	232	30	12.9	SubName: Full=Enterotoxin-like toxin;
h4h0n4	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4gq11	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4evy4	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4di89	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4cuq6	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4c656	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4by58	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h4bg89	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h3s694	241	31	12.9	SubName: Full=Beta-grasp domain toxin protein;
h0eh70	225	29	12.9	SubName: Full=Putative HC-toxin synthetase;
g9svy4	224	29	12.9	SubName: Full=Zeta-toxin;
g9svf8	224	29	12.9	SubName: Full=Zeta-toxin;
g7fbw9	326	42	12.9	SubName: Full=Exfoliative toxin A/B;
f8lvx2	256	33	12.9	SubName: Full=Zeta toxin;
f3zg81	286	37	12.9	SubName: Full=Putative xre family toxin-antitoxin system, an...
e7n992	217	28	12.9	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e3r6w9	271	35	12.9	SubName: Full=Putative toxin-antitoxin system, toxin compone...

d4sng0	224	29	12.9	SubName: Full=Zeta toxin family protein;
d4qsl5	224	29	12.9	SubName: Full=Zeta toxin family protein;
d1vv17	224	29	12.9	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c7n1m0	357	46	12.9	SubName: Full=Predicted membrane protein, putative toxin reg...
b7lkz6	311	40	12.9	SubName: Full=Putative zeta toxin poison-antidote element;
b1sx84	303	39	12.9	SubName: Full=Zonular occludens toxin;
b1be44	286	37	12.9	SubName: Full=Non-toxin haemagglutinin HA-33;
a8fgc2	342	44	12.9	SubName: Full=Possible toxin regulator;
a3unn4	249	32	12.9	RecName: Full=Putative NAD(+)--arginine ADP-ribosyltransfera...
q8iae2	226	29	12.8	RecName: Full=Toxin PsTX-20A; Short=Pstx20; Short=ptx20a; Al...
q7lzu3	345	44	12.8	SubName: Full=Killer toxin K28;
q5mq69	265	34	12.8	SubName: Full=Beta2 toxin;
q5hx87	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
q56uc0	273	35	12.8	SubName: Full=Cytolethal distending toxin B; SubName: Full=C...
q47089	273	35	12.8	SubName: Full=CdtB; SubName: Full=Cytolethal distending toxi...
q46668	258	33	12.8	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
q46308	336	43	12.8	SubName: Full=Beta-toxin; Flags: Precursor;
q46181	336	43	12.8	SubName: Full=Beta-toxin;
q46101	265	34	12.8	SubName: Full=CdtB; SubName: Full=Cytolethal distending toxi...
q0pc57	265	34	12.8	SubName: Full=Cytolethal distending toxin B; Flags: Precurso...
o86264	265	34	12.8	SubName: Full=Beta 2 toxin; Flags: Precursor;
o32585	258	33	12.8	SubName: Full=Cytolethal distending toxin A; SubName: Full=C...
n4xex6	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
k6tky6	313	40	12.8	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
k0hgs3	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
j7s0h8	265	34	12.8	SubName: Full=Cytolethal distending toxin B;
j3jan1	243	31	12.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
i7h361	226	29	12.8	SubName: Full=Diphtheria toxin repressor;
i0vkx7	258	33	12.8	SubName: Full=Type III cytolethal distending toxin protein C...
i0at63	226	29	12.8	SubName: Full=Diphtheria toxin repressor;
h8d1b8	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
h8cun4	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8clw1	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8ch31	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8ced0	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8c801	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8c236	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8byi3	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8bq00	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8bpj7	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8bgr7	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8bdn4	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8b731	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8b0u9	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8axd8	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8anx1	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8amf3	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
h8abu7	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8a4r8	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h8a2p0	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7zxx9	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7zs76	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7zn44	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7zfx4	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7z907	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7z7e9	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7z2m4	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7ynn3	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...

h7yi88	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7yaj4	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7y8x5	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7y023	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7xxc5	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7xsi1	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7xn80	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7xgi5	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7x6v1	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7wzb9	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h4a410	250	32	12.8	SubName: Full=Beta-grasp domain toxin protein;
h3u7x3	242	31	12.8	SubName: Full=Toxin, beta-grasp domain protein;
h3tsb6	242	31	12.8	SubName: Full=Toxin, beta-grasp domain protein;
h1t1u4	242	31	12.8	SubName: Full=Toxin, beta-grasp domain protein;
g8fee8	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
g8fah9	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
g2bq30	281	36	12.8	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
f9rba5	257	33	12.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9jmz6	242	31	12.8	SubName: Full=Toxin, beta-grasp domain protein;
f8vem4	243	31	12.8	SubName: Full=Putative pertussis-like toxin subunit; EC=2.4....
f4una8	258	33	12.8	SubName: Full=Cytolethal distending toxin subunit A (CDT A);...
e7sxl2	273	35	12.8	SubName: Full=Cytolethal distending toxin subunit B;
e6rzc6	265	34	12.8	SubName: Full=Cytolethal distending toxin;
e6rt81	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B;
e6i7m2	218	28	12.8	SubName: Full=Zeta toxin;
e2sxv9	298	38	12.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1pnv6	265	34	12.8	SubName: Full=Cytolethal distending toxin subunit B-like pro...
d9xl90	289	37	12.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wbk0	313	40	12.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7n6q6	243	31	12.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d6k4k2	289	37	12.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5d4z7	273	35	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
d4rzg2	234	30	12.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3fl55	265	34	12.8	SubName: Full=Cytolethal distending toxin B;
d2yzq3	226	29	12.8	RecName: Full=Hemolytic toxin Avt-2; AltName: Full=Avt-II; F...
c5zzq0	258	33	12.8	SubName: Full=Type III cytolethal distending toxin protein C...
c4tiq6	258	33	12.8	SubName: Full=Cytolethal distending toxin A;
c4k4z6	242	31	12.8	SubName: Full=ADP-ribosyltransferase toxin-1;
c1ldv5	257	33	12.8	SubName: Full=Killer toxin REsistant;
c0ay17	358	46	12.8	SubName: Full=Putative hemolysin toxin protein A;
b6vnm8	336	43	12.8	SubName: Full=Putative Insecticial toxin;
b5ghw6	289	37	12.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5gdi9	290	37	12.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b3x2s6	273	35	12.8	SubName: Full=Cytolethal distending toxin B subunit;
b1r9v5	336	43	12.8	SubName: Full=Beta-toxin;
b1blg4	336	43	12.8	SubName: Full=Beta-toxin;
b0yr14	288	37	12.8	SubName: Full=Putative RTX toxin-related Ca2+-binding protei...
a8fjn4	265	34	12.8	SubName: Full=Cytolethal distending toxin, type I deoxyribon...
a5lh53	273	35	12.8	SubName: Full=Cytolethal distending toxin B subunit;
a5khz7	265	34	12.8	SubName: Full=Cytolethal distending toxin;
a4f283	265	34	12.8	SubName: Full=Cytolethal distending toxin B;
a4f277	265	34	12.8	SubName: Full=Cytolethal distending toxin B;
a3zks3	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
a3yq19	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
a3ykt6	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
a1vxg3	265	34	12.8	SubName: Full=Cytolethal distending toxin, subunit B;
a1syn7	282	36	12.8	SubName: Full=Cholera toxin transcriptional activator-like p...
a1ab03	273	35	12.8	SubName: Full=Cytolethal distending toxin type IV subunit B;...

q8np95	228	29	12.7	RecName: Full=Diphtheria toxin repressor; AltName: Full=Iron...
q8egz7	252	32	12.7	SubName: Full=Bifunctional toxin-antitoxin system HepN famil...
q878k3	292	37	12.7	SubName: Full=Putative exfoliative toxin;
q1pl25	251	32	12.7	SubName: Full=RTX toxin;
p30409	228	29	12.7	RecName: Full=CD9 antigen; AltName: Full=27 kDa diphtheria t...
p01546	316	40	12.7	RecName: Full=M1-1 protoxin; AltName: Full=Killer toxin K1; ...
n5wfk7	315	40	12.7	SubName: Full=Exfoliative toxin A;
n5s3i5	315	40	12.7	SubName: Full=Exfoliative toxin A;
m8ax00	284	36	12.7	SubName: Full=Multidrug and toxin extrusion protein 2;
l1l098	284	36	12.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k4zbi8	268	34	12.7	SubName: Full=Zeta toxin;
k0jky3	332	42	12.7	SubName: Full=Toxin A;
g4clj5	353	45	12.7	SubName: Full=Zonula occludens toxin family protein;
e9ux98	291	37	12.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e7rzi7	244	31	12.7	SubName: Full=HipA family toxin-antitoxin system;
e3yzx0	259	33	12.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d9xu76	300	38	12.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6k021	275	35	12.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d0k489	315	40	12.7	SubName: Full=Exfoliative toxin, putative;
b5gjz3	276	35	12.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b2vd51	259	33	12.7	SubName: Full=Probable toxin transcriptional activator ToxR;...
a7jzc6	323	41	12.7	SubName: Full=Leukocidin/Hemolysin toxin family;
a4cwg1	394	50	12.7	SubName: Full=RTX toxins and related Ca2+-binding protein;
a2w5k6	228	29	12.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4g1b1	157	27	12.6	SubName: Full=Toxin-antitoxin addiction module toxin compone...
r4fcy0	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4dj09	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4d2d1	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4bz18	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4b556	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4ars4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r3ygr5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r3y2h2	202	27	12.6	SubName: Full=Zeta-toxin;
r3pyq3	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2ynp5	202	27	12.6	SubName: Full=Zeta-toxin;
r2v7m9	202	27	12.6	SubName: Full=Zeta-toxin;
r2v4w3	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2psp8	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2nw06	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2lzm1	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2e2g9	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2bvy0	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2bm18	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2bcr4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r2b7x9	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r1zia5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r1h633	105	27	12.6	SubName: Full=CP4-6 prophage, antitoxin of the YkfI-YafW tox...
r0cka9	159	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
q9x7l4	142	27	12.6	RecName: Full=Probable VapC ribonuclease R02377; Short=Proba...
q9uzg8	169	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9rfj6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q99ta4	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q93gl6	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q8vps4	123	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8gj12	181	27	12.6	SubName: Full=Cytolethal distending toxin C;
q8ekn0	128	27	12.6	SubName: Full=Toxin-antitoxin system antidote;
q84a22	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q7wxe7	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q7ua29	148	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u2h4	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7tyb9	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7net0	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7dk11	186	27	12.6	SubName: Full=Cytolethal distending toxin; SubName: Full=Cyt...
q7d9k6	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7a514	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q7a0l8	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q74dc5	194	27	12.6	SubName: Full=Toxin, Fic family;
q74ab8	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q745w2	129	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6wrw3	358	45	12.6	SubName: Full=Alveicin B bacteriocin toxin;
q6upc1	181	27	12.6	SubName: Full=Cytolethal distending toxin C;
q6gft9	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q6g8g5	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q6dgb7	192	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 3 (Rh...
q5nzh9	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5jja5	149	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5jef9	154	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5iqz6	181	27	12.6	SubName: Full=Cytolethal distending toxin C;
q5hf12	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q46vm1	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3jay9	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2yth5	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q2rm27	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j7u3	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j5i5	127	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2ffx6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
q2a1d3	155	27	12.6	SubName: Full=Toxin secretion ABC transporter ATP-binding pr...
q213p8	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q211z4	123	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q1yn36	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nre2	149	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nq49	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nmh1	128	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1m497	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1j2w8	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1i180	86	27	12.6	RecName: Full=Toxin Td1; AltName: Full=PT-beta* NaTx13.1; Fl...
q1d9z3	192	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q18en3	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0k6c1	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0f2a6	104	27	12.6	SubName: Full=CcdB-like toxin protein;
q0b638	93	27	12.6	SubName: Full=Addiction module toxin, RelE/StbE family;
p95007	137	27	12.6	RecName: Full=Probable ribonuclease VapC18; Short=Probable R...
p64912	114	27	12.6	RecName: Full=mRNA interferase MazF2; EC=3.1.-.-; AltName: F...
p64911	114	27	12.6	RecName: Full=mRNA interferase MazF6; EC=3.1.-.-; AltName: F...
p64880	134	27	12.6	RecName: Full=Probable VapC ribonuclease Mb1587; Short=Proba...
p64879	134	27	12.6	RecName: Full=Ribonuclease VapC11; Short=RNase VapC11; EC=3....
p60764	192	27	12.6	RecName: Full=Ras-related C3 botulinum toxin substrate 3; Al...
p60763	192	27	12.6	RecName: Full=Ras-related C3 botulinum toxin substrate 3; Al...
p60266	66	27	12.6	RecName: Full=Beta-mammal toxin Css4; AltName: Full=Css IV; ...
p41851	165	27	12.6	RecName: Full=Type II secretion system protein M; Short=T2SS...
p15226	84	27	12.6	RecName: Full=Beta-mammal/insect toxin Ts1; AltName: Full=PT...
p10410	125	27	12.6	RecName: Full=Killer toxin HM-1; Flags: Precursor;
p0cv93	141	27	12.6	RecName: Full=Probable ribonuclease VapC16; Short=Probable R...
p0a653	139	27	12.6	RecName: Full=Probable VapC ribonuclease Mb2004c; Short=Prob...
p0a652	139	27	12.6	RecName: Full=Probable ribonuclease VapC36; Short=Probable R...
o87122	186	27	12.6	SubName: Full=Cytolethal distending toxin C;

o52285	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
n9zxp6	159	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
n9yyj8	140	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
n6whe9	181	27	12.6	SubName: Full=Type III cytolethal distending toxin protein C...
n4n6r7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n4mpm7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n3m6k0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n3l881	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n3iq96	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2wav8	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2v311	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2u784	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2tyf3	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2th36	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2r301	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2q0a7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2mjk7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2llq6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2igv9	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2dg24	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
n2bvv6	137	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
n2bvm5	137	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
n1nr51	135	27	12.6	SubName: Full=JHE-like toxin, ''Photorhabdus insecticidal re...
n1mje0	111	27	12.6	SubName: Full=Death on curing protein, Doc toxin;
n1lkh8	183	27	12.6	SubName: Full=Putative toxin component near putative ESAT-re...
n1kv14	181	27	12.6	SubName: Full=Putative cytolethal distending toxin subunit A...
n1kic7	181	27	12.6	SubName: Full=Putative cytolethal distending toxin subunit A...
m9bh15	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8zuk1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8xqe4	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8xhb2	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8xb20	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8wlq9	133	27	12.6	SubName: Full=Ribosome association toxin RatA;
m8vhd0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8ui59	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8u9v5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8u254	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8ruv7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m8rs11	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
m7wnv6	122	27	12.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7uye8	125	27	12.6	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7us54	125	27	12.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7uai3	122	27	12.6	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7saa1	97	27	12.6	SubName: Full=Putative structural toxin protein;
m7luc0	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7ldp3	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7l9c9	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7kl67	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7k5c3	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7jma9	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7jdw6	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7j408	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7iui7	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7it85	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7i0b5	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7hsx5	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7hlv0	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7haj9	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;

m7h6t0	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7gpj6	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m7gjw0	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
m6ags7	196	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m5vn57	196	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m3dx82	105	27	12.6	SubName: Full=CP4-6 prophage, antitoxin of the YkfI-YafW tox...
m3de70	196	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
m2yee6	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2qu74	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2pt00	117	27	12.6	SubName: Full=Toxin-Like Protein Sklp;
m2kae7	261	33	12.6	SubName: Full=Zeta-toxin;
m1su75	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1snm4	181	27	12.6	SubName: Full=Cytolethal distending toxin subunit C;
m1ijp3	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ii16	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ib30	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mmt5	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0lz34	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0kpy4	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ju81	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0i0q8	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0gim2	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0d003	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bir0	149	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0a970	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9zsf0	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9znz6	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9vkc0	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9txt9	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
l9qyt6	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9qck0	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l9pkv3	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8vs79	193	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l8uzv5	193	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l8u0l3	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
l8qe64	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
l8q9s8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
l8q9p6	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
l8mkh0	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8kvf6	145	27	12.6	SubName: Full=Toxin with endonuclease activity YhaV;
l8kuc5	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8j146	207	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
l8aen4	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7gqw8	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7gfb7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7gdb5	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fca8	128	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l7f9p5	93	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7f649	74	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7f1d4	165	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7eyl9	128	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l7ewl7	93	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7da32	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
l7d4t8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
l5w2d0	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5nwm0	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l5j0f6	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l5d643	341	43	12.6	SubName: Full=Phage zona occludens toxin;

l5d116	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5aqm0	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4tks7	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l4rjk1	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4jqx7	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4j019	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4czd3	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3zw01	125	27	12.6	SubName: Full=Toxin YeeV;
l3yus2	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3yuk2	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3x1b6	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l3hlg0	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l3gty0	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l3bsf3	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l3azf8	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l2yjw0	341	43	12.6	SubName: Full=Phage zona occludens toxin;
l2xn21	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2wjl7	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2s4x5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2rxb6	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2qjs0	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2q6m8	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2njb7	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2jaj5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l2hti3	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l1qp89	167	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1qd82	146	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1psm9	166	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1ns78	188	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
l1mih8	201	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1kla1	135	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l0rn85	152	27	12.6	SubName: Full=RTX toxin activating lysine-acyltransferase;
l0qxs4	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qv34	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0quj5	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qth9	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qrd2	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qm21	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qh87	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qg92	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qf74	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q7f4	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q6k8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q6k6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q115	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pxn8	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ptt0	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nwc1	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nvh1	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nu34	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ntj4	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0m1g3	136	27	12.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l0kin5	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kg97	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0j877	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0j864	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gt97	154	27	12.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
k9y779	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

k9x2w5	129	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ves3	123	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9v0v7	125	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ugl9	152	27	12.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
k9tql2	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qc48	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p6y9	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9nbp0	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9fam0	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9c7d2	72	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k8zcv0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
k8vfn2	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8uwz5	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8ujt9	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8ttj6	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8t7z1	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8syy6	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8sqa0	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8rv95	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8ru25	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8rjr9	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k8kmt2	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7wl93	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7rvs9	111	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
k7bek6	192	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 3 (Rh...
k6wuj6	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6erd2	196	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k6cjb0	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4zq27	158	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
k4zna5	186	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
k4zi18	139	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
k4qq54	152	27	12.6	SubName: Full=Pertussis toxin subunit 4;
k4len6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k3lv16	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k3hmj1	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k3h697	145	27	12.6	SubName: Full=Ribosome association toxin RatA;
k2tl94	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2q458	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2kmp8	88	27	12.6	SubName: Full=Toxin of the YoeB-YefM toxin-antitoxin system;...
k2jss0	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2jmm3	358	45	12.6	SubName: Full=RTX toxin;
k2b6v4	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1w1y8	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1ugj3	171	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
k1mc05	142	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
k0whj4	127	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0vr11	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0vm07	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0pwb5	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0pny2	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0lgn1	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
j9zdm2	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j9wd27	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j9j5q8	135	27	12.6	SubName: Full=Anthrax toxin expression trans-acting positive...
j9dw22	125	27	12.6	SubName: Full=HigB toxin protein;
j9bb17	141	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j9b1z8	141	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j8p6b5	141	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;

j8k2d3	162	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j8ed95	165	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j8b4i4	165	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j7z212	141	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j7v8u0	139	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
j7cuy0	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j7crk3	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j7c4m6	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j7bxp8	143	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j7ajg5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6zqq6	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6z2s6	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6yau1	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6x8y0	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6wgk2	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6wby4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6v5s4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6u0y4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6sxh2	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6skv8	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6rt20	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6jxa3	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6huf4	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6dyk9	135	27	12.6	SubName: Full=Anthrax toxin expression trans-acting positive...
j6avl5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6ag58	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
j5usy7	184	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j5cdd9	140	27	12.6	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
j5avn3	183	27	12.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j4t904	196	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
j4ji66	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3dc57	215	27	12.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j3bgm7	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3atr6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3a8h9	195	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j2t2f9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2sfz2	146	27	12.6	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2s1b7	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2qk13	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2iln2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2i1a4	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2hs70	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2g0x3	128	27	12.6	SubName: Full=RTX toxin and Ca2+-binding protein;
j1sny8	152	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0zm19	164	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0upb3	420	53	12.6	SubName: Full=JHE-like toxin PirB;
j0mpy2	164	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0lsk6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
j0l278	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
j0gbd8	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0ec07	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0eaf8	164	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0biu3	149	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wx91	123	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wr51	147	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9n4f4	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9cqt9	154	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8ty44	110	27	12.6	SubName: Full=Structural toxin protein RtxA;

i8tbg0	149	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8slx8	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8s0t6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8q1b4	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8p2a3	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8nym7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8lyg5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8ksj3	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8jxx6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8jef0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8j2y3	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8h4l5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8g9m0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8g833	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8fw85	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8fcn1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8f8h7	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8clt1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8b7y5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8ay95	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8a962	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i8a5j1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7z5m0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7yjb2	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7y5q8	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7xyb9	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7xx27	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7x193	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7wlg6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7w355	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7vuv2	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7vk00	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7vey1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7v6e1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7uzr2	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7uvt9	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7unc0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7ua88	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7u9u3	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7t8p6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7src5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7sm92	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7rw13	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7qib0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7pte4	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7pp02	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7p2x5	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7mvn6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7mv77	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i7cxx4	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y6c5	158	27	12.6	SubName: Full=Toxin;
i6xzg1	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xqs3	78	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
i6xbs7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x4l7	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rga2	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6r2a8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6r186	108	27	12.6	SubName: Full=Toxin;

i6r0e3	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6kn25	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6km18	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6jw54	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6jsl1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6j356	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6iyi4	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6igr0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6i423	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6hpx6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
i6fuc4	175	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
i6f7g1	128	27	12.6	SubName: Full=RTX toxin and Ca2+-binding protein;
i6at30	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6asm7	139	27	12.6	SubName: Full=Putative toxin-antitoxin system toxin componen...
i6arc2	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i5nu44	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4ynp3	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4wit1	114	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4k1f8	172	27	12.6	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i4ixu9	113	27	12.6	SubName: Full=Putative Transcriptional modulator of MazE/tox...
i4ib15	115	27	12.6	SubName: Full=Putative Transcriptional modulator of MazE/tox...
i4i613	129	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4i2s2	93	27	12.6	SubName: Full=Toxin higB-1;
i4hsb1	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hch6	113	27	12.6	SubName: Full=Putative Transcriptional modulator of MazE/tox...
i4h482	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gxs5	110	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4gem5	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g3s2	113	27	12.6	SubName: Full=Putative Transcriptional modulator of MazE/tox...
i4fgg3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zre5	151	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zjp9	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x599	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3r195	128	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ds40	174	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
i3byx6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bus8	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2zvh1	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2ws19	180	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2uaz9	180	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2tmh8	180	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2tcj8	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2qt35	127	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2qa88	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2nee8	109	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i2ncw6	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2n0g7	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2jvt0	190	27	12.6	SubName: Full=Ras-related c3 botulinum toxin substrate 1;
i2i082	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2f4j2	132	27	12.6	SubName: Full=Putative toxin-antitoxin system toxin componen...
i1xuc7	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
i0zrj3	172	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0xg56	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
i0xer3	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
i0tw91	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
i0rnc3	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0r4i6	152	27	12.6	SubName: Full=Zeta toxin domain protein;
i0kwf9	84	27	12.6	SubName: Full=Toxin antitoxin genome stability system,preven...

i0jw73	117	27	12.6	SubName: Full=Addiction module toxin, RelE/StbE;
i0je58	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
i0c5b3	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h9zuu4	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9eq53	192	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 3;
h9brr4	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h9ac96	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h8yz95	139	27	12.6	SubName: Full=Putative toxin-antitoxin system toxin componen...
h8yz61	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8yxp7	151	27	12.6	SubName: Full=Putative toxin-antitoxin system toxin componen...
h8m8z9	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h8lb86	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
h8jti8	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
h8i2p9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hyy7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8htg6	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hqm9	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hl51	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f3y9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f2n2	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewr4	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewl2	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7rsc8	194	27	12.6	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7gev7	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7g2v2	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h7edz4	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
h7c8i1	182	27	12.6	SubName: Full=Cytolethal distending toxin C;
h6sf32	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6sdi3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6sce7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rsw7	122	27	12.6	SubName: Full=Cytotoxic translational repressor of toxin-ant...
h6r1t4	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6nfn9	350	44	12.6	SubName: Full=RTX toxins and-related Ca2+-binding protein;
h6lss7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h6lfe9	136	27	12.6	SubName: Full=Putative toxin secretion/phage lysis holin;
h5ssp2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5ng89	122	27	12.6	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5lfl0	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
h5ktu1	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
h5ai76	200	27	12.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h5ad20	171	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4zbc3	171	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4ynb0	175	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4y878	175	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4xsk2	175	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4wy52	175	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
h4var8	128	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4u2z6	341	43	12.6	SubName: Full=Zonular occludens toxin family protein;
h4qta4	145	27	12.6	SubName: Full=Toxin B domain protein;
h4k2r4	141	27	12.6	SubName: Full=Zonular occludens toxin domain protein;
h4hfc8	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4h4q0	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ggv9	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h4gfi0	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h4g931	157	27	12.6	SubName: Full=Toxin, OB domain protein;
h4g1t0	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h4g0w6	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h4g0i6	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;

h4et03	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4eqi9	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h4en47	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4egy5	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h4edl9	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ed46	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4e8t6	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4e6m4	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ds00	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4d9g9	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4d384	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4d0x0	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4clq1	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4cl68	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ccq7	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4cc72	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4c000	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h4bpq5	238	30	12.6	SubName: Full=Toxin beta-grasp domain protein;
h4b2f9	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
h4b0z8	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4atj1	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ake8	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4ac74	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4a408	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h4a240	231	29	12.6	SubName: Full=Enterotoxin-like toxin;
h3zzu8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3zxb1	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3z1v8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3ysn7	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3ypd7	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3ye85	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3y092	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xz96	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xtx8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xtb6	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xjw1	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xif0	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xfi2	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3xee9	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3x2j6	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3txh8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h3rx37	238	30	12.6	SubName: Full=Beta-grasp domain toxin protein;
h3rvq8	203	27	12.6	SubName: Full=Beta-grasp domain toxin protein;
h3rl77	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h3mmy9	147	27	12.6	SubName: Full=TIGR02293 family putative toxin-antitoxin syst...
h1y6r2	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1ush7	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1ttv3	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1tra8	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1tik9	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1tfx3	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1tdt1	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1stf0	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h1ivl5	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1c982	160	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
h1asz7	137	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
h0uhu5	160	27	12.6	SubName: Full=Toxin secretion/phage lysis holin family prote...
h0i398	128	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h0hzg9	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0hec7	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0dj76	182	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h0dc34	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0d2b7	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0d0c5	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0cxm9	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0cwy3	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0cl38	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0bqy0	148	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0b1v4	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0aya1	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0all7	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0ajg4	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
h0aab8	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9zjf3	192	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9zjb7	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9y6a5	208	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
g9aiq7	154	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8v184	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
g8mrb5	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
g7zil4	125	27	12.6	SubName: Full=Putative transcriptional modulator of MazE/tox...
g7uu42	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7trg0	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
g7qtz1	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qt06	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qqw2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7h588	148	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gwl1	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gn77	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6c706	253	32	12.6	SubName: Full=Zeta toxin;
g5ns16	301	38	12.6	SubName: Full=Cytolethal distending toxin subunit B;
g4mbl7	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4hel0	153	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
g4fmv7	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dfd6	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dbb9	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4b6m0	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
g4auf9	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
g4api8	186	27	12.6	SubName: Full=Cytolethal distending toxin C;
g4a1r3	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
g3zht0	186	27	12.6	SubName: Full=Cytolethal distending toxin C;
g3zas8	186	27	12.6	SubName: Full=Cytolethal distending toxin C;
g3gxc8	148	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 3;
g2ypq3	104	27	12.6	SubName: Full=Similar to structural toxin protein RtxA;
g2uu90	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2usq1	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n4r0	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n029	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mzf9	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2h1n5	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2bzh6	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g2bzd2	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g1y5c0	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g0z028	203	27	12.6	SubName: Full=Enterotoxin-like toxin X;
g0z027	203	27	12.6	SubName: Full=Enterotoxin-like toxin X;
g0vwv8	147	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tq26	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

g0tje4	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tex5	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zh45	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9v4a9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9v357	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uvr2	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uuy8	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9rba2	177	27	12.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9r4e9	105	27	12.6	SubName: Full=CP4-6 prophage; antitoxin of the YkfI-YafW tox...
f9n078	145	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f9l5v6	154	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f9kz23	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f9kl63	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f9k446	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f8xdq5	120	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f8mab1	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m841	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2p8	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m0d0	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8b4x3	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8azk6	158	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8awy4	127	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wyl0	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrn5	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wnd0	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wk03	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wgp1	112	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7vja3	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7qx23	133	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f7pny5	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pgw0	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6fqv9	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5zzm2	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f5z1x3	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5z0b2	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5y199	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xhk6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5wj49	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f5w439	203	27	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f5lh33	181	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4xei0	182	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4xa12	183	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f4vzx9	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4vj81	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4vf75	120	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4v770	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4ut91	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4ueb5	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4udv8	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4u2g3	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4tfy9	120	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4t803	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4t4q0	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4t3a7	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4sn83	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4gvv3	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4c4r6	124	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4bxi5	84	27	12.6	SubName: Full=Addiction module toxin, RelE/StbE family;

f4b8h7	141	27	12.6	SubName: Full=VapC-type toxin;
f3yxj0	115	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f3tn09	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f3ta38	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f3t4e8	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein;
f3se39	129	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3q2i3	160	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3pq58	91	27	12.6	SubName: Full=Addiction module toxin, Txe/YoeB family;
f3ns02	89	27	12.6	SubName: Full=Addiction module toxin/plasmid stabilization s...
f3itv8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3gcp8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3fm04	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vb10	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v7h1	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v574	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2qw43	133	27	12.6	SubName: Full=Toxin resistant protein 27;
f2gh13	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ggn2	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ge41	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2g1k5	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f2aev4	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1tei4	134	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
f1la22	192	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
f0yv05	111	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f0spm5	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0n6d3	115	27	12.6	SubName: Full=Putative plasmid toxin protein PemK;
f0msh6	115	27	12.6	SubName: Full=Putative plasmid toxin protein PemK;
f0lge0	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0jy12	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f0j376	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0j2w3	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0h1t8	132	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
f0afd8	115	27	12.6	SubName: Full=Putative plasmid toxin protein PemK;
f0a0l1	115	27	12.6	SubName: Full=Putative plasmid toxin protein PemK;
e9zly0	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zk73	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zj07	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9w9n7	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9uqy4	208	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e9uqm1	162	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9uj83	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9u8w1	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9tzq4	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9tur6	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9th45	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e8xld0	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e8tn01	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8n8b7	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7s9e2	261	33	12.6	SubName: Full=Zeta toxin; SubName: Full=Zeta-toxin;
e7n9w2	125	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7n2g7	129	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e7mtw7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e7mp02	176	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e7mes0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e7j6h6	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e6viz9	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6n5q1	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6iq39	190	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

e6h360	155	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6grk0	155	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gns4	125	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6ewf8	125	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6bfc6	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6amt0	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6a3j2	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5zzf6	160	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e5zr08	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5tta9	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e5tmh7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e5taw0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e5ray2	238	30	12.6	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e5qtf3	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e5clh0	201	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e5awa1	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4jf39	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
e4jcu9	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
e4iwm5	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
e4il33	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
e4i6q7	134	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
e3itr2	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3h145	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3d4h3	93	27	12.6	SubName: Full=Plasmid maintenance system killer protein; Tox...
e3cj37	152	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e2wie3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wh74	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wef9	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2web3	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w808	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w6g0	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w590	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2h8	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vwu1	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vv83	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vtt8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vr76	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vnm9	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vix1	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vhr7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vf28	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vb62	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v9k8	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v8g2	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5l9	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uze2	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uy93	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uxl2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uue1	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2unq2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2um43	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ul01	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ui95	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ud18	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uc46	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uap5	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u9g9	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u1e6	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

e2tz75	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ty32	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tvb8	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tp92	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tmn8	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tli3	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tin2	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tec8	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tbt1	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ta93	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t961	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1tq15	364	46	12.6	SubName: Full=Possible toxin regulator;
e1ldi5	166	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1l1b8	101	27	12.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e1l040	180	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1j0q0	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1il25	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1ii77	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hx16	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1hr06	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1hk45	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1hae0	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h962	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h6g1	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h6b7	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1esl5	190	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1e598	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e1civ0	190	27	12.6	SubName: Full=Cytolethal distending toxin C;
e0p2w6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e0nst8	145	27	12.6	SubName: Full=Toxin secretion/phage lysis holin subfamily;
e0mlt6	153	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0hc58	190	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0h0f9	190	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0gm11	155	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0g171	146	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9yai6	83	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
d9y8z1	171	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d9y838	117	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d9xvj9	165	27	12.6	SubName: Full=RelE/StbE family addiction module toxin;
d9wtz2	286	36	12.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wkg7	127	27	12.6	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d9wfn1	123	27	12.6	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d9wbu2	277	35	12.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d8urs8	145	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d8unj5	180	27	12.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d8p969	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8iim5	373	47	12.6	SubName: Full=Possible toxin regulator;
d8fg55	94	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8fd85	112	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8fb87	126	27	12.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d8f1b7	114	27	12.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d8eyz5	116	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component family...
d8e4x0	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8ccs4	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8by82	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8bs75	341	43	12.6	SubName: Full=Zonula occludens toxin;
d8bkg1	163	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8bdn2	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

d8b8d9	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8atb2	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8a8l2	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7zzd0	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7zak9	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7ytc0	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7ygw2	162	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7ydg2	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7xz71	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7xrs3	138	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7x2l1	200	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7vd09	364	46	12.6	SubName: Full=Possible toxin regulator;
d7nfj7	145	27	12.6	SubName: Full=Toxin secretion/phage lysis holin subfamily;
d7ied8	293	37	12.6	SubName: Full=Insecticidal toxin complex protein TccC6;
d7hqs0	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
d7gqp7	142	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
d7eup2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7es65	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7er08	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cx16	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ak67	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6u9f0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6t5s2	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6stc7	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6sik7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6lyw6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6kqs4	153	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6kkb0	153	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6kbz7	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6j1h3	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6hhw5	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6h0x0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d6fyt7	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fyg2	102	27	12.6	SubName: Full=Toxin;
d6fws2	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fvk3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fjb2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zj65	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zih3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zg00	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z672	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z455	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z3e8	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yuv7	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ytq9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yrk0	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ynj6	126	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yke0	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ygf4	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yf68	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y6h2	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y5d2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y3l8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xwj0	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xw36	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xtk4	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ul57	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ss85	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d5p7v0	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5j9p6	88	27	12.6	SubName: Full=Non-conventional three finger toxin isoform 2;...
d4x497	163	27	12.6	SubName: Full=GNAT family toxin-antitoxin system;
d4w8x4	139	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
d4u840	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d4tvv7	156	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4rxu3	231	29	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4fbz7	132	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component domain...
d4c4c0	132	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4bv76	188	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d4bus8	198	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4bnu6	137	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3rsg6	148	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3rmm9	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pne5	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3ll66	170	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d3i3m1	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3ctu4	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2ut21	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2mjv3	125	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2gsf7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2gha8	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2ga77	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2g1d0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2fwa6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2fe68	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d2f826	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d1yqd0	153	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1yhl6	261	33	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1ty32	152	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1qy94	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d1qib4	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d1qcl3	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d1q069	123	27	12.6	SubName: Full=Bro family toxin-antitoxin system;
d1pfw4	160	27	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1pfm0	139	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d1bwd8	147	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bu01	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0zhz0	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d0yru8	171	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0wgr9	97	27	12.6	SubName: Full=Toxin-antitoxin system protein;
d0w9j3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0mfb2	147	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0k603	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d0frn0	107	27	12.6	SubName: Full=CcdB-like toxin protein;
d0dc38	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9r3b9	186	27	12.6	SubName: Full=Cytolethal distending toxin protein C;
c9qrf1	105	27	12.6	SubName: Full=CP4-6 prophage antitoxin of the YkfI-YafW toxi...
c9nxu3	203	27	12.6	SubName: Full=Cholera toxin transcriptional activator;
c9mu18	124	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c9l4b6	169	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c9kjv6	143	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9k1m7	262	33	12.6	SubName: Full=Putative hydrolase for ACT-toxin biosynthesis;...
c8ndh8	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8n1g6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8mx50	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8ml32	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8mig8	238	30	12.6	SubName: Full=Toxin beta-grasp domain-containing protein;

c8m890	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8m0f7	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8lre2	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8lh92	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8lcx9	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8l4c6	238	30	12.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l2t3	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8at05	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8aj72	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8a513	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c7zxy6	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c7nnb6	129	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7g7i6	187	27	12.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c7g7a6	254	32	12.6	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c6yl44	165	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
c6ehr4	138	27	12.6	SubName: Full=Antitoxin of the HigB-HigA toxin-antitoxin sys...
c6dsn2	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dqa9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dmf0	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6cx20	156	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
c5q3a0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c5f0g3	223	28	12.6	SubName: Full=Cytolethal distending toxin subunit A;
c5c5v2	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5an56	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4zta2	105	27	12.6	SubName: Full=CP4-6 prophage; antitoxin of the YkfI-YafW tox...
c4xtp2	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4hg10	341	43	12.6	SubName: Full=Zona occludens toxin;
c4h6e7	341	43	12.6	SubName: Full=Zona occludens toxin;
c3thk0	155	27	12.6	SubName: Full=Putative toxin;
c3lsf1	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
c3l4w0	135	27	12.6	SubName: Full=Anthrax toxin expression trans-acting positive...
c2d4w6	325	41	12.6	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
c1fpx3	114	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
c1app9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1anj7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1ajr6	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1af15	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0xm23	325	41	12.6	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
c0wtv2	325	41	12.6	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
b8hzk3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8fad0	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7xlz2	325	41	12.6	SubName: Full=Dermonecrotic toxin;
b7mmh4	122	27	12.6	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b6sd40	293	37	12.6	SubName: Full=Cytolethal distending toxin subunit B;
b6ecz3	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd15	93	27	12.6	RecName: Full=U12-lycotoxin-Ls1c; AltName: Full=Toxin-like s...
b6c250	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5nvi5	105	27	12.6	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
b5n6a9	132	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5fbz3	293	37	12.6	SubName: Full=Toxin transcriptional activator ToxR;
b3yhl6	105	27	12.6	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
b3qew5	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3ph12	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3e9d9	138	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2n4h5	181	27	12.6	SubName: Full=Cytolethal distending toxin subunit C;
b2aji8	125	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2aig9	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1z9s3	108	27	12.6	SubName: Full=RelE-like cytotoxic translational repressor of...

b1xdy8	105	27	12.6	SubName: Full=CP4-6 prophage; antitoxin of the YkfI-YafW tox...
b1mu63	142	27	12.6	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b1k7w4	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1fie3	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1b8u7	138	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
b1ah79	86	27	12.6	SubName: Full=Ras-related C3 botulinum toxin substrate 2; Su...
b0paj9	163	27	12.6	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
b0nar3	172	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
b0jsh1	159	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0jqb5	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0cf80	135	27	12.6	SubName: Full=RTX toxin acyltransferase family protein;
a9vs48	141	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
a9kpm8	137	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
a9h385	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9d136	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9b2d1	142	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
a9a0z1	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8z4j0	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
a8tz23	141	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8luk3	146	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8ghr4	128	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bs84	143	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bqv6	150	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ayt7	158	27	12.6	SubName: Full=Toxin secretion/phage lysis holin;
a7a2s4	183	27	12.6	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
a6u2m8	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
a6u0y5	238	30	12.6	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a5wqf4	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wnv9	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wmp7	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5vg76	136	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5vfd9	130	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5v9q1	124	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5ut70	88	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a5upr8	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u5p5	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u402	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u2r8	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5itt4	166	27	12.6	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
a5is51	238	30	12.6	SubName: Full=Toxin, beta-grasp domain protein; Flags: Precu...
a5g459	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5f4s3	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
a4yzb2	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4x074	135	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4tbb5	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4knx2	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kic3	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kha4	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4f275	189	27	12.6	SubName: Full=Cytolethal distending toxin C;
a4f268	123	27	12.6	SubName: Full=Cytolethal distending toxin B;
a4bpb6	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z4j3	112	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a3z429	147	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3xer5	133	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3jmu5	197	27	12.6	SubName: Full=Putative toxin-activating protein;
a3iwl8	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3gwk0	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM; SubName:...
a3gkl4	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;

a3etc1	140	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3cui8	111	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a2vkq5	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vj90	139	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vi73	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfs2	131	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1vna5	142	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1u7v6	120	27	12.6	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a1tjp6	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1klp4	137	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kiz1	134	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kf61	145	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ek62	166	27	12.6	SubName: Full=Cholera toxin secretion protein EpsM;
a1bcn4	132	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1b3s3	144	27	12.6	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r0rmw9	271	34	12.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
q81qd6	248	31	12.5	RecName: Full=Stage II sporulation protein SA; AltName: Full...
q7vsx5	273	34	12.5	RecName: Full=Type IV secretion system protein PtlF; AltName...
q5mq78	265	33	12.5	SubName: Full=Beta2 toxin;
q5mq75	265	33	12.5	SubName: Full=Beta2 toxin;
q03v59	352	44	12.5	SubName: Full=Predicted membrane protein, putative toxin reg...
q03515	327	41	12.5	RecName: Full=GPI-linked NAD(P)(+)--arginine ADP-ribosyltran...
n4rs50	304	38	12.5	SubName: Full=Zeta toxin family protein;
n4jlx6	304	38	12.5	SubName: Full=Zeta toxin family protein;
m7sz99	288	36	12.5	SubName: Full=Putative toxin biosynthesis protein;
l7fd04	273	34	12.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7f237	329	41	12.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l4ylt3	336	42	12.5	SubName: Full=Phage zona occludens toxin;
l4q8r7	336	42	12.5	SubName: Full=Phage zona occludens toxin;
l1krz0	311	39	12.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i7l927	280	35	12.5	SubName: Full=Toxin secretion/phage lysis holin;
i2rhk1	232	29	12.5	SubName: Full=Zeta toxin;
h6p9v0	312	39	12.5	SubName: Full=Exfoliative toxin A;
h4h4u2	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4eua1	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4eda4	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4e8z6	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4d104	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4cll7	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4cbt7	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4b531	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h4a242	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
h3rvw7	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
g8v0n0	232	29	12.5	SubName: Full=Enterotoxin-like toxin;
g7vkj6	352	44	12.5	SubName: Full=Membrane protein, putative toxin regulator;
g4pdn9	335	42	12.5	SubName: Full=Exfoliative toxin; EC=3.4.21.-;
f9nwe3	232	29	12.5	SubName: Full=Diphtheria toxin repressor;
f7nbg0	265	33	12.5	SubName: Full=RTX toxin Ca2+-binding protein;
f4xe31	255	32	12.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f4fp21	232	29	12.5	SubName: Full=Staphylococcal enterotoxin-like toxin;
f3ziw9	295	37	12.5	SubName: Full=Putative xre family toxin-antitoxin system, an...
f1zhh7	232	29	12.5	SubName: Full=Zeta toxin family protein;
e9yna4	232	29	12.5	SubName: Full=Zeta toxin protein;
e2cst8	416	52	12.5	SubName: Full=RTX-III toxin determinant A from serotype 2;
e0mrs3	296	37	12.5	SubName: Full=RTX toxins and related Ca2+-binding protein;
d9xjp5	304	38	12.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xjb3	273	34	12.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wdz4	288	36	12.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...

d8eet3	232	29	12.5	SubName: Full=Zeta toxin;
d6k5m5	280	35	12.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5l5r4	224	28	12.5	SubName: Full=Toxin co-regulated pilus;
d4l0a1	353	44	12.5	SubName: Full=Predicted membrane protein, putative toxin reg...
d4kji1	353	44	12.5	SubName: Full=Predicted membrane protein, putative toxin reg...
c9lu51	265	33	12.5	SubName: Full=PemK family protein; SubName: Full=Toxin-antit...
c5r7z0	360	45	12.5	SubName: Full=Membrane protein, toxin regulator;
c5h0f2	224	28	12.5	SubName: Full=Toxin co-regulated pilus A variant;
c4tiy2	273	34	12.5	SubName: Full=Cytolethal distending toxin B;
c2l143	361	45	12.5	SubName: Full=Toxin regulator;
c2ki78	352	44	12.5	SubName: Full=Membrane protein, toxin regulator;
c2khn0	376	47	12.5	SubName: Full=Membrane protein, toxin regulator;
c0yyk0	393	49	12.5	SubName: Full=Membrane protein toxin regulator family protei...
b8maj2	248	31	12.5	SubName: Full=Toxin biosynthesis ketoreductase, putative;
a6qe86	232	29	12.5	SubName: Full=Staphylococcal enterotoxin-like toxin;
a3cq47	305	38	12.5	SubName: Full=Exfoliative toxin, putative;
r1yhb2	226	28	12.4	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
q7vsx6	233	29	12.4	RecName: Full=Type IV secretion system protein PtlE; AltName...
q5r231	226	28	12.4	RecName: Full=Hemolytic toxin Avt-1; AltName: Full=Avt-I; Fl...
q04470	259	32	12.4	RecName: Full=Type-2Aa cytolytic delta-endotoxin; AltName: F...
p0c6q5	338	42	12.4	RecName: Full=Toxin coregulated pilus biosynthesis protein F...
n4v4j5	388	48	12.4	SubName: Full=Putative HC-toxin efflux carrier TOXA;
m7gg76	338	42	12.4	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m1y1g9	348	43	12.4	SubName: Full=RTX toxins and related Ca2+-binding proteins;
l9lsx6	250	31	12.4	SubName: Full=Zeta toxin;
l2jm55	258	32	12.4	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l1kpn4	291	36	12.4	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l0j758	298	37	12.4	SubName: Full=Putative toxin-antitoxin system toxin componen...
i4ipd4	241	30	12.4	SubName: Full=Putative Cytolethal distending toxin subunit B...
i4auc1	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
i3qy03	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
h8lte6	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
h7d048	226	28	12.4	SubName: Full=Beta2-toxin;
h6m2x9	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
h5alt9	290	36	12.4	SubName: Full=Zeta toxin family protein;
h4dz25	241	30	12.4	SubName: Full=Beta-grasp domain toxin protein;
h2fmh4	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
h1ski9	250	31	12.4	SubName: Full=Toxin, beta-grasp domain protein;
h0ceb0	250	31	12.4	SubName: Full=Toxin, beta-grasp domain protein;
h0cbb8	250	31	12.4	SubName: Full=Toxin, beta-grasp domain protein;
h0avl6	250	31	12.4	SubName: Full=Toxin, beta-grasp domain protein;
g9y6n3	283	35	12.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
g7tzj1	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
g4r2p1	250	31	12.4	SubName: Full=Clostridial binary toxin A family protein;
g4qzr8	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
g4qqq0	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
g0uee9	355	44	12.4	SubName: Full=Membrane protein, toxin regulator;
g0ics9	299	37	12.4	SubName: Full=Exfoliative toxin;
g0i491	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
f5w9j1	250	31	12.4	SubName: Full=Toxin, beta-grasp domain protein;
e3fbw3	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
e3b769	226	28	12.4	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e2xjz9	258	32	12.4	SubName: Full=Type I toxin efflux ATP-binding protein; EC=3....
e2mu76	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
e2cnk3	258	32	12.4	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d9xqk8	275	34	12.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wpy5	283	35	12.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9qaw1	226	28	12.4	SubName: Full=Diphtheria toxin repressor;

d9q8v1	226	28	12.4	SubName: Full=Diphtheria toxin repressor;
d6jza3	282	35	12.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d4brt7	259	32	12.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d0h643	338	42	12.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c6gt38	258	32	12.4	SubName: Full=Zeta-toxin;
c6gn68	258	32	12.4	SubName: Full=Zeta-toxin;
c5rb87	362	45	12.4	SubName: Full=Possible toxin regulator;
c3xie2	267	33	12.4	SubName: Full=Cytolethal distending toxin b;
c2fc10	347	43	12.4	SubName: Full=Membrane protein, toxin regulator;
b6qdj2	249	31	12.4	SubName: Full=Toxin biosynthesis ketoreductase, putative;
a5f383	338	42	12.4	RecName: Full=Toxin coregulated pilus biosynthesis protein F...
r0y5r2	454	56	12.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0szn3	454	56	12.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
n4ptn8	308	38	12.3	SubName: Full=Zeta toxin family protein;
n4pph4	308	38	12.3	SubName: Full=Zeta toxin family protein;
n4ipa5	308	38	12.3	SubName: Full=Zeta toxin family protein;
n4b0e7	308	38	12.3	SubName: Full=Zeta toxin family protein;
n3zy71	308	38	12.3	SubName: Full=Zeta toxin family protein;
n3tvs8	308	38	12.3	SubName: Full=Zeta toxin family protein;
m5j0v2	350	43	12.3	SubName: Full=Zonular occludens toxin;
l7euv1	236	29	12.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
l3lpe3	341	42	12.3	SubName: Full=Phage zona occludens toxin;
l0rmc7	292	36	12.3	SubName: Full=Toxin subunit S1;
k1ydm3	318	39	12.3	SubName: Full=Zonular occludens toxin;
j9fys8	253	31	12.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j7udl3	243	30	12.3	SubName: Full=Zeta toxin;
i2nj95	235	29	12.3	SubName: Full=Zeta toxin;
h8f7z5	244	30	12.3	SubName: Full=RTX toxin transporter, ATP-binding protein;
h5xmm8	235	29	12.3	SubName: Full=Zeta toxin;
h5dy30	227	28	12.3	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h1qxd8	293	36	12.3	SubName: Full=Toxin transcriptional activator ToxR;
h1m048	252	31	12.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
h0cq85	227	28	12.3	SubName: Full=Toxin, beta-grasp domain protein;
f9kwt9	219	27	12.3	SubName: Full=Toxin, beta-grasp domain protein;
f5x6y6	260	32	12.3	SubName: Full=PezT Zeta toxin;
f3xtk2	399	49	12.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
e7b8i9	292	36	12.3	SubName: Full=Toxin subunit S1;
e4iu95	261	32	12.3	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3r8x9	261	32	12.3	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d9wia0	308	38	12.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wca7	285	35	12.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5ry79	349	43	12.3	SubName: Full=Toxin regulator;
d5q344	349	43	12.3	SubName: Full=Toxin regulator;
d2una1	326	40	12.3	SubName: Full=Leukocidin/hemolysin toxin family protein;
d0h262	332	41	12.3	SubName: Full=Cytolysin and hemolysin HlyA Pore-forming toxi...
c2kz74	260	32	12.3	SubName: Full=Zeta toxin;
b8m887	326	40	12.3	SubName: Full=Toxin biosynthesis protein Tri7-like , putativ...
b5gja6	284	35	12.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
r1c9u7	345	42	12.2	SubName: Full=Putative membrane protein, putative toxin regu...
q48jb2	288	35	12.2	SubName: Full=Insecticidal toxin complex protein, putative;
q45723	263	32	12.2	RecName: Full=Type-2Ba cytolytic delta-endotoxin; AltName: F...
q0hji0	238	29	12.2	SubName: Full=Zeta toxin family protein;
q03v93	376	46	12.2	SubName: Full=Predicted membrane protein, putative toxin reg...
n6r5t1	311	38	12.2	SubName: Full=Exfoliative toxin A;
n6jv02	311	38	12.2	SubName: Full=Exfoliative toxin A;
n6ddi1	311	38	12.2	SubName: Full=Exfoliative toxin A;
n5rt68	311	38	12.2	SubName: Full=Exfoliative toxin A;
n1rkz6	263	32	12.2	SubName: Full=HC-toxin synthetase;

n1jdg0	263	32	12.2	SubName: Full=Killer toxin sensitivity protein;
m5b633	229	28	12.2	SubName: Full=Toxin-antitoxin system, toxin component;
l7fb52	286	35	12.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1p4w9	329	40	12.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l0wb11	295	36	12.2	SubName: Full=Zonular occludens toxin;
k9mea5	319	39	12.2	SubName: Full=Pore-forming toxin NetB;
j0ezp9	238	29	12.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i0scs6	262	32	12.2	SubName: Full=Zeta toxin;
h1x9n7	311	38	12.2	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
h1tr68	279	34	12.2	SubName: Full=Toxin, beta-grasp domain protein;
g7vk82	376	46	12.2	SubName: Full=Membrane protein, putative toxin regulator;
g5bsr4	237	29	12.2	SubName: Full=Anthrax toxin receptor-like protein;
g0zij4	262	32	12.2	SubName: Full=Putative toxin;
f9kwt7	254	31	12.2	SubName: Full=Toxin, beta-grasp domain protein;
f4fqz0	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
f4fif0	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
e7hia6	238	29	12.2	SubName: Full=Toxin B domain protein;
e6b5p5	320	39	12.2	SubName: Full=Toxin B domain protein;
e5thn3	311	38	12.2	SubName: Full=Exfoliative toxin A;
d9xjb4	287	35	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wsa0	288	35	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wc06	270	33	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7j8c0	336	41	12.2	SubName: Full=HipA family toxin-antitoxin system;
d6lzm2	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
d6ka78	288	35	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6k5i8	286	35	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d4wt87	336	41	12.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4wbh1	336	41	12.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4vhn9	336	41	12.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4s305	361	44	12.2	SubName: Full=Putative toxin regulator PfoR;
d2utv8	311	38	12.2	SubName: Full=Putative exfoliative toxin;
d2up11	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
d2u4e3	271	33	12.2	SubName: Full=Insecticidal toxin complex protein;
d2gtc9	311	38	12.2	SubName: Full=Putative exfoliative toxin;
d2ghu5	311	38	12.2	SubName: Full=Exfoliative toxin A;
d2fns5	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
d2feq2	311	38	12.2	SubName: Full=Exfoliative toxin A/B;
d1p0c2	344	42	12.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c9l9c8	376	46	12.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
c7g8r8	229	28	12.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
c4tiy1	237	29	12.2	SubName: Full=Cytolethal distending toxin A;
b5gj56	279	34	12.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
a9iea5	222	27	12.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3eid5	335	41	12.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
r4fg15	116	26	12.1	SubName: Full=Toxin-antitoxin addiction module toxin compone...
r3kl94	134	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
r3hzz0	134	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
r2m8h4	137	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
r1w193	134	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
r0vw49	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
r0vei0	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
r0ug59	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
r0uat4	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
r0tqf9	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
r0d1d8	163	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
q9y1u3	85	26	12.1	RecName: Full=Toxin BmKITc; Short=BmK ITc; Flags: Precursor;...
q9rfy6	231	28	12.1	RecName: Full=Cytolethal distending toxin subunit A; Short=C...
q9jy35	152	26	12.1	SubName: Full=Putative toxin-activating protein;

q9hhy6	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9fdt4	306	37	12.1	SubName: Full=Exfoliative toxin A;
q92ls3	153	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8zzx4	125	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8gnj4	272	33	12.1	SubName: Full=Exfoliative toxin ExhD;
q8gf72	177	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q83s31	155	26	12.1	SubName: Full=Putative toxin;
q82wv4	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q82bl0	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7z1k9	87	26	12.1	RecName: Full=Toxin Cll3; Flags: Precursor;
q7x7u5	338	41	12.1	SubName: Full=Os07g0601000 protein; SubName: Full=Putative N...
q7wdu6	152	26	12.1	SubName: Full=Pertussis toxin subunit 4;
q7wah5	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7ty97	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7tx31	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7tvw8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nk02	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nf78	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nd93	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7cqd4	240	29	12.1	RecName: Full=Guanine nucleotide exchange factor sopE2; AltN...
q7bej1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q746b3	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6xvu6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q6n3t5	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6b4t3	86	26	12.1	RecName: Full=U2-sicaritoxin-Li1a; Short=U2-SCRTX-Li1a; AltN...
q5smb0	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5skz2	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5iqz1	181	26	12.1	SubName: Full=Cytolethal distending toxin C;
q5fqv2	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5f1k4	189	26	12.1	SubName: Full=Cytolethal distending toxin C;
q5dz59	348	42	12.1	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
q58ar3	123	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q53w00	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q50625	134	26	12.1	RecName: Full=Probable ribonuclease VapC40; Short=Probable R...
q4qlw0	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q46557	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q45390	102	26	12.1	RecName: Full=Type IV secretion system protein PtlA; AltName...
q39pq0	90	26	12.1	SubName: Full=Toxin, RelE family;
q323x7	155	26	12.1	SubName: Full=Putative toxin;
q2k209	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2fra1	111	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q2fq70	114	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q2f9t3	100	26	12.1	SubName: Full=Toxin of toxin-antitoxin stability system;
q1nxa2	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1njg3	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1m8r2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1m527	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1lg50	163	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1irv1	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1bdu1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0yta9	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0t6e5	155	26	12.1	SubName: Full=Putative toxin;
q0h0a4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q0gy43	91	26	12.1	RecName: Full=Potassium channel toxin TdiKIK; Short=TdKIK; F...
q0b7x6	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q07q46	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q06259	126	26	12.1	RecName: Full=Toxin doc; AltName: Full=Death on curing prote...
q04gu1	321	39	12.1	SubName: Full=Predicted membrane protein, putative toxin reg...

q036g8	347	42	12.1	SubName: Full=Predicted membrane protein, putative toxin reg...
q01v53	147	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q01qw9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p71363	132	26	12.1	RecName: Full=Probable ribonuclease VapC2; Short=Probable RN...
p67861	144	26	12.1	RecName: Full=Snake venom vascular endothelial growth factor...
p56646	65	26	12.1	RecName: Full=Toxin CsEM1; Short=CsE M1; AltName: Full=CsEII...
p01480	84	26	12.1	RecName: Full=Alpha-mammal toxin Aah3; AltName: Full=AaH III...
o69665	145	26	12.1	RecName: Full=Probable ribonuclease VapC48; Short=Probable R...
o53663	145	26	12.1	RecName: Full=Probable ribonuclease VapC24; Short=Probable R...
o53330	144	26	12.1	RecName: Full=Probable ribonuclease VapC45; Short=Probable R...
o06662	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
n9zz93	163	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
n9x9n6	160	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
n6x4i2	192	26	12.1	SubName: Full=PIN family toxin-antitoxin system;
n6k6j5	315	38	12.1	SubName: Full=Exfoliative toxin A;
n5zfv3	315	38	12.1	SubName: Full=Exfoliative toxin A;
n4lya1	126	26	12.1	SubName: Full=Toxin doc;
n3aiq7	126	26	12.1	SubName: Full=Toxin doc;
n2rba2	176	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
n2r0r8	206	26	12.1	SubName: Full=Toxin coregulated pilin;
n2ql15	176	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
n2k6t1	176	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
n2h4c5	126	26	12.1	SubName: Full=Toxin doc;
n2fsm2	176	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
n2fqz6	206	26	12.1	SubName: Full=Toxin coregulated pilin;
n2a7q8	135	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
n1xba0	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
n1w3f9	145	26	12.1	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
n1uv16	173	26	12.1	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
n1ms07	137	26	12.1	SubName: Full=VapC toxin protein;
n1lkh2	205	26	12.1	SubName: Full=Putative toxin component near putative ESAT-re...
n0a4v5	196	26	12.1	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m9h322	126	26	12.1	SubName: Full=Toxin doc;
m9e0e1	206	26	12.1	SubName: Full=Toxin coregulated pilin;
m8q441	126	26	12.1	SubName: Full=Toxin doc;
m8kr56	126	26	12.1	SubName: Full=Toxin doc;
m8kk52	126	26	12.1	SubName: Full=Toxin doc;
m8kah5	126	26	12.1	SubName: Full=Toxin doc;
m7v421	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7twb6	110	26	12.1	SubName: Full=Putative structural toxin protein;
m7rc39	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
m7nf01	92	26	12.1	SubName: Full=Toxin higB-1;
m7ljp3	165	26	12.1	SubName: Full=Cholera toxin secretion protein EpsM;
m7j636	331	40	12.1	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m6x721	143	26	12.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
m5mql9	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5miu3	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5mhi0	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5maj3	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5lrd8	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5ll62	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5le55	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5l4s2	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5kn35	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5kmb8	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5kce1	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5k7d7	203	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5jf04	116	26	12.1	SubName: Full=Toxin-antitoxin system, mRNA interferase toxin...

m4s6b3	211	26	12.1	SubName: Full=Putative toxin secretion ABC transporter ATP-b...
m3ssi9	99	26	12.1	SubName: Full=Toxin higB-1;
m3fj13	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2pe48	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m2p6x1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m2n3j7	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m1z5n7	152	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF ...
m1x9y8	59	26	12.1	SubName: Full=Putative type I toxin;
m1qu74	141	26	12.1	SubName: Full=Holin, toxin secretion/phage lysis;
m1j1l9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1imq6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1hyn1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0n368	163	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mtb0	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0mih5	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0juu2	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0iaw3	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0i378	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0h763	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0gy37	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fz50	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0f2x4	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0e9b3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dzl0	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dum6	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dcq1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0d1v6	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bhj6	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bg94	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bdk3	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0aav9	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0a1z8	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9zri2	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9yv49	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9whb6	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9wbu9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9hue6	126	26	12.1	SubName: Full=Toxin doc;
l8vwx7	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8v942	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8sqs2	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8qjj2	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
l8qg80	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
l8q897	179	26	12.1	SubName: Full=Toxin, OB domain protein;
l8nmw4	149	26	12.1	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
l8ngr9	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8n4e0	157	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8mrk2	117	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
l8l6r3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8kzu2	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8j6u3	154	26	12.1	SubName: Full=Toxin secretion transporter, putative;
l8bvr3	126	26	12.1	SubName: Full=Death on curing protein, Doc toxin;
l7w2g4	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7w1k3	133	26	12.1	SubName: Full=Death on curing protein, Doc toxin;
l7gpb6	115	26	12.1	SubName: Full=Toxin ChpB;
l7fj71	84	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7fd83	142	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l7fbi9	127	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
l7f037	128	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...

l7ex53	93	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
l5ut49	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5smp8	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5smd3	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5s5l2	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5s5h7	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5rua6	182	26	12.1	SubName: Full=Zonular occludens toxin family protein;
l5r356	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5qq78	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5p3b8	152	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
l5ige1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5hwt0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5gdn6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5da12	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5cqd5	126	26	12.1	SubName: Full=Toxin doc;
l5clh2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4zrd7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4p6z6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4nlh2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4mte4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4mfm7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4lpf6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4hlt1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4gw05	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4g0c6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4flb5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4fbg1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4bth5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4auu4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3ush4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3u9e4	126	26	12.1	SubName: Full=Toxin doc;
l2wbh6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2vyk1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2kwp4	137	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
l2g8n3	111	26	12.1	SubName: Full=Structural toxin protein;
l2eek2	163	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l2e843	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l2e2t8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2diy4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2d6x0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2ci77	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2ccd2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2c1q0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2bqc1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2b3g9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2ahz4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2a818	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1zvd8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1zv69	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1ypt0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xqb0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xms2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xgt1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xec6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1whv8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1w9z5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1w941	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1w2b6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

l1v851	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1qi04	170	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
l1p851	149	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
l1n438	193	26	12.1	SubName: Full=Cytolethal distending toxin A/C family protein...
l1k7n3	88	26	12.1	SubName: Full=Death on curing protein, Doc toxin;
l0r0b0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qzu1	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qww9	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qsn2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qqy1	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qj76	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qbc5	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qbb0	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q842	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q596	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q2v2	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q2i3	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pzr1	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pzl3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pwg6	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0psb8	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0prz2	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pre4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nzm0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nz81	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nvs1	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0npm5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nmp7	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nhu7	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0llg8	125	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0knn7	129	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kh83	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0h040	140	26	12.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
l0ahb6	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0acd0	110	26	12.1	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9zmq8	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zi45	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9z5l5	120	26	12.1	SubName: Full=MazE/toxin transcriptional modulator MazF;
k9y7u1	116	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9wyt7	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vp34	121	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9v9x8	147	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ubq3	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9u070	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9tbl3	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qu46	140	26	12.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9qqz9	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qqh3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qin5	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p392	124	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ey31	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9eeq7	152	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
k9b3r8	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7sha5	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7rzn5	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7rya8	111	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
k7dnx4	192	26	12.1	SubName: Full=Ras-related C3 botulinum toxin substrate 2 (Rh...
k6xai3	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

k6eqd8	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5zz73	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5yus5	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5msn9	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k4zef6	150	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
k4xsh0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4xk55	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4xby2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4wy46	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4wd45	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
k4vyw4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4vyu0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4vr55	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4vpe1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4u6t0	152	26	12.1	SubName: Full=Pertussis toxin subunit 4;
k4u3b8	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4tll3	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4t442	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4qfr9	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4ll59	166	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k3tfk8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k3qsk3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k3gp00	126	26	12.1	SubName: Full=Toxin doc;
k2vzm0	224	27	12.1	SubName: Full=Toxin coregulated pilin;
k2un46	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k2lqe3	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2b8z2	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1zhu0	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1zap3	129	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1y8r3	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1ugn9	131	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
k1tmq9	97	26	12.1	SubName: Full=Addiction module toxin, Txe/YoeB; EC=3.1.-.-;
k1b1v2	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0q3k4	129	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0pfd5	153	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0p5r0	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0mxh1	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0mbi1	102	26	12.1	SubName: Full=Pertussis toxin transport protein;
k0ifk8	104	26	12.1	SubName: Full=CcdB-like protein toxin protein;
k0dyp8	123	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0bsf1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k0akk8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j9zil5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j9w178	142	26	12.1	SubName: Full=Membrane protein, putative toxin regulator;
j9jek1	338	41	12.1	SubName: Full=Putative zeta toxin protein;
j8y4t1	152	26	12.1	SubName: Full=Putative toxin-activating protein;
j8wb67	152	26	12.1	SubName: Full=Putative toxin-activating protein;
j8u468	152	26	12.1	SubName: Full=Putative toxin-activating protein;
j8edv9	165	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
j8dcc2	165	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
j8cwi9	165	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
j7y6l5	141	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
j7rkj3	102	26	12.1	SubName: Full=Pertussis toxin transport protein;
j7qfh7	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7l7w3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j6uce1	96	26	12.1	SubName: Full=HigB toxin protein;
j6uc00	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j6jar8	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

j5x4n8	136	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
j5uj49	160	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j5pmz7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5mgj8	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5his5	174	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
j5gu61	140	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
j5cul2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4x4d7	107	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
j3g400	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3g379	161	26	12.1	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3dxn7	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3but5	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3bfg1	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2z6p9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2xle6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2wsf6	155	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2g4j7	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
j2dar3	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1xik8	128	26	12.1	SubName: Full=Putative toxin YfjG;
j1t233	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1kp39	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1h5k8	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
j1e0l2	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1dkw7	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1cp76	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1ajc5	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0zrt4	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0yt51	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0trm3	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0rxi1	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0rbd4	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0qzi4	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0qbj0	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0ntu4	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0kx29	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0jkv6	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0jb84	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0j605	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0ivp1	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0i911	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0h8b2	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0evl2	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0e352	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i9kav2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9i688	137	26	12.1	SubName: Full=Toxin;
i8tlu8	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ygy3	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y2v0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xus9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xpm0	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x4r9	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x1s5	148	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rye7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rvi4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6r0c0	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qsc1	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6iq89	180	26	12.1	SubName: Full=Toxin complex domain protein;
i6gm61	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

i6g267	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i6fg22	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i6dx58	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i6dhi1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i6bye0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i6b7b8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i5b5x9	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4z5m9	154	26	12.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
i4x415	169	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4v2t1	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
i4uli7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4taf2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4t0a5	105	26	12.1	SubName: Full=Antitoxin of the YpjF-YfjZ toxin-antitoxin sys...
i4rzh6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4rtb0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4qsu1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4qke7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4qc80	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4par6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4nmr6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4nfc5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4iw38	93	26	12.1	SubName: Full=Toxin higB-1;
i4iic1	93	26	12.1	SubName: Full=Toxin higB-1;
i4hgh3	110	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4h743	152	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gll8	110	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4fxw7	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fmi0	93	26	12.1	SubName: Full=Toxin higB-1;
i4fm09	152	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fle8	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ery5	131	26	12.1	SubName: Full=Putative PIN domain protein part of the toxin ...
i4cat5	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4brz3	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zr84	158	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zeg8	150	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3w0b3	131	26	12.1	SubName: Full=Death on curing protein, Doc toxin;
i3hzu3	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin family prote...
i3cvu8	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bsf1	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2z9i8	146	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
i2yys4	146	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
i2sjz8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2rlk4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2qeu0	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2pxh5	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2pp42	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2ie60	158	26	12.1	SubName: Full=Toxin with endonuclease activity YhaV;
i2b9k3	105	26	12.1	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i1baq8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i0zv75	106	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
i0uwe9	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0ut58	144	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
i0u1k2	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
i0tv68	179	26	12.1	SubName: Full=Toxin, OB domain protein;
i0trj5	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
i0rxh8	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0lah3	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0l2q7	163	26	12.1	SubName: Full=Toxin-antitoxin genome stability system PemK-l...

i0hhx1	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9tjh1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h8z2r6	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z2f1	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8yz16	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8nty1	321	39	12.1	SubName: Full=Insecticidal toxin complex protein TcaC;
h8l7u7	184	26	12.1	SubName: Full=Zeta toxin;
h8ius5	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i332	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hy82	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hxz3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hu90	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ht39	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hrd7	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hq47	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hkp7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8gjr8	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8fqq9	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f124	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ey14	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eup5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8d1b7	189	26	12.1	SubName: Full=Cytolethal distending toxin;
h7yaj5	189	26	12.1	SubName: Full=Cytolethal distending toxin;
h7cw42	138	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
h6sf80	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6saa6	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s7i0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s5z8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6nny6	248	30	12.1	SubName: Full=Cytolethal distending toxin protein B;
h5wlh6	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5v633	145	26	12.1	SubName: Full=Ribosome association toxin RatA;
h5ssr2	158	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5khe9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5k201	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5jl37	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5j4a2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5im08	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5hsf2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5ha81	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5gut3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5gdw0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5fzy9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5f2n8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5eld2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5e519	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5du58	122	26	12.1	SubName: Full=Toxin B domain protein;
h5d6b1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5cpl4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5c951	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5bti2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5axz9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5aga9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4zhb5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4yza3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4y2w9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4y2k8	122	26	12.1	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4xnv9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4xma9	122	26	12.1	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...

h4wt95	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4ue88	126	26	12.1	SubName: Full=Toxin doc;
h4llu9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4ksf9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4ks15	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4j8c6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4ili1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4hrg3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4hda0	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4h4u0	231	28	12.1	SubName: Full=Enterotoxin-like toxin;
h4eu99	231	28	12.1	SubName: Full=Enterotoxin-like toxin;
h4ep89	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4dp31	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4d7t8	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4bm29	203	26	12.1	SubName: Full=Toxin beta-grasp domain protein;
h4ayt5	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4arf3	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4aht0	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h4aa44	203	26	12.1	SubName: Full=Beta-grasp domain toxin protein;
h3z1h6	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3yzs2	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3yxf2	179	26	12.1	SubName: Full=Toxin, OB domain protein;
h3yk88	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3yad5	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3y7i1	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3x6r2	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3x5k9	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3x3e3	179	26	12.1	SubName: Full=Toxin, OB domain protein;
h3u0r2	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h3mr86	145	26	12.1	SubName: Full=Putative toxin YfjG;
h3meu3	147	26	12.1	SubName: Full=TIGR02293 family putative toxin-antitoxin syst...
h3kku7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h1zzi1	83	26	12.1	RecName: Full=Toxin To12; AltName: Full=T-beta* NaTx5.5; Fla...
h1zzh9	84	26	12.1	RecName: Full=Toxin To10; AltName: Full=T-alpha* NaTx3.9; Fl...
h1z0u7	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1wgd3	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1we88	126	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1tbr7	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h1t9x4	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h1qcn0	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1lt53	143	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1lbe8	90	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
h1iqk9	123	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1g4q0	120	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h1fbm0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h1ezq0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h1cpd0	138	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
h1c911	174	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
h1bav0	137	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
h0slq2	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0r1p5	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0qyw5	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0jag4	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0g7n3	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0ehr7	163	26	12.1	SubName: Full=Putative HC-toxin efflux carrier TOXA;
h0e3n0	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0da36	281	34	12.1	SubName: Full=Toxin, beta-grasp domain protein;
h0cx40	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;

h0cr53	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
g9zjp7	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9zdx1	123	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g9z477	142	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
g9yq99	158	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g9yla2	159	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g9y1i9	174	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9fb88	108	26	12.1	SubName: Full=Plasmid stable inheritance protein K; SubName:...
g9ev45	138	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g9ar76	110	26	12.1	SubName: Full=Programmed cell death toxin PemK;
g8una2	111	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
g8qy33	346	42	12.1	SubName: Full=Putative membrane protein, putative toxin regu...
g8pee2	161	26	12.1	SubName: Full=Zeta toxin family protein;
g8nzp1	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8nr29	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8mjn1	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7zmr9	314	38	12.1	SubName: Full=Exfoliative toxin A;
g7vhw9	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7v3i0	211	26	12.1	SubName: Full=Zeta toxin family protein;
g7utr1	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qxg2	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qrn6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qr10	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7hgj1	170	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gzt6	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gxs3	126	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gm77	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7bgl1	331	40	12.1	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g6xyf0	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6i4a6	148	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6i1i9	108	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
g6gxh2	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5yjn0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5xzr6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5xfg6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5xas5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5ww46	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5w8x6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5vs73	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5vcg3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5uvx7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5ub56	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5u158	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5tl42	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5nab0	146	26	12.1	SubName: Full=Pertussis-like toxin, ArtB;
g5k230	137	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g5jzb3	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g5jq73	113	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
g5gz64	195	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
g5eb93	183	26	12.1	SubName: Full=Cytolethal distending toxin CdtC;
g4rea2	123	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4r5t3	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin family prote...
g4r4x5	151	26	12.1	SubName: Full=Toxin secretion/phage lysis holin family prote...
g4pxq6	122	26	12.1	SubName: Full=CP4-44 prophage, antitoxin of the YeeV-YeeU to...
g4iit6	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4hlp8	150	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
g4dh65	158	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4cl24	170	26	12.1	SubName: Full=Fic family toxin-antitoxin system;

g4c7d2	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
g2uwc5	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2utk4	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2upp0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2ulp4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2sib7	147	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2s7e9	182	26	12.1	SubName: Full=RTX toxin-activating protein C;
g2n6u3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n584	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n095	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mzs5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2j984	83	26	12.1	SubName: Full=Antitoxin component of the ChpB-ChpS toxin-ant...
g2i8s5	89	26	12.1	SubName: Full=Addiction module toxin Txe/YoeB;
g2gza7	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2d142	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g2aiy4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g2a035	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g1zlz8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g0tq92	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tq76	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tn77	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tn41	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tmm9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0thf3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0slw3	338	41	12.1	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g0js85	108	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g0hlm2	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0fh91	126	26	12.1	SubName: Full=Toxin-antitoxin system, toxin protein;
f9zfk3	176	26	12.1	SubName: Full=RTX toxin-activating protein C;
f9v1h8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uyn5	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uv38	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uf62	121	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f9s7k0	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9rba6	152	26	12.1	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
f9ltf1	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9lh99	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9ldr7	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9hqf6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f9h6l7	120	26	12.1	SubName: Full=Putative plasmid maintenance toxin/Cell growth...
f9glt4	120	26	12.1	SubName: Full=Putative plasmid maintenance toxin/Cell growth...
f9eci4	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9d1t1	135	26	12.1	SubName: Full=Putative toxin-antitoxin system toxin componen...
f9ckf5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f8yin4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f8x7y2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f8m923	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m692	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2u8	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8ehi7	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8brb7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x9s2	153	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x1a4	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wwd3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wuj5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wqf7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wnq3	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wl14	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f7wjw7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wh82	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wez8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7svh8	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7scc7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7n7t2	157	26	12.1	SubName: Full=RTX toxin Ca2+-binding protein;
f7n5y6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f7mrp1	135	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
f6e2w2	153	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6drx2	108	26	12.1	SubName: Full=Holin toxin secretion/phage lysis;
f6dmh5	133	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
f6cmt1	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6c6t3	184	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f6c0w8	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bpi1	153	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bmk6	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6a8w5	174	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6a1c0	139	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
f6a0s6	95	26	12.1	SubName: Full=Toxin HigB-1;
f5zb41	115	26	12.1	SubName: Full=RelE-like Cytotoxic translational repressor of...
f5z1w6	129	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5z0q9	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5ytr5	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5wpw6	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
f5wl80	141	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
f5wfg0	203	26	12.1	SubName: Full=Toxin, beta-grasp domain protein;
f5pp58	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f5nw52	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f5mfq7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f5lpk5	140	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f5l2j1	355	43	12.1	SubName: Full=Zeta toxin;
f5l161	116	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f5ipm7	144	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4w325	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4w0p3	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4vx23	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4ves8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4urj3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4u4g3	104	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4the3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4nh40	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4lg60	102	26	12.1	SubName: Full=Toxin transport protein;
f4l6m3	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4hex4	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4gc07	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4b8m1	140	26	12.1	SubName: Full=VapC-type toxin;
f4b5r8	131	26	12.1	SubName: Full=VapC-type toxin;
f3vf95	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f3ux10	256	31	12.1	SubName: Full=Zeta-toxin;
f3u0h8	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3tsi3	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3q1m6	184	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3m7r3	141	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3lyx3	127	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f2zlx9	115	26	12.1	SubName: Full=Toxin ChpB;
f2vbc7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v772	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v5r8	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f2v2b0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2uuc7	131	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f2nv08	143	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2nf84	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2lsb6	151	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gm40	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gjn9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ggj2	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gfk5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2c0r9	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2acm9	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1w2s7	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0yv04	154	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f0s163	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0nwb7	122	26	12.1	SubName: Full=Xre family toxin-antitoxin system;
f0lre8	169	26	12.1	SubName: Full=General secretion pathway protein M (Cholera t...
f0lfx9	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0ld66	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0hqt6	114	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
f0gqe0	127	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f0g159	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0fyu4	121	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0dki0	127	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e9zrq9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zqc7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9znt7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zm31	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9z1x5	171	26	12.1	SubName: Full=RTX toxin protein acyltransferase;
e9z0b4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9xex5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9xcp0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9w309	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9v2z1	159	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9uwe4	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9td74	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9tbq2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9fnx7	189	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e8yah5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e8wwj1	111	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e8ww16	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8tzz3	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8tbe3	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8lmf9	150	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e7tc62	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7stx8	121	26	12.1	SubName: Full=Programmed cell death toxin PemK;
e7smw1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7sf88	126	26	12.1	SubName: Full=Death on curing protein, Doc toxin;
e7rzg1	158	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7ncn3	161	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
e7n7u7	100	26	12.1	SubName: Full=Putative toxin-antitoxin system protein;
e7n5a9	97	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e7mr02	154	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e7mgz0	145	26	12.1	SubName: Full=Staphylococcal toxin, OB-fold domain protein;
e7jtw2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7iuy0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7i0z4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7i083	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7hbv5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

e7adg2	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6vj92	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6pn42	93	26	12.1	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system ...
e6iae2	154	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gda7	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6g813	119	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e6emy9	154	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6bs98	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e6bgp2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e6awp0	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6avg1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e6acy9	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e5zh45	189	26	12.1	SubName: Full=Cytolethal distending toxin A/C family protein...
e5z3u9	150	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
e5sna3	140	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e5cu15	163	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e5al04	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4qvz7	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4pel6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e4nfl5	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4m8p8	176	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e3r6x2	265	32	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3i6i6	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3i1p5	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3grk2	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3ec73	154	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3ddq8	282	34	12.1	SubName: Full=Insecticidal toxin protein;
e3d292	152	26	12.1	SubName: Full=Putative toxin-activating protein;
e3czc3	106	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e3clq3	256	31	12.1	SubName: Full=Zeta toxin;
e2ziw3	106	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e2zd37	256	31	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e2zat6	80	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2z810	214	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2wnd5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wlx4	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wk85	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wde4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wcm5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wba7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w9u1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w860	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w1h1	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w058	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vyn8	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vwz3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vq66	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vnh9	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vm61	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vcw7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vbb4	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v4k8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v396	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v1s0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uxk6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2utd1	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uql0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2unw7	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

e2ugw0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ufm0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uei1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uc97	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u689	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u4y3	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u450	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u2n0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u1j8	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tub4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tsm2	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tr41	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tpe3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2thm4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tfz8	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tby0	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t7u6	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t6j9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2nrb7	153	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
e1yxl0	113	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1x6a1	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1vpi1	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1pnv5	189	26	12.1	SubName: Full=Cytolethal distending toxin, subunit C;
e1nwy8	127	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1nhn3	127	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1mgc4	96	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1mb64	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1lsr4	256	31	12.1	SubName: Full=Zeta toxin family protein;
e1led0	89	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e1l453	166	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1je67	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1j3e6	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1inh3	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1i5k7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1hf98	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hdt3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hc49	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h5f3	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1fzr6	192	26	12.1	SubName: Full=Ras-like C3 botulinum toxin substrate 1;
e1en34	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0sjk1	104	26	12.1	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
e0qps9	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0j1h5	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e0h536	119	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e0geq5	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0e219	240	29	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e0dhi1	91	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d9yby7	169	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d9yai5	110	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d9y847	150	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d9xjs6	130	26	12.1	SubName: Full=RelE family toxin-antitoxin system, toxin comp...
d9ww68	125	26	12.1	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d9uzn5	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9ssh0	136	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
d9sq02	146	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
d9sg20	169	26	12.1	SubName: Full=RTX toxin-activating protein C;
d9pl25	112	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d8uty6	166	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...

d8us29	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8pdz2	92	26	12.1	SubName: Full=Putative Toxin of proteic killer gene system;
d8gal6	347	42	12.1	SubName: Full=Predicted membrane protein, putative toxin reg...
d8enj9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d8e2k9	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d8cj26	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7zx31	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7yuk0	200	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7yd58	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7xxv4	99	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7xsk7	116	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7xq79	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7xks4	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7ixq0	192	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7imp3	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ex08	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7euu4	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7eu49	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7em44	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cja0	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7bsq8	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7bc14	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7b7b3	106	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d7aig4	194	26	12.1	SubName: Full=Toxin, Fic family;
d6sr65	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6rgq3	184	26	12.1	SubName: Full=Multidrug and toxin extrusion protein 1;
d6l6p9	155	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d6k5j6	124	26	12.1	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d6k2y4	90	26	12.1	SubName: Full=PHD family toxin-antitoxin system, antitoxin c...
d6hzn8	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d6ftw0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6ft99	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fqu1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fmn5	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fl80	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fjg4	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f9g5	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zmp1	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zl48	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zjb9	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zbu6	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zas0	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5za45	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z6c6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yz94	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yxw8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ywc8	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yv08	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yms7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yle4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ykj2	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yje5	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yb88	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y9u5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y8a7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y5i4	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xwp6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xnj7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d5xn60	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5qvm8	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5qsf5	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5qmk5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5hes4	363	44	12.1	SubName: Full=Predicted membrane protein, putative toxin reg...
d5bwf5	90	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
d4xs03	127	26	12.1	SubName: Full=ArsR family toxin-antitoxin system;
d4uyt7	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4tvv6	131	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d4thm1	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4tee0	148	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4hqx6	154	26	12.1	SubName: Full=Programmed cell death toxin PemK;
d4gql7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4fkr6	164	26	12.1	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
d4eu21	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4cpn3	145	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d4ck22	155	26	12.1	SubName: Full=Toxin-antitoxin system protein;
d4c2d5	95	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4btw8	153	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d4bn07	140	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3pqa0	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3ply2	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pla5	126	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pi97	272	33	12.1	SubName: Full=Kunitz/BPTI-like toxin;
d3nur2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3l0k0	128	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3f7c4	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3csb2	155	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3a7h3	160	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d2yk23	338	41	12.1	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
d2scf2	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2scc2	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2qm76	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2pyg3	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2pv17	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2mji0	141	26	12.1	SubName: Full=RelE-like cytotoxic translational repressor of...
d2ajw1	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d2aaq2	155	26	12.1	SubName: Full=Putative toxin;
d1ynv1	166	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d1wk72	164	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d1rw72	111	26	12.1	SubName: Full='antitoxin of the YeeV-YeeU toxin-antitoxin sy...
d1pk13	178	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1pfl4	137	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d1pfb9	161	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d1p6y4	114	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1p3i7	106	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1p354	137	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d1ng95	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1jdp1	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bu27	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0yre7	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0wpm7	177	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d0wgu6	420	51	12.1	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
c9ray3	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9mfy8	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9mas3	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9m7h5	187	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9m4h4	122	26	12.1	SubName: Full=Xre family toxin-antitoxin system;

c9lyh0	144	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9lwm0	215	26	12.1	SubName: Full=Filamentation induced by cAMP protein Fic; Sub...
c9lse8	185	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9lpy9	127	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9lje6	98	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
c9lhj2	112	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c8xhz9	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8ue43	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c8u7z7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c8tvh0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c8t7w3	159	26	12.1	SubName: Full=RelE family toxin-antitoxin system;
c8t432	137	26	12.1	SubName: Full=Xre family toxin-antitoxin system;
c8t1w6	105	26	12.1	SubName: Full=RelE family toxin-antitoxin system;
c8syh7	184	26	12.1	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
c8p7k5	307	37	12.1	SubName: Full=Xre family toxin-antitoxin system;
c8ncd5	169	26	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
c8mei4	315	38	12.1	SubName: Full=Exfoliative toxin;
c7x5x0	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7p4v1	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7m0n1	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7ls69	111	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c7h8n7	178	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7h7a8	111	26	12.1	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
c7gzg2	248	30	12.1	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
c7cbu9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7bjg0	133	26	12.1	SubName: Full=Insecticidal toxin complex protein tccz (Putat...
c6l974	133	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
c6dxb9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6drp7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dnd5	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dm98	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6ba07	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6b7t2	95	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
c6b5w1	142	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5uy12	144	26	12.1	SubName: Full=Toxin complex component ORF-X1;
c5kpg1	264	32	12.1	SubName: Full=Diphteria toxin resistance protein 2, dph2, pu...
c5cmy1	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5b940	175	26	12.1	SubName: Full=RTX toxin, acyltransferase family, putative; E...
c4sfn2	123	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ihl7	144	26	12.1	SubName: Full=Toxin complex component ORF-X1;
c4gjm6	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4exx2	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3knu6	154	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2glu7	140	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
c1c1c5	195	26	12.1	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
c1aie9	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1agv0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1af65	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9wg07	298	36	12.1	SubName: Full=Subunit of Elongator complex, putative (Elonga...
b9nr61	170	26	12.1	SubName: Full=RTX toxin acyltransferase family protein;
b9m9k0	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9m396	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9lmt9	147	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9k318	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jdd5	155	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9j9j1	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9cin3	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9c0a8	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

b8ng41	175	26	12.1	SubName: Full=Toxin biosynthesis peroxidase, putative;
b8ek39	148	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7wv32	146	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7utj0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b7uf31	104	26	12.1	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
b7r4r9	125	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7qzp0	149	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7nq85	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7msq3	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7mk11	122	26	12.1	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7m7h7	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b7lcl2	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b7kuw3	78	26	12.1	SubName: Full=RelE-like cytotoxic translational repressor of...
b7k557	133	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7a786	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6yvl6	156	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6jjz4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6i544	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5w450	126	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5hu57	135	26	12.1	SubName: Full=Addiction module toxin;
b5gst5	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5gks8	314	38	12.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5gie6	371	45	12.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b4waa9	95	26	12.1	SubName: Full=Addiction module toxin, RelE/StbE family;
b4v6w0	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4sgj2	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4ekn8	138	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3x782	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b3rcw3	128	26	12.1	SubName: Full=Putative toxin of a toxin/antitoxin system;
b3ptf5	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3ia52	95	26	12.1	SubName: Full=Toxin RelE;
b3epa1	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2za55	224	27	12.1	SubName: Full=Toxin-coregulated pilin;
b2za51	224	27	12.1	SubName: Full=Toxin-coregulated pilin;
b2v3v0	144	26	12.1	SubName: Full=Toxin complex component ORF-X1;
b2u5p0	132	26	12.1	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b2iis9	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2hgp6	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1yy37	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1t645	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1sfu6	157	26	12.1	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
b1rb96	138	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
b1fp41	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0t745	165	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0t5d1	97	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b0r9l2	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0r9d7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0maz6	157	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
a9ez68	162	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9c2p0	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9ape5	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8ulg6	322	39	12.1	SubName: Full=Necrotic enteritis toxin B; SubName: Full=NetB...
a8l7w1	119	26	12.1	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a8hs73	152	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8gks2	159	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8fjn3	189	26	12.1	SubName: Full=Cytolethal distending toxin;
a7nju7	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7hsf1	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a7c1a1	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7b3f7	162	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
a6x8d1	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6tqx3	147	26	12.1	SubName: Full=Toxin secretion/phage lysis holin;
a6nxn0	178	26	12.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a6li27	136	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6am34	183	26	12.1	SubName: Full=Putative toxin co-regulated pilus biosynthesis...
a5wtr4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5ws88	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wqk3	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wiu7	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5ui89	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5udc1	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u921	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u7j7	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u5u6	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tyw6	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5ew97	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4t1f0	137	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4nq13	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4nm35	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4n1n8	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4mw82	132	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4knq8	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kmg4	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kl78	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kjn8	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4jru0	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z425	148	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z3c0	130	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3vhu3	463	56	12.1	SubName: Full=Hemolysin-type calcium-binding toxin;
a3pus8	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3ixs7	141	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3iku6	131	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2w1a5	139	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vnx9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vm80	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vkv2	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2rbk6	142	26	12.1	SubName: Full=Function: hemolysin of A. fumigatus is a cytol...
a2bjn5	185	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1wsu5	365	44	12.1	SubName: Full=Zeta toxin family protein;
a1wqe5	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1web2	135	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ub49	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kyf9	128	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kq27	145	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1knh9	144	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1klu4	134	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1k249	140	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0zda1	127	26	12.1	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4ebj9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4dtn8	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4dpa1	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4dhg9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4csb8	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r4bu64	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3zm50	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3yql5	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...

r3s5s0	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3i3w1	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2zce0	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2z737	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2z6r4	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2xz21	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2xdi7	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2x828	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2w8y3	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2w8d8	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2qbu3	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2ppr8	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2mfw6	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2m3f6	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2lva3	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2dib0	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2di17	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2d9x9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2cwf6	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2cpi9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2cnf6	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2c1p6	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2c101	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2c082	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2b526	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2anh7	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r2a8x3	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1yum1	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1hia9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r0maz7	299	36	12.0	SubName: Full=Exfoliative toxin;
q6wrx0	408	49	12.0	SubName: Full=Alveicin A bacteriocin toxin;
q60935	325	39	12.0	RecName: Full=GPI-linked NAD(P)(+)--arginine ADP-ribosyltran...
q54327	326	39	12.0	SubName: Full=Synergohymenotropic toxin;
q3hr44	258	31	12.0	SubName: Full=Truncated alpha toxin;
p69929	233	28	12.0	RecName: Full=Peptide toxins Am-1; AltName: Full=Peptide tox...
p20974	275	33	12.0	RecName: Full=T-cell ecto-ADP-ribosyltransferase 2; EC=2.4.2...
p06886	234	28	12.0	RecName: Full=Toxic shock syndrome toxin-1; Short=TSST-1; Fl...
n3e3m1	308	37	12.0	SubName: Full=Zeta toxin family protein;
n1mvt3	458	55	12.0	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
m8zj93	308	37	12.0	SubName: Full=Zeta toxin family protein;
m4sdw4	401	48	12.0	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
l7fg74	283	34	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7fc13	291	35	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7f4v3	259	31	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7f1p1	276	33	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l2t371	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2t1z7	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2sil9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2sdz0	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2rzn5	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2rv21	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2rf83	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2qv70	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2qc52	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2p4u9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2nu52	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2l3r9	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2jw94	258	31	12.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...

k6syc3	233	28	12.0	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
k4n4u4	250	30	12.0	SubName: Full=Clostridial binary toxin A family protein; EC=...
k1v4a0	266	32	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j5hs75	325	39	12.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j1iax4	242	29	12.0	SubName: Full=Toxin secretion protein;
i4mkb6	351	42	12.0	SubName: Full=Zonula occludens toxin;
i0xcz1	242	29	12.0	SubName: Full=Toxin, beta-grasp domain protein;
h8l7m2	258	31	12.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
h8hgr6	250	30	12.0	SubName: Full=VIP2-like ADP-ribosyltransferase toxin;
h8hcu4	250	30	12.0	SubName: Full=VIP2-like ADP-ribosyltransferase toxin;
h4b858	241	29	12.0	SubName: Full=Beta-grasp domain toxin protein;
h3yqt5	242	29	12.0	SubName: Full=Toxin, beta-grasp domain protein;
h3xuu8	242	29	12.0	SubName: Full=Toxin, beta-grasp domain protein;
h3rr67	376	45	12.0	SubName: Full=Putative toxin regulator;
g7xp48	341	41	12.0	SubName: Full=Toxin biosynthesis cytochrome P450 monooxygena...
g7enm0	325	39	12.0	SubName: Full=Exfoliative toxin A/B;
f9nj37	234	28	12.0	SubName: Full=Toxin, beta-grasp domain protein;
f9jly9	234	28	12.0	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f8gy52	408	49	12.0	SubName: Full=Toxin corregulated pilus biosynthesis protein ...
f5t7s2	250	30	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f5rrs2	258	31	12.0	SubName: Full=Toxin transcriptional activator ToxR;
f3thk7	276	33	12.0	SubName: Full=Toxin, beta-grasp domain protein;
f3qzx3	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f2q003	366	44	12.0	SubName: Full=Killer toxin sensitivity protein;
f1zbf7	527	63	12.0	SubName: Full=Rhizobiocin/RTX toxin and hemolysin-type calci...
f0p6u1	326	39	12.0	SubName: Full=Synergohymenotropic toxin;
e9zb75	309	37	12.0	SubName: Full=Zeta toxin protein;
e6igd2	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ie86	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6i1e2	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gzl0	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gqy7	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6gjd3	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6fdc2	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6evp4	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e5azk4	258	31	12.0	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e4iq66	258	31	12.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3wia1	283	34	12.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3cqg3	225	27	12.0	SubName: Full=Zeta toxin;
e2ysw3	217	26	12.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1ciu9	267	32	12.0	SubName: Full=Cytolethal distending toxin B;
d9wtn2	291	35	12.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7ivv8	376	45	12.0	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4d7n5	258	31	12.0	SubName: Full=Toxin biosynthesis ketoreductase, putative;
d4ak74	258	31	12.0	SubName: Full=Toxin biosynthesis ketoreductase, putative;
d3har1	299	36	12.0	SubName: Full=Exfoliative toxin A;
d0wdm1	234	28	12.0	SubName: Full=Zonula occludens toxin family protein;
c3xmt6	274	33	12.0	SubName: Full=Cytolethal distending toxin subunit B;
c0qxe9	267	32	12.0	SubName: Full=Toxin A;
b7j9h3	259	31	12.0	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5qj85	316	38	12.0	SubName: Full=Putative toxin-like outer membrane protein;
a5w815	241	29	12.0	SubName: Full=Zeta toxin family protein;
a2q8b0	351	42	12.0	SubName: Full=Similarity to toxin subunit 1 TOX S1 -Bordetel...
r0tgd1	395	47	11.9	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9f5r1	277	33	11.9	SubName: Full=Toxin co-regulated pilus virulence regulatory ...
q8z6a7	269	32	11.9	RecName: Full=Cytolethal distending toxin subunit B homolog;...
q7u2i5	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5b2e7	420	50	11.9	SubName: Full=TRI7-like toxin biosynthesis protein, putative...

n1wyy6	302	36	11.9	SubName: Full=Serine kinase toxin of HipAB toxin-antitoxin m...
n0gj24	285	34	11.9	SubName: Full=Putative toxin transporter; EC=3.4.22.-;
n0c1i1	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
m7p811	320	38	11.9	SubName: Full=Cholera toxin secretion protein epsF;
m4ltv6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
m2vhz8	285	34	11.9	SubName: Full=Zeta toxin protein;
m1isb3	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7n5i6	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1kwv2	396	47	11.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l0nqp5	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9sik0	421	50	11.9	SubName: Full=Zeta toxin family protein; Flags: Precursor;
k6ptp1	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
k6nrh9	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
k4qp58	227	27	11.9	SubName: Full=Pertussis toxin subunit 3;
j4wze7	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4wdc3	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4w8j9	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4w696	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4w0v1	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4vrp2	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4ppn4	344	41	11.9	SubName: Full=Membrane protein, putative toxin regulator;
j4k896	252	30	11.9	SubName: Full=Zeta toxin;
j2z5v8	362	43	11.9	SubName: Full=Putative toxin regulator;
j1gv35	270	32	11.9	SubName: Full=Zeta toxin;
i4d801	219	26	11.9	SubName: Full=Cytotoxic translational repressor of toxin-ant...
i1sex1	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8xbn0	235	28	11.9	SubName: Full=Diphtheria toxin repressor;
h8hy72	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ht30	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s5y6	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6nu27	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
h1rh51	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0n8n5	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0mr59	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0mfj2	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0m603	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0lv15	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0lhf2	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h0la29	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B protein;...
g9vv42	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
g9vi19	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9uye7	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9usl5	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9ubc7	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9u073	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9ts99	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g9tar1	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g8u619	226	27	11.9	SubName: Full=Putative toxin component;
g7qsz4	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7g462	320	38	11.9	SubName: Full=Exfoliative toxin A/B;
g5qk48	270	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g5p6a2	270	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
g2n572	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tn29	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0slw4	303	36	11.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9uvq0	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m0b8	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4w301	243	29	11.9	SubName: Full=Pertussis toxin, subunit 1 subfamily;

f0jn72	311	37	11.9	SubName: Full=Zeta toxin; poison-antidote element;
f0cwz0	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
f0cvg3	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
f0cj49	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
f0cgy3	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B protein;...
f0ceu6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B protein;...
e9fgw3	303	36	11.9	SubName: Full=Putative exfoliative toxin;
e8grg6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
e8gfi6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
e8gci6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8fwd8	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
e8f4s4	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
e8etv4	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8ebi3	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8diu1	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8cmq1	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8c870	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8bn44	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8ba20	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8b4e6	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit;
e8ajh0	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8af83	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e8a0b5	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7zli9	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7zd29	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7yx02	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7yl44	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7y931	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7xzf9	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7xn56	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7x9t5	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7wlq0	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7wbt3	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7vlx4	269	32	11.9	SubName: Full=Cytolethal distending toxin subunit B;
e7mtt9	244	29	11.9	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e5rm95	268	32	11.9	SubName: Full=Cytolethal distending toxin B;
e5rm78	268	32	11.9	SubName: Full=Cytolethal distending toxin B;
e2cls6	270	32	11.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0nky3	337	40	11.9	SubName: Full=Toxin regulator;
d9y153	295	35	11.9	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xy74	260	31	11.9	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9we78	293	35	11.9	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7eya8	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zbt4	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5za33	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yz82	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ymr5	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yb76	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4kb50	352	42	11.9	SubName: Full=Predicted membrane protein, putative toxin reg...
d2fn02	327	39	11.9	SubName: Full=Leukocidin/hemolysin toxin family protein;
c1ajq4	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5xl31	302	36	11.9	SubName: Full=Putative exfoliative toxin;
b5qhw4	285	34	11.9	SubName: Full=Cytolethal distending toxin;
b5nit8	269	32	11.9	SubName: Full=Cytolethal distending toxin B;
b5cj30	269	32	11.9	SubName: Full=Cytolethal distending toxin B;
b4ttl8	269	32	11.9	SubName: Full=Cytolethal distending toxin B;
b0luq8	370	44	11.9	SubName: Full=Binary toxin A;
a5wit5	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a5tyv4	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4knp9	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vne8	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kf49	226	27	11.9	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1dlq3	252	30	11.9	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
q93tt2	338	40	11.8	SubName: Full=Toxin-coregulated pilus biosynthesis protein F...
q4wqz1	263	31	11.8	SubName: Full=Toxin biosynthesis protein, putative;
n9sti6	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;
n4w0t4	347	41	11.8	SubName: Full=Killer toxin sensitivity protein;
n4vhw9	391	46	11.8	SubName: Full=Toxin biosynthesis protein;
m7qbi9	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;
m7q4f5	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;
m7muk0	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7liv6	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7lh92	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7kz35	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7kh31	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7jts0	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7jnl2	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7j4i7	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7ixt8	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7ip05	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7i930	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7i4x1	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7hdg3	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7gz60	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7gw75	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7g761	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m7f9z4	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m0pv12	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8tf21	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8s6h6	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8s0w2	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8rrj7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8r993	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8r5b8	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8qnu0	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l7fh68	288	34	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7dxl4	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l1l4f9	321	38	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kxl3	287	34	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kil9	305	36	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k5ugv1	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
k5u3m8	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
k5rhx7	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
k5qra5	338	40	11.8	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
k5nim9	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k5l3u1	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k5k6j3	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k4hjn4	355	42	11.8	SubName: Full=Toxin secretion protein;
k2xrj7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k2wup8	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k2wn46	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k2w8k1	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
k2u4s7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j9fuv7	245	29	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j6kd64	220	26	11.8	SubName: Full=Zeta toxin;
j2ce59	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;

j2c890	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;
j2bth4	280	33	11.8	SubName: Full=RelE family toxin-antitoxin system;
j1zrl5	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1z6q4	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1xr30	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1wgs6	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1lpd1	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1kf44	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1gfc8	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1gba9	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1fjz7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1ffe8	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1cw53	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
j1cbt3	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
i2j6r1	346	41	11.8	SubName: Full=Zonula occludens toxin;
h8jv64	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h7s417	228	27	11.8	SubName: Full=Cytolethal distending toxin subunit A;
h4qh29	355	42	11.8	SubName: Full=Toxin B domain protein;
g8qse2	338	40	11.8	SubName: Full=Putative membrane protein, putative toxin regu...
g7tn03	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7bua6	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g7av76	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g7alp5	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g7aaj7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g7a1c1	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g6zqt9	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g6zd90	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g5kg26	254	30	11.8	SubName: Full=Zeta toxin;
g2j4u6	389	46	11.8	SubName: Full=Zonula occludens toxin family protein;
f9c565	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f9b8s7	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f9a328	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f8ztz4	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f8zj47	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f8z7r0	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f8ywt0	338	40	11.8	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
f5w6u6	238	28	11.8	SubName: Full=Toxin, beta-grasp domain protein;
f5sqx6	364	43	11.8	SubName: Full=Toxin regulator;
f4xfe1	237	28	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f3qja9	330	39	11.8	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e2sks5	246	29	11.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2rzj7	280	33	11.8	SubName: Full=Exfoliative toxin; SubName: Full=Exfoliative t...
d9w941	279	33	11.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7y2g9	288	34	11.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d7jyf2	338	40	11.8	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d7hla5	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d6m205	296	35	11.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5p0n3	339	40	11.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4mgr0	287	34	11.8	SubName: Full=Zeta toxin;
d4cwb0	271	32	11.8	SubName: Full=Zeta-toxin;
d2gsw7	254	30	11.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d0hrq6	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c6yew4	338	40	11.8	SubName: Full=Toxin-coregulated pilus biosynthesis protein F...
c6rw18	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c5jrt3	357	42	11.8	SubName: Full=Killer toxin sensitivity protein;
c3nt61	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3lt88	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ja13	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...

c2ign4	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b0y588	263	31	11.8	SubName: Full=Toxin biosynthesis protein, putative;
a3gys4	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gmd4	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1f0z2	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1eib6	338	40	11.8	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
r4edd6	209	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r4afb6	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r3xr55	187	25	11.7	SubName: Full=Zeta-toxin;
r3j8b1	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r3iid8	209	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
r3ihg0	187	25	11.7	SubName: Full=Zeta-toxin;
r3g2t0	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r3clu4	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r3cje6	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r2l7i6	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r1vq56	126	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r1jnw2	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
r1cli9	351	41	11.7	SubName: Full=Membrane protein, toxin regulator;
r1ckc8	188	25	11.7	SubName: Full=Alpha-toxin;
r0xsg2	471	55	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0u3s5	471	55	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0rex6	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0qu16	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0pmi1	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0nh63	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9ux58	212	25	11.7	SubName: Full=Diphtheria toxin repressor;
q9njc8	84	25	11.7	RecName: Full=Toxin BmKaTx13; AltName: Full=Alpha-neurotoxin...
q9kmg9	169	25	11.7	SubName: Full=Toxin resistance protein;
q9cra0	300	35	11.7	RecName: Full=Ecto-ADP-ribosyltransferase 4; EC=2.4.2.31; Al...
q98k22	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q95p90	94	25	11.7	RecName: Full=HMG-CoA reductase inhibitor bumarsin; AltName:...
q93tt4	152	25	11.7	SubName: Full=Toxin-coregulated pilus biosynthesis protein S...
q92xp1	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q92ly3	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q90129	291	34	11.7	SubName: Full=P1M2 beta peptide, KP1 killer toxin;
q90121	127	25	11.7	RecName: Full=KP4 killer toxin; AltName: Full=Fungal toxin K...
q8yk91	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8xa16	104	25	11.7	SubName: Full=CcdB-like protein; SubName: Full=Putative toxi...
q8qgr0	86	25	11.7	RecName: Full=Muscarinic m1-toxin1; Short=m1-toxin; AltName:...
q8g7g8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8fl99	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
q7yxd3	85	25	11.7	RecName: Full=Alpha-toxin Amm8; AltName: Full=Amm VIII; Shor...
q7x2e3	95	25	11.7	SubName: Full=Toxin;
q7u1p1	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u1l9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u0b2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7ni02	149	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7d717	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6zej5	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5zsk2	121	25	11.7	SubName: Full=Structural toxin protein (Hemagglutinin/hemoly...
q5v7r7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5qva1	107	25	11.7	SubName: Full=Toxin-antitoxin stability system antidote prot...
q5p6k8	92	25	11.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
q5hxy3	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5hxj3	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5dz52	445	52	11.7	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
q56tt9	85	25	11.7	RecName: Full=Alpha-insect toxin BjaIT; AltName: Full=Bj-alp...

q56437	159	25	11.7	SubName: Full=Heat-stable toxin II;
q4wfh7	208	25	11.7	SubName: Full=AM-toxin synthetase;
q47646	87	25	11.7	SubName: Full=Shiga toxin 2 variant B-subunit; SubName: Full...
q3jez2	183	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3jdy2	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3b1k9	93	25	11.7	SubName: Full=Addiction module toxin, Txe/YoeB;
q3app7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3a959	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q39vz9	129	25	11.7	SubName: Full=Toxin, PIN family;
q330k6	143	25	11.7	RecName: Full=Snake venom vascular endothelial growth factor...
q2yxe9	315	37	11.7	SubName: Full=Probable exfoliative toxin;
q2wcv2	104	25	11.7	SubName: Full=Putative insecticidal toxin complex protein;
q2rm09	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2rlk1	103	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q2jgq7	157	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2jcd5	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2hwu0	87	25	11.7	SubName: Full=Shiga toxin 2 variant f B-subunit;
q2fsm9	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q221c8	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q211p8	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1wli4	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nre7	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nl89	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nl80	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ngb1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ism1	94	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE;
q1i4a8	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1eg65	85	25	11.7	SubName: Full=Sodium toxin peptide BmKTb;
q1bnl3	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1b0h6	107	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q13b57	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q12hl2	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q12er6	159	25	11.7	SubName: Full=RTX toxin-activating protein C;
q11n06	112	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q0tlt9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
q0k3b6	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q04bx5	351	41	11.7	SubName: Full=Predicted membrane protein, putative toxin reg...
p95259	125	25	11.7	RecName: Full=Toxin HigB;
p64926	132	25	11.7	RecName: Full=Probable VapC ribonuclease Mb2033; Short=Proba...
p64925	132	25	11.7	RecName: Full=Probable ribonuclease VapC15; Short=Probable R...
p64774	127	25	11.7	RecName: Full=Probable VapC ribonuclease Mb0985; Short=Proba...
p64773	127	25	11.7	RecName: Full=Probable ribonuclease VapC9; Short=Probable RN...
p64529	85	25	11.7	RecName: Full=Toxin YoeB; EC=3.1.-.-; AltName: Full=Endoribo...
p64528	85	25	11.7	RecName: Full=Toxin RelK; EC=3.1.-.-; AltName: Full=Endoribo...
p56612	84	25	11.7	RecName: Full=Toxin Tst1; AltName: Full=PT-Mice-beta* NaTx6....
p56611	84	25	11.7	RecName: Full=Toxin Tb1; AltName: Full=PT-Mice-beta* NaTx6.2...
p55121	167	25	11.7	RecName: Full=Leukotoxin-activating lysine-acyltransferase L...
p55120	167	25	11.7	RecName: Full=Leukotoxin-activating lysine-acyltransferase L...
p45665	86	25	11.7	RecName: Full=Toxin CngtIV; Flags: Precursor;
p40540	141	25	11.7	RecName: Full=ER membrane protein complex subunit 5; AltName...
p29489	145	25	11.7	RecName: Full=Toxin coregulated pilus biosynthesis protein H...
p16533	167	25	11.7	RecName: Full=Leukotoxin-activating lysine-acyltransferase L...
p13488	66	25	11.7	RecName: Full=Alpha-like toxin Bom3; AltName: Full=Bom III; ...
p0c6q0	144	25	11.7	RecName: Full=Ribosome association toxin RatA;
p09984	170	25	11.7	RecName: Full=Hemolysin-activating lysine-acyltransferase Hl...
p01395	73	25	11.7	RecName: Full=Alpha-elapitoxin-Dv2a; Short=Alpha-EPTX-Dv2a; ...
o85909	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o58236	149	25	11.7	RecName: Full=Probable ribonuclease VapC4; Short=Probable RN...

o50457	143	25	11.7	RecName: Full=Probable ribonuclease VapC33; Short=Probable R...
o29174	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o07783	130	25	11.7	RecName: Full=Toxin VapC4; AltName: Full=Ribonuclease VapC4;...
o07760	133	25	11.7	RecName: Full=Probable ribonuclease VapC29; Short=Probable R...
o07226	100	25	11.7	RecName: Full=Toxin Rv0299;
n9x4z6	140	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
n6vjm8	116	25	11.7	SubName: Full=Toxin ChpB;
n3q8m1	175	25	11.7	SubName: Full=RTX toxin acyltransferase family protein;
n3jzq0	109	25	11.7	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
n2tfv8	175	25	11.7	SubName: Full=RTX toxin acyltransferase family protein;
n2pic8	109	25	11.7	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
n2a7j5	141	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
n2a2z9	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
n1wdz4	145	25	11.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
n1tu66	198	25	11.7	SubName: Full=Insecticide toxin TcdB middle/N-terminal domai...
n1sp12	93	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n1nlh9	429	50	11.7	SubName: Full=JHE-like toxin, ''Photorhabdus insecticidal re...
n1nf75	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
n1mv95	97	25	11.7	SubName: Full=ParE toxin protein;
n1mn24	131	25	11.7	SubName: Full=Death on curing protein, Doc toxin;
n1lj85	116	25	11.7	SubName: Full=Programmed cell death toxin YdcE;
n0cz95	195	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component;
m9j4h7	109	25	11.7	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m9eg92	308	36	11.7	SubName: Full=Zeta toxin family protein;
m9aky5	109	25	11.7	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m8baq1	174	25	11.7	SubName: Full=RTX toxin acyltransferase family protein;
m7wdt2	117	25	11.7	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7vm59	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7vdk6	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7vb32	122	25	11.7	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7v9i0	117	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7v2m2	122	25	11.7	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7ulm4	117	25	11.7	SubName: Full=Antitoxin YeeU of the YeeV-YeeU toxin-antitoxi...
m7tsz1	116	25	11.7	SubName: Full=Putative structural toxin protein;
m7map4	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7m584	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7m2p9	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7l1t0	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7l1g7	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7kxf7	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ks74	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ka51	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7k3n8	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ju44	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7jn67	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7je24	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ir14	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7iae0	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7hw88	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7htr3	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7hl39	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7hke4	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7hhq6	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7gvl2	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ge94	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7ge78	152	25	11.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7fvb0	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m7frr8	144	25	11.7	SubName: Full=Ribosome association toxin RatA;

m7fbv5	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
m6vwz7	146	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5inl8	139	25	11.7	SubName: Full=Toxin-antitoxin protein, putative;
m5ic41	116	25	11.7	SubName: Full=Toxin ChpB;
m5i0m5	116	25	11.7	SubName: Full=Toxin ChpB;
m5hq79	116	25	11.7	SubName: Full=Toxin ChpB;
m4jh42	116	25	11.7	SubName: Full=Toxin ChpB;
m3uzi6	167	25	11.7	SubName: Full=Toxin YafO, type II toxin-antitoxin system fam...
m3jj14	149	25	11.7	SubName: Full=Cholera toxin transcriptional activator;
m3e9k3	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3cmx8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3ci53	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3bzk0	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2ux01	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2u7b5	140	25	11.7	SubName: Full=Toxin secretion/phage lysis holin family prote...
m2rur1	100	25	11.7	SubName: Full=Death on curing protein, Doc toxin;
m2pq01	124	25	11.7	SubName: Full=Death on curing protein, Doc toxin;
m2nqy7	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m2mwz4	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m2m4y3	132	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m1xps4	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1su72	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1sle4	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ll93	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1jcj8	105	25	11.7	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
m1ihu6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ic80	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ic49	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1hv62	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1hsz3	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0q869	157	25	11.7	SubName: Full=Ribosome association toxin RatA;
m0pxm1	169	25	11.7	SubName: Full=Toxin resistance protein;
m0p639	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0nhk7	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0hz65	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0f3x8	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0evr3	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ecy4	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0d4d8	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0d425	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0cv93	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0a0u6	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9z0q2	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9x161	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9wbl3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9w8u8	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8taz8	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8t2q7	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8st30	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8slt7	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8s8f7	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8s0i3	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8rqd2	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8rda4	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8r2q9	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8qsy3	144	25	11.7	SubName: Full=Putative toxin YfjG;
l8q899	138	25	11.7	SubName: Full=Toxin, OB domain protein;
l8q4m4	138	25	11.7	SubName: Full=Toxin, OB domain protein;

l8p228	124	25	11.7	SubName: Full=Putative Fic family toxin-antitoxin system, to...
l8ny00	93	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
l8n2l4	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8mv80	112	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
l8m5k2	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lu63	136	25	11.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
l8lh53	77	25	11.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
l8lb68	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8ksm1	144	25	11.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
l8klv0	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8cuv6	104	25	11.7	SubName: Full=CcdB toxin protein;
l8axv5	375	44	11.7	SubName: Full=ACR-toxin biosynthesis hydroxylase;
l7f308	193	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l7eyv9	181	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l7d8s2	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
l7b790	149	25	11.7	SubName: Full=Cholera toxin transcriptional activator;
l7ape4	149	25	11.7	SubName: Full=Cholera toxin transcriptional activator;
l7ajt7	149	25	11.7	SubName: Full=Cholera toxin transcriptional activator;
l6x2s2	100	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5ve01	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
l5v260	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5umv9	471	55	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5tr21	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5q2y2	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5pv62	192	25	11.7	SubName: Full=Pre-toxin domain with VENN motif family protei...
l4fbx1	108	25	11.7	SubName: Full=RelE/StbE family addiction module toxin;
l3qw70	132	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3pnj4	126	25	11.7	SubName: Full=Toxin doc;
l3phc4	138	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3jna4	132	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2y0i2	124	25	11.7	SubName: Full=Toxin YeeV;
l2ukc2	132	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2lym6	209	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro p...
l1qq55	158	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1qhn6	131	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1qhj5	126	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l1q7s3	111	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
l1prb3	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
l1nxn1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1nlw7	167	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1n0s6	184	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l1l5k8	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1kxc6	152	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
l1kq66	291	34	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kj98	124	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l1hwg4	173	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1hqj6	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0re04	94	25	11.7	SubName: Full=Putative toxin;
l0qxf2	125	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qvs8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qtk2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qjl3	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qh00	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qfd8	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q6p4	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q5g7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q5a6	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q3r3	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0pzg7	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pw46	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pv03	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ptx5	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0psc7	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pr37	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nym0	85	25	11.7	SubName: Full=TOXIN RELK;
l0nvj6	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nun1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ntx1	125	25	11.7	SubName: Full=PPOSSIBLE TOXIN HIGB;
l0nry0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nru8	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nrm4	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nq55	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0lst4	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0jya0	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0jff2	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0hyd2	100	25	11.7	SubName: Full=Death on curing protein, Doc toxin;
l0hga5	91	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
l0h112	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gr05	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dv37	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0du94	92	25	11.7	SubName: Full=HigB toxin protein;
k9zwv1	155	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
k9zjl0	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zdk2	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9z5d4	149	25	11.7	SubName: Full=RTX toxin-activating protein C;
k9xk17	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9uem9	126	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
k9u0n6	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9tve4	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9trp6	77	25	11.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
k9tp90	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9tlh6	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9tc09	148	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9st21	95	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9rnl2	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qs71	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qj91	126	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9h2m5	103	25	11.7	SubName: Full=CcdB-like toxin protein;
k9cxr9	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8zxg3	105	25	11.7	SubName: Full=Cp4-6 prophage antitoxin of the-toxin-antitoxi...
k8igz8	188	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8b7f8	95	25	11.7	SubName: Full=HigB toxin protein;
k8b3i2	124	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7rt21	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7r6w8	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7qqs6	137	25	11.7	SubName: Full=Putative DNA binding protein, xre family toxin...
k6wz68	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6we95	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6w5a9	147	25	11.7	SubName: Full=Ribosome association toxin RatA;
k6unp8	85	25	11.7	SubName: Full=Putative toxin;
k6uh79	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6km30	119	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
k6ifv3	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6hju6	149	25	11.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k6fes6	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6e6i5	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

k6cn20	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6am03	108	25	11.7	SubName: Full=Toxin ChpB;
k5ysx0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5uft5	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5tx40	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5thv6	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5tbw4	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5sz44	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5sz43	100	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
k5sle1	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5skl8	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5rug1	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5rl78	144	25	11.7	SubName: Full=Ribosome association toxin RatA;
k5cdj8	156	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5c1k4	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
k4xwe0	116	25	11.7	SubName: Full=Toxin ChpB;
k4xr96	116	25	11.7	SubName: Full=Toxin ChpB;
k4xpn5	116	25	11.7	SubName: Full=Toxin ChpB;
k4xh77	116	25	11.7	SubName: Full=Toxin ChpB;
k4wwl4	116	25	11.7	SubName: Full=Toxin ChpB;
k4w425	116	25	11.7	SubName: Full=Toxin ChpB;
k4vl61	116	25	11.7	SubName: Full=Toxin ChpB;
k4use2	116	25	11.7	SubName: Full=Toxin ChpB;
k4iat8	153	25	11.7	SubName: Full=Antitoxin transcriptional regulator (Mobile my...
k3vqc0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3v5t7	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3u2j4	124	25	11.7	SubName: Full=Toxin CbtA;
k3twg0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3tfl8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3s322	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3s0j1	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3rpj9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3rnd6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3r7s2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3q942	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3pzf6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3pma1	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3nyx2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3nn28	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3n5k2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3myz8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3mqe4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3lld7	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3kvk5	214	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
k3kul8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3k7x9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3jua2	124	25	11.7	SubName: Full=Toxin CbtA;
k3jbl9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3is01	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3hl81	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3hdj5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3gtz7	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3gnw4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3gj24	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3ffy5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3f3a1	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3dii6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3dft8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...

k3dbe4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3cky1	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3cd58	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3bpd3	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3bg03	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k3b8x0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k2zjd8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k2z732	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k2z6m3	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k2ysw8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
k2yd82	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2xfw7	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2xa39	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2wsm6	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2wqs5	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2vvz9	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2vv72	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2v6t0	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2v5l1	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2v467	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2uum7	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2uey2	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2tyj8	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2tnz3	144	25	11.7	SubName: Full=Putative toxin YfjG;
k2lpt0	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2cyk4	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1zks8	126	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1x5u3	419	49	11.7	SubName: Full=Toxin biosynthesis protein;
k1x3w2	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1wbf8	148	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1tfr8	123	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
k1bvx6	120	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin MazF;
k1azz1	123	25	11.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
k0wy38	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0v774	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0q6p8	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0py64	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0per9	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0npc8	112	25	11.7	SubName: Full=MazF: transcriptional modulator of MazE/toxin;...
k0ngg5	128	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
k0ewp8	150	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0bdk0	116	25	11.7	SubName: Full=Toxin ChpB;
k0avk1	116	25	11.7	SubName: Full=Toxin ChpB;
k0ara2	117	25	11.7	SubName: Full=CP4-44 prophage YeeV-YeeU toxin-antitoxin syst...
j9ztm5	116	25	11.7	SubName: Full=Toxin ChpB;
j9znx4	117	25	11.7	SubName: Full=CP4-44 prophage YeeV-YeeU toxin-antitoxin syst...
j9gza9	89	25	11.7	SubName: Full=Txe/YoeB family addiction module toxin;
j9c5q9	165	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
j8xqv6	107	25	11.7	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8t4q3	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8key1	117	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
j8a620	173	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
j7qun7	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7q730	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7ld20	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7c5x5	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j7asf5	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6y5i1	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...

j6w2p1	143	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6t5j8	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6sfp3	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6lhs2	152	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
j6dq77	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j6dhr5	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j6dfc1	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5xvx1	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j5c5c2	186	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4wgs3	145	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4tjg0	173	25	11.7	SubName: Full=Zeta toxin;
j4t800	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4six1	186	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4rp09	89	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
j4j624	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3kss8	316	37	11.7	SubName: Full=Multidrug and toxin extrusion protein 1;
j3ijz3	148	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3icp7	84	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3gyd1	153	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3fde8	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3f3l2	160	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3dtw6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3dqv1	198	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3dpz8	84	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3czv9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2znn9	104	25	11.7	SubName: Full=Addiction module toxin;
j2xhd4	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2wx59	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2t0f6	84	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j2sb72	93	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j2qpz8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2ma05	93	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j2m7f0	84	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j2ewb3	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2a4p2	144	25	11.7	SubName: Full=Putative toxin YfjG;
j2a0u5	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1zrs8	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1yvp5	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1y7f7	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1y349	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1x0c9	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1vsr7	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1qhz9	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1ld95	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1ki07	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1hde2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1h710	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1g187	172	25	11.7	SubName: Full=Toxin-antitoxin toxin gnat family;
j1fsl6	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1f8d7	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1ezs7	138	25	11.7	SubName: Full=Toxin OB-fold domain-containing protein;
j1dwl7	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1duj8	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1cyi4	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1cni6	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1c7i6	144	25	11.7	SubName: Full=Putative toxin YfjG;
j1c035	111	25	11.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
j1bam8	168	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...

j1an85	111	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
j0vnw7	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0v924	136	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0mq72	170	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0lsa6	105	25	11.7	SubName: Full=Cp4-6 prophage antitoxin of the-toxin-antitoxi...
j0jq74	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0izm3	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0hv65	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0chn9	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0bpn3	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0blx6	96	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j0bgy0	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9wgs2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9n233	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9m2d3	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9hfx0	100	25	11.7	SubName: Full=Putative RelE/ParE family protein, cytotoxic t...
i9c2w6	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9b6y8	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8uia8	194	25	11.7	SubName: Full=Zeta toxin;
i8srf6	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8rn50	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i7keb6	124	25	11.7	SubName: Full=Putative plasmid toxin protein PemK; EC=3.1.-....
i7kaq2	93	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
i6yc73	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y8a2	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y595	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xnx2	94	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
i6xgz2	85	25	11.7	SubName: Full=Toxin;
i6x9d5	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x8y6	100	25	11.7	SubName: Full=Toxin;
i6x0r7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rk32	85	25	11.7	SubName: Full=Toxin;
i6rid8	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rct2	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qw30	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6quh9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qsk9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6gcd5	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
i6b1w8	123	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ay13	131	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i6a5y4	123	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6a4r6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5zgg6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5z705	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5z3g2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5z2i0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5yfd4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5xtk9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5x8j5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5x4x3	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5weg5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5w0p9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5vay0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5v6z3	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5uu76	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5u087	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5tnp0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5tfr0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...

i5si78	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5s5h2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5rsz1	201	25	11.7	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i5rk05	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ris0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5qt14	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5qa57	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5pqt5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5p375	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5nuu3	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ns71	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5mrj8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5mc59	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5lzy9	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5kvh2	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5km10	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5jmw0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5j8k4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5j431	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ivj0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ipb0	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5hkm5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5hi22	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5h812	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5g7x7	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5g3f8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ft58	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ekk6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5ejr7	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
i5bre2	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i5bcr9	99	25	11.7	SubName: Full=CcdB-like toxin protein;
i4xuu7	198	25	11.7	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
i4xrq8	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ww25	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4tnb9	105	25	11.7	SubName: Full=Antitoxin of the YpjF-YfjZ toxin-antitoxin sys...
i4sh11	116	25	11.7	SubName: Full=Toxin ChpB;
i4s2m4	105	25	11.7	SubName: Full=Antitoxin of the YpjF-YfjZ toxin-antitoxin sys...
i4rbx0	116	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin MazF;
i4r3y4	116	25	11.7	SubName: Full=Toxin ChpB;
i4qmk5	116	25	11.7	SubName: Full=Toxin ChpB;
i4q8c7	116	25	11.7	SubName: Full=Toxin ChpB;
i4pkm2	116	25	11.7	SubName: Full=Toxin ChpB;
i4nzf3	116	25	11.7	SubName: Full=Toxin ChpB;
i4nhq4	116	25	11.7	SubName: Full=Toxin ChpB;
i4ng36	116	25	11.7	SubName: Full=Toxin ChpB;
i4ir37	107	25	11.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4icb1	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hhk9	107	25	11.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4hem8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gxh2	107	25	11.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4g9q1	107	25	11.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4g3v6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g0c8	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fzu5	93	25	11.7	SubName: Full=Toxin higB-1;
i4fr46	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fl15	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4exg3	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4bsy2	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

i4bbl1	163	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b1n2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4alj9	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zks3	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3tfe3	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ifu3	105	25	11.7	SubName: Full=CcdB-like toxin protein;
i3idp2	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3dbu2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bmi9	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3b216	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ayy5	159	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i3awx8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ar37	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2zgl2	161	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2vca1	106	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
i2su13	138	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2r2w7	144	25	11.7	SubName: Full=Toxin YeeV;
i2k835	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2ip60	96	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
i2inq2	165	25	11.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
i2acy6	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2a3r5	116	25	11.7	SubName: Full=Toxin ChpB;
i1d730	118	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0zxa3	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
i0xgj4	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
i0vy73	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
i0v3y9	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0tzu9	138	25	11.7	SubName: Full=Toxin, OB domain protein;
i0tpe6	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0ti13	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i0s3i6	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0rpt9	117	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0j977	123	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i0bjc0	461	54	11.7	SubName: Full=RTX toxins and-related Ca2+-binding protein;
h9zuh5	151	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9y9k2	116	25	11.7	SubName: Full=Toxin ChpB;
h8z3s9	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i2s9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i2n1	166	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i1l6	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i1j4	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hwe2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8huq1	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hqf8	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hnd5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hln2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hk99	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hk78	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8fqq7	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f486	104	25	11.7	SubName: Full=Programmed cell death toxin;
h8f422	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8f0q8	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eyu9	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewu0	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8etj3	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8dh31	132	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h7w8e4	195	25	11.7	SubName: Full=Cytolethal distending toxin subunit A;
h7gi65	151	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h6uj66	176	25	11.7	SubName: Full=Cytolethal distending toxin C;
h6sk65	107	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h6sdk8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6sbi5	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s9x1	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s803	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s7y0	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rti1	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rqr4	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6r6a0	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6r665	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6qcm5	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6p9y1	175	25	11.7	SubName: Full=Putative exfoliative toxin;
h6nhx5	461	54	11.7	SubName: Full=RTX toxins and-related Ca2+-binding protein;
h6mk67	116	25	11.7	SubName: Full=Toxin ChpB;
h5x9i4	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5wdd2	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5urh7	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5suv0	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5rie6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5r396	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5qn09	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5q7u8	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5ptk8	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5pd95	143	25	11.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5mny3	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5m9p3	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5lvl8	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5lfb3	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5kpc8	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5kmw5	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5k803	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5jaq6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5h0q4	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5gla9	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5fqk6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5f8w0	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5f878	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5es47	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5ebg1	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5ear3	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5duf9	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5dtc4	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5dde8	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5dc21	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5d8f3	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5cvw6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5bzw5	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5bj92	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5bfe3	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5b3g9	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5amr5	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h5am28	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5a5u1	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4zp48	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4zn00	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4xvu7	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4xg56	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...

h4wjc0	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4wan3	95	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h4thi6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4tga1	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4t185	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4sjx1	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4s499	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4rph0	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4r8i7	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4qs46	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4q9z9	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4pt99	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4nyb9	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4nx74	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4nfd4	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4mjm1	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4mi75	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4m1s2	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4llc6	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4lky2	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4l678	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4l611	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4kr60	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4kqr2	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4jw46	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4j123	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4ik67	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4ijh8	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4i5e4	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h4i533	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h4gfr1	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h4g4w1	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h4g002	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3zu17	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3yvj3	138	25	11.7	SubName: Full=Toxin, OB domain protein;
h3yp31	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3ylf9	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3y8v9	138	25	11.7	SubName: Full=Toxin, OB domain protein;
h3y2x2	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3y061	298	35	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3xxp1	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3xmf0	138	25	11.7	SubName: Full=Toxin, OB domain protein;
h3xe00	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3x8w7	138	25	11.7	SubName: Full=Toxin, OB domain protein;
h3w2n1	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3uxc3	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3um79	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3ubv2	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3u7e8	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3tpj8	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h3sag8	153	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
h3rg65	144	25	11.7	SubName: Full=Ribosome association toxin;
h3kxl2	116	25	11.7	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h3kx76	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of YeeV-YeeU toxin-a...
h3bua0	257	30	11.7	SubName: Full=Anthrax toxin receptor-like;
h2ch20	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1yxs2	112	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h1w8l7	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h1tlq8	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h1t7x4	138	25	11.7	SubName: Full=Toxin, OB domain protein;
h1szw1	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h1s2z4	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1nvx9	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1lvm2	140	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
h1ll34	162	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
h1lk94	113	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h1k2i5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1gf05	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
h1gd69	173	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h1azr5	131	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
h0hx25	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0fzl9	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0ezn4	358	42	11.7	SubName: Full=Putative HC-toxin efflux carrier TOXA;
h0e3u5	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0d7m8	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0d506	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0d1p1	256	30	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0cnc0	138	25	11.7	SubName: Full=Toxin, OB-fold domain protein;
h0cf88	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0b0b6	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0auq2	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0aj06	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
h0a4d8	116	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9za26	184	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9z7m5	180	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9yui2	142	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
g9yne3	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9qfn9	141	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
g9mbb1	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8ux90	121	25	11.7	SubName: Full=Structural toxin protein (Hemagglutinin/hemoly...
g8rrq8	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8r0j0	170	25	11.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
g8ql31	156	25	11.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
g8nzv0	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8mcm0	112	25	11.7	SubName: Full=Toxin ChpA;
g7vas6	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7rmp8	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting;
g7rew5	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting;
g7qz40	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qxb5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qwb4	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qvt4	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qqk9	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gyd2	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gqd2	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gq50	291	34	11.7	SubName: Full=Zeta toxin family protein;
g7c4x1	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7bud6	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7bgm3	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7b5t1	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7av88	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7alq7	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7aak9	144	25	11.7	SubName: Full=Putative toxin YfjG;
g7a1d4	144	25	11.7	SubName: Full=Putative toxin YfjG;
g6zqv1	144	25	11.7	SubName: Full=Putative toxin YfjG;
g6zda2	144	25	11.7	SubName: Full=Putative toxin YfjG;

g6z4r9	144	25	11.7	SubName: Full=Putative toxin YfjG;
g6y886	117	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g6heq1	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6c780	341	40	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
g5s4v5	94	25	11.7	SubName: Full=YfjZ toxin protein;
g5qp82	88	25	11.7	SubName: Full=VapC toxin protein;
g5qc88	94	25	11.7	SubName: Full=YfjZ toxin protein;
g5psd7	128	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5p2j9	94	25	11.7	SubName: Full=YfjZ toxin protein;
g5ka88	170	25	11.7	SubName: Full=Zeta toxin domain protein;
g5iy23	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5gvj2	141	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
g5gtr6	281	33	11.7	SubName: Full=Zeta-toxin;
g5f3m4	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g5f170	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4st86	122	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4pqm2	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
g4m4e4	130	25	11.7	SubName: Full=Death on curing protein, Doc toxin;
g4c136	230	27	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
g3iew6	178	25	11.7	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
g3egg3	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2yiq7	191	25	11.7	SubName: Full=Similar to similar to cercosporin toxin biosyn...
g2uuc1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2us86	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2us63	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uq97	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2up22	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2t6g7	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2sy25	210	25	11.7	SubName: Full=Putative entericidin like toxin protein;
g2sid0	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2sgu9	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n781	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n4t9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n3n2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mzu9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mz37	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mlk0	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2llw7	172	25	11.7	SubName: Full=RTX toxin;
g2f8p2	122	25	11.7	SubName: Full=CP4-44 prophage; antitoxin of the YeeV-YeeU to...
g1xvm9	192	25	11.7	SubName: Full=RTX toxins and related Ca2+-binding protein;
g0tqa0	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tq85	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tq05	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tm01	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tlx6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0thr7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hns0	158	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0ehb5	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0egx3	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0ecz2	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0dds8	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
f9zss9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9xux7	205	25	11.7	SubName: Full=Cytolethal distending toxin A;
f9vsp5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9vnu8	133	25	11.7	SubName: Full=Putative toxin;
f9vnr0	137	25	11.7	SubName: Full=Putative toxin;
f9vmh7	143	25	11.7	SubName: Full=Putative toxin;
f9v4d8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f9v1n5	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uzy5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uy19	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uxz5	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uhk0	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9ua40	96	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f9u8r1	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9r551	122	25	11.7	SubName: Full=CP4-44 prophage; antitoxin of the YeeV-YeeU to...
f9ppt0	127	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f9p909	139	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f9new8	170	25	11.7	SubName: Full=Zeta toxin domain protein;
f9mgz5	256	30	11.7	SubName: Full=Zeta toxin;
f9lyk5	112	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f9l949	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f9k6i4	138	25	11.7	SubName: Full=Toxin, OB-fold domain protein;
f9hb62	256	30	11.7	SubName: Full=Zeta toxin;
f9cr52	116	25	11.7	SubName: Full=Toxin ChpB;
f9c577	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9bwx1	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9bjm7	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9b8t9	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9atx1	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9adl6	144	25	11.7	SubName: Full=Putative toxin YfjG;
f9a342	144	25	11.7	SubName: Full=Putative toxin YfjG;
f8zu07	144	25	11.7	SubName: Full=Putative toxin YfjG;
f8zj59	144	25	11.7	SubName: Full=Putative toxin YfjG;
f8z7s1	144	25	11.7	SubName: Full=Putative toxin YfjG;
f8ywu3	144	25	11.7	SubName: Full=Putative toxin YfjG;
f8yp65	116	25	11.7	SubName: Full=Toxin ChpB;
f8xh49	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f8xd19	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f8uni9	114	25	11.7	SubName: Full=Putative beta I toxin; SubName: Full=Putative ...
f8m639	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m4k5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2j9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2h6	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8lzp9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8jrf4	152	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8gsk4	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8fb41	461	54	11.7	SubName: Full=RTX toxins and related Ca2+-binding protein;
f8dx36	94	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f8c950	169	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8az32	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8at73	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8a627	187	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7zb13	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7z6i4	392	46	11.7	SubName: Full=Membrane protein putative toxin regulator-like...
f7xck9	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x932	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wwi5	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wu96	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wsc2	104	25	11.7	SubName: Full=Toxin;
f7wrr0	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrj3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrh8	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wnk7	104	25	11.7	SubName: Full=Toxin;
f7wnf5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wn73	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f7wn57	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7whj3	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wfq6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7q717	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pnk9	150	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pfz2	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7nnn5	108	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
f7msj2	136	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f6ivy2	104	25	11.7	SubName: Full=Addiction module toxin;
f6g2n5	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6e2a4	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dm37	131	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f6djn4	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dj98	151	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cnw0	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6c841	169	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f6bxz7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bw34	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5y2f9	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5y103	153	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xwf7	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xpi0	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xig1	148	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5wpi7	138	25	11.7	SubName: Full=Putative toxin;
f5whi2	141	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
f5w400	158	25	11.7	SubName: Full=Toxin, beta-grasp domain protein;
f5ulh5	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5tdi0	127	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f5s8s3	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5mc05	104	25	11.7	SubName: Full=CcdB toxin protein;
f5lc85	247	29	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f5l302	139	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f5cpe6	84	25	11.7	RecName: Full=Three finger toxin MALT0070C; AltName: Full=MA...
f4y0i4	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4xhw2	142	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4xgm1	185	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f4xg00	118	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4vxn5	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f4vmm3	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4vjz1	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4vgs6	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f4uy57	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4uu00	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4uh70	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4u3c4	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4tnd7	126	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4tla5	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4stj4	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4sq90	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4nkn3	116	25	11.7	SubName: Full=Toxin ChpB;
f3tyd4	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3tsn4	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3sxs2	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3qm87	144	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f3q1i1	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f3psl0	155	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3p3i6	197	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f3m038	177	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...

f3ly88	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f3lju3	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3lfc3	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vbr1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vbn1	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vb82	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v4u0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v423	85	25	11.7	SubName: Full=Toxin;
f2v3y5	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v1m1	123	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
f2v1c5	89	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
f2v0n3	152	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f2sxg1	112	25	11.7	SubName: Full=Structural toxin protein RtxA;
f2s9k7	112	25	11.7	SubName: Full=Structural toxin protein RtxA;
f2q7x4	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2psk9	112	25	11.7	SubName: Full=Structural toxin protein RtxA;
f2nx89	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2kqx8	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2jpe4	153	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f2jp04	152	25	11.7	SubName: Full=Iron dependent repressor, diptheria toxin type...
f2j136	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gmr4	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gmp1	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ghw6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gg81	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gfs0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2a3f0	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1y1f7	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
f1y0u4	104	25	11.7	SubName: Full=CcdB toxin protein;
f1xla2	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
f1xki0	104	25	11.7	SubName: Full=CcdB toxin protein;
f0z3d6	199	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f0rmf5	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0nw19	116	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f0nn85	132	25	11.7	SubName: Full=VapC-type toxin;
f0mxy3	332	39	11.7	SubName: Full=RTX prokaryotic toxin family protein;
f0m0r8	203	25	11.7	SubName: Full=Toxin transcriptional activator ToxR;
f0llx7	169	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0jpu1	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
f0j7c0	94	25	11.7	SubName: Full=Putative toxin;
f0hn17	164	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f0hln9	128	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f0hkv4	256	30	11.7	SubName: Full=Zeta toxin;
f0gt21	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f0gn05	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
f0def4	315	37	11.7	SubName: Full=Exfoliative toxin;
f0d1d4	315	37	11.7	SubName: Full=Exfoliative toxin;
e9zpc7	85	25	11.7	SubName: Full=Toxin protein;
e9zls5	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zka6	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zi25	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zh70	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zg68	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zg44	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9us96	184	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9ua75	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9tyz4	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9tqv9	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...

e9tfk8	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e9te07	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9fgd7	101	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
e9eut7	116	25	11.7	SubName: Full=Structural toxin protein RtxA;
e9e2c8	161	25	11.7	SubName: Full=Hirsutellin A toxin;
e9aag9	149	25	11.7	SubName: Full=Cholera toxin transcriptional activator;
e9a164	240	28	11.7	SubName: Full=Guanine nucleotide exchange factor sopE2 Effec...
e8y347	116	25	11.7	SubName: Full=Toxin ChpB; SubName: Full=Transcriptional modu...
e8x7n6	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8wt93	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8v2w8	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8sth2	109	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e8mrq8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8mgt1	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8le92	239	28	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e8j9p5	116	25	11.7	SubName: Full=Toxin ChpB;
e8iv30	116	25	11.7	SubName: Full=Toxin ChpB;
e8ih91	116	25	11.7	SubName: Full=Toxin ChpB;
e8i353	116	25	11.7	SubName: Full=Toxin ChpB;
e8hnm3	116	25	11.7	SubName: Full=Toxin ChpB;
e8haf0	116	25	11.7	SubName: Full=Toxin ChpB;
e8fbf9	197	25	11.7	SubName: Full=Cytolethal distending toxin subunit CdtB;
e7ujj7	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
e7u105	104	25	11.7	SubName: Full=CcdB toxin protein;
e7tsk3	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
e7tqw5	104	25	11.7	SubName: Full=CcdB toxin protein;
e7t688	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
e7t0a8	104	25	11.7	SubName: Full=CcdB toxin protein;
e7ruq9	126	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e7qwq1	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7ex57	443	52	11.7	SubName: Full=Multidrug and toxin extrusion protein 1;
e6vdp2	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6tps0	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6qcl2	107	25	11.7	SubName: Full=Putative Plasmid maintenance toxin/Cell growth...
e6q6j3	113	25	11.7	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
e6pje7	155	25	11.7	SubName: Full=Toxin of the YafQ-DinJ toxin-antitoxin system ...
e6pd23	113	25	11.7	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
e6ih28	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e6hr45	134	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e6gns5	152	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
e6ewf9	152	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
e6evj9	128	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6bjs6	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6bib1	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e6api6	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6a813	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6a790	139	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5xwl6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5x9x0	256	30	11.7	SubName: Full=Zeta toxin;
e5vfp0	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5ufc4	141	25	11.7	SubName: Full=Toxin HigB-2;
e5r6n6	138	25	11.7	SubName: Full=Staphylococcal/Streptococcal toxin, OB-fold do...
e4zcz8	155	25	11.7	SubName: Full=Putative toxin-activating protein;
e4tge3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4r0a7	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4lr65	109	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4jgv4	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4j570	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...

e4iwb7	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4igx0	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4i4l3	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4hmw9	264	31	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e4hjr6	197	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
e4bhv7	197	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
e4afj7	197	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
e3zfv9	239	28	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e3z3m9	150	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3yuv0	153	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3yl88	150	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3r3c5	151	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3r189	124	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e3j8v2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3j1a6	125	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3i5h4	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3hmv7	155	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3gen4	135	25	11.7	SubName: Full=Toxin-antitoxin system;
e3ddf4	247	29	11.7	SubName: Full=Probable toxin transcriptional activator ToxR;...
e3c1q5	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e3c0r1	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e3bzu4	177	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3bvw0	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e3bsq9	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e2z118	146	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2wme9	85	25	11.7	SubName: Full=Toxin;
e2wih4	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wga6	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wfh7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wei1	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wac8	85	25	11.7	SubName: Full=Toxin;
e2w6j1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w4b7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w3j5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2j9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vz70	85	25	11.7	SubName: Full=Toxin;
e2vvb5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vt39	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vs97	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vr97	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vnv4	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vmk7	85	25	11.7	SubName: Full=Toxin;
e2vj04	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vgt8	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vfz4	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vex9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vdj0	85	25	11.7	SubName: Full=Toxin;
e2v9n9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v7j3	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v6r2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5p1	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v2a4	85	25	11.7	SubName: Full=Toxin;
e2uzh5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uw99	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uvf6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uug3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2us16	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ur34	85	25	11.7	SubName: Full=Toxin;

e2um74	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uk43	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uja6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uib7	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uf23	85	25	11.7	SubName: Full=Toxin;
e2ud39	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uaj6	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u8h7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u7k6	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u363	85	25	11.7	SubName: Full=Toxin;
e2tza7	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tx58	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tw71	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tve0	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2trm7	85	25	11.7	SubName: Full=Toxin;
e2tmr9	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tkk3	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tjp7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tiq3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tgh8	85	25	11.7	SubName: Full=Toxin;
e2tff0	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tem9	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2teb1	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tac6	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2sur4	178	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2stq7	131	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2sm01	148	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2skx0	173	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2qex9	104	25	11.7	SubName: Full=Toxin of gyrase inhibiting toxin-antitoxin sys...
e2pbg9	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2p1p5	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ckk8	201	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, gnat ...
e1yk65	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1y854	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1vkf4	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1qdd2	113	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e1pih6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
e1nxd1	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e1nr52	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e1nnt8	177	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1nmd1	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e1nke6	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e1nit4	177	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1ng30	177	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1nfk1	281	33	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e1md63	86	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1mbn8	123	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1m3h2	299	35	11.7	SubName: Full=Exfoliative toxin A;
e1ld09	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1l7l2	132	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1j2x7	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1j1r0	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1inu5	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1iiz9	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1i6p8	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1i690	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1hmu7	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1heb9	85	25	11.7	SubName: Full=Toxin;

e1hah2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h8a2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h7h0	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h6i2	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0wu21	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0qn90	123	25	11.7	SubName: Full=HicB family toxin-antitoxin system;
e0nzw4	141	25	11.7	SubName: Full=HicB family toxin-antitoxin system;
e0nhd8	80	25	11.7	SubName: Full=Toxin-antitoxin system;
e0ngw5	147	25	11.7	SubName: Full=GNAT family toxin-antitoxin system;
e0i4t5	135	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
e0f4h1	197	25	11.7	SubName: Full=RTX toxin protein;
d9ygk8	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d9yay7	189	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9yal7	369	43	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d9y1x5	173	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component;
d9y1e6	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9xzi6	176	25	11.7	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d9xyn9	161	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component;
d9xx23	124	25	11.7	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d9xk81	76	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component;
d9wni8	290	34	11.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wnc9	92	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9wle3	195	25	11.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wii8	283	33	11.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9w952	168	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9uq42	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9spg2	149	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
d9r940	142	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
d8hi53	315	37	11.7	SubName: Full=Probable exfoliative toxin;
d8f710	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8f6x2	172	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8ey71	119	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8ey02	128	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8er30	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8egd0	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8e8a9	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8e3x0	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8cgp5	139	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8cdr9	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8bw23	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8bjb3	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8bi35	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8b4x7	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8b481	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8as58	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8aig2	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8aci0	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7zhy5	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7yyj4	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7yw11	139	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7yqr0	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7y6t6	104	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7y669	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7xyv7	116	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7xwg4	200	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d7w9m1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7w993	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7it82	162	25	11.7	SubName: Full=RelE family toxin-antitoxin system;

d7gnx5	161	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
d7es98	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7eq28	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ep44	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7en92	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7en68	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7d8c1	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7d6x3	109	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d7cvk9	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7btv2	152	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7a0r4	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6sk35	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6m697	210	25	11.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6kek7	125	25	11.7	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d6k581	283	33	11.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6j5k1	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
d6ihg3	116	25	11.7	SubName: Full=Programmed cell death toxin ChpB;
d6htv0	133	25	11.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d6fvn5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6frs3	85	25	11.7	SubName: Full=Toxin;
d6fr83	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fpk3	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fmc9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fma4	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fls4	85	25	11.7	SubName: Full=Txe/YoeB family addiction module toxin;
d6fa54	85	25	11.7	SubName: Full=Txe/YoeB family addiction module toxin;
d6f3j4	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f2p5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f1m8	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f1k2	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6ea70	149	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6e6y8	109	25	11.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
d6dia3	341	40	11.7	SubName: Full=Predicted membrane protein, putative toxin reg...
d6da08	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zik5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zez7	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ze36	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zd07	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zcy0	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z4m1	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z2e5	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z1k2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0j8	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0h2	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yws3	202	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ytm6	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yqm1	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ypr2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ynr5	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ynp3	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ygi7	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ye83	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ydd7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ycv8	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yct4	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y6k4	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y2n2	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y1t7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d5y0u0	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y0r6	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xw68	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xsl0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xrr3	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xql8	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ww27	121	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d5ukm5	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5nx35	212	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d5mmh4	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mkc7	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5j9q3	103	25	11.7	SubName: Full=Muscarinic toxin-like protein;
d5j9p4	86	25	11.7	SubName: Full=Short-chain three finger toxin isoform 7;
d5h0s8	112	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d5epu8	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5epi6	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5c6t9	105	25	11.7	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
d5bzs7	150	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5a4c4	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4yzh8	99	25	11.7	SubName: Full=CcdB-like toxin protein;
d4xje6	172	25	11.7	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
d4x5p2	196	25	11.7	SubName: Full=Fic family toxin-antitoxin system;
d4vzi0	135	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4tpm8	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4jvh8	143	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
d4igs3	121	25	11.7	SubName: Full=Putative toxin (Plasmid stable inheritance pro...
d4ea26	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4e9x2	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4ck16	134	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d4cfx9	169	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4c3d2	197	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4bus0	193	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4bqd4	169	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d4bq85	174	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d4bba6	196	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d4b9n1	171	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d3v915	429	50	11.7	SubName: Full=JHE-like toxin, ''Photorhabdus insecticidal re...
d3u2b9	152	25	11.7	SubName: Full=Fused toxin isoform 2;
d3s7s1	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3s489	167	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3rwe0	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3q0z4	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3kzx9	142	25	11.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d3i0l9	96	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3h432	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
d3exf8	153	25	11.7	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d3d3k3	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3cw38	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3as48	79	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d3aj89	150	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d3afu9	185	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3afl2	266	31	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3afe5	143	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3a650	394	46	11.7	SubName: Full=Zonula occludens toxin family protein;
d2zqn0	239	28	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d2zin0	212	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d2zcc9	175	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2yk14	136	25	11.7	SubName: Full=Toxin coregulated pilus biosynthesis protein H...

d2x5w4	182	25	11.7	RecName: Full=Helofensin-3; AltName: Full=Lethal toxin 3; Fl...
d2x5w3	183	25	11.7	RecName: Full=Helofensin-2; AltName: Full=Lethal toxin 2; Fl...
d2tn60	116	25	11.7	SubName: Full=Toxin component of the ChpB-ChpS toxin-antitox...
d2sev5	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2nb07	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
d2mla3	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2g0h5	315	37	11.7	SubName: Full=Exfoliative toxin;
d2aw48	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1qsq1	145	25	11.7	SubName: Full=Toxin secretion/phage lysis holin family prote...
d1pha1	137	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d1pfc2	273	32	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d1p808	94	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1nzn2	144	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d1btv3	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0yu29	123	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d0yph4	139	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0rtm9	307	36	11.7	SubName: Full=Exfoliative toxin A;
d0mf43	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0izz5	146	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0h646	152	25	11.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d0h4l7	169	25	11.7	SubName: Full=Toxin resistance protein;
c9x4k6	85	25	11.7	RecName: Full=Toxin TdNa8; AltName: Full=P*T-alpha* NaTx3.6;...
c9rsj1	109	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c9qsi5	122	25	11.7	SubName: Full=CP4-44 prophage antitoxin of the YeeV-YeeU tox...
c9m4s1	104	25	11.7	SubName: Full=RelE family toxin-antitoxin system;
c9lyk0	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9lws4	198	25	11.7	SubName: Full=Zeta toxin family protein;
c9lw65	138	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c9l3x2	170	25	11.7	SubName: Full=Putative toxin-antitoxin system protein;
c9kur6	112	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
c9kj88	164	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9cdq7	188	25	11.7	SubName: Full=Zeta toxin;
c9c6w9	188	25	11.7	SubName: Full=Zeta toxin;
c8um77	116	25	11.7	SubName: Full=Toxin ChpB of the ChpB-ChpS toxin-antitoxin sy...
c8u0j1	116	25	11.7	SubName: Full=Toxin ChpB of the ChpB-ChpS toxin-antitoxin sy...
c8tp46	116	25	11.7	SubName: Full=Toxin ChpB of the ChpB-ChpS toxin-antitoxin sy...
c8p890	149	25	11.7	SubName: Full=GNAT family toxin-antitoxin system;
c8nig3	101	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
c8n8b7	167	25	11.7	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
c8m010	157	25	11.7	SubName: Full=Toxin OB domain-containing protein;
c7r0f1	117	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
c7npe0	151	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7np84	142	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7nfv3	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7lv90	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7ls58	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7h6e7	169	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c7g829	184	25	11.7	SubName: Full=Toxin-antitoxin system protein;
c7cpx4	187	25	11.7	SubName: Full=Zeta-toxin;
c6uvn6	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
c6up28	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
c6nul4	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6evg6	183	25	11.7	RecName: Full=Helofensin-1; AltName: Full=Lethal toxin 1; Fl...
c6e4i2	108	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c6e0j9	134	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c6dvz5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6duc9	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dtz4	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

c6dtw9	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dq61	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6az59	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6avk3	198	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6at67	96	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
c5n6i8	153	25	11.7	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c5e8n0	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5by84	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4zqr4	122	25	11.7	SubName: Full=CP4-44 prophage; antitoxin of the YeeV-YeeU to...
c4xnx8	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ghw7	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3nxl6	169	25	11.7	SubName: Full=Toxin resistance protein;
c3ngs0	167	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3nex6	167	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3l4w2	153	25	11.7	SubName: Full=Anthrax toxin expression trans-acting positive...
c3kmu6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2jcj8	169	25	11.7	SubName: Full=Toxin resistance protein;
c2idi3	169	25	11.7	SubName: Full=Toxin resistance protein;
c2gt89	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2gsj2	393	46	11.7	SubName: Full=Membrane protein toxin regulator family protei...
c1cir1	299	35	11.7	SubName: Full=Exfoliative toxin A;
c1cch6	299	35	11.7	SubName: Full=Exfoliative toxin A;
c1bxy6	187	25	11.7	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
c1aps8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1amn6	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1alu7	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1aku9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1aks5	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0b7r0	164	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
b9lxa1	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8xh44	73	25	11.7	SubName: Full=Putative potassium channel toxin Tx771;
b8n9y6	247	29	11.7	SubName: Full=Toxin biosynthesis ketoreductase, putative;
b8hzh0	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8h4w4	130	25	11.7	SubName: Full=Death on curing toxin protein doc;
b8h3u3	91	25	11.7	SubName: Full=Toxin protein relE-4;
b8glw9	85	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b8f3q5	176	25	11.7	SubName: Full=Cytolethal distending toxin protein C;
b8ej99	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7tgy2	136	25	11.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7r2b4	154	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7nud7	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
b7nhf4	104	25	11.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
b7mws5	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7mt64	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7msl9	159	25	11.7	SubName: Full=Toxin of the YeeV-YeeU toxin-antitoxin system;...
b7mdf7	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7m9i6	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
b7ldn9	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7lct2	116	25	11.7	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
b7l9y1	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7abc0	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd37	87	25	11.7	RecName: Full=U14-lycotoxin-Ls1b; AltName: Full=Toxin-like s...
b6dd36	87	25	11.7	RecName: Full=U14-lycotoxin-Ls1b; AltName: Full=Toxin-like s...
b6dd34	87	25	11.7	RecName: Full=U14-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dd22	120	25	11.7	RecName: Full=U13-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dcw2	78	25	11.7	RecName: Full=U7-lycotoxin-Ls1a; AltName: Full=Toxin-like st...
b6c3p4	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6a4q1	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

b6a148	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5w515	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4wa88	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4wa77	140	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4w745	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vni0	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4sdh2	131	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4sb75	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4sb09	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4d9k9	149	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4d384	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3pyz3	137	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3ely0	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3dtm2	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3cdc4	155	25	11.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
b3c678	167	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
b2udr0	95	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b2t034	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2drr3	299	35	11.7	SubName: Full=Exfoliative toxin A;
b2dg75	299	35	11.7	SubName: Full=Exfoliative toxin A;
b1ze88	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1y0a6	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1x6t9	122	25	11.7	SubName: Full=CP4-44 prophage; antitoxin of the YeeV-YeeU to...
b1t7t9	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1ryz2	299	35	11.7	SubName: Full=Exfoliative toxin A;
b1lsa6	108	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b1kt93	139	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
b1k470	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1i9k4	299	35	11.7	SubName: Full=Exfoliative toxin A;
b1ah80	185	25	11.7	SubName: Full=Ras-related C3 botulinum toxin substrate 2; Su...
b0uug7	90	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b0tdf9	143	25	11.7	SubName: Full=Holin, toxin secretion/phage lysis family prot...
b0sw79	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0nfz7	248	29	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b0n9s5	140	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
b0mky6	189	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b0jt28	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0jgm9	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0fyx0	360	42	11.7	SubName: Full=NADPH HC toxin reductase-like protein;
a9w8s7	128	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9fl87	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9c106	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8sra2	109	25	11.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
a8skj9	127	25	11.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a8pmg6	308	36	11.7	SubName: Full=Shiga toxin A-chain (RRNA N-glycosidase); EC=3...
a7x3k4	153	25	11.7	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
a7v488	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7jua8	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ima4	121	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7fxn7	138	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
a7br68	157	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bki1	135	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6zvp1	141	25	11.7	SubName: Full=Killer toxin resistant protein;
a6udf9	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5zrt6	143	25	11.7	SubName: Full=Toxin secretion/phage lysis holin;
a5wny8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wls1	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wky2	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a5wjy2	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wjw1	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u435	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u1u0	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u101	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u000	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tzx6	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5khi0	155	25	11.7	SubName: Full=Toxin-like outer membrane protein, putative;
a5itc8	157	25	11.7	SubName: Full=Toxin, OB-fold domain protein;
a5ge23	133	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a5g3c1	85	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
a5ft71	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5f380	152	25	11.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a5f376	144	25	11.7	RecName: Full=Ribosome association toxin RatA;
a5ez11	169	25	11.7	SubName: Full=GCN5-related N-acetyltransferase; SubName: Ful...
a5d5a3	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5d4a0	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4xr47	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4xe53	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4wid5	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4wi06	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4t4i6	145	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4swp2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kp18	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kif2	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kgg6	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kfq8	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4keu7	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kes8	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4f278	189	25	11.7	SubName: Full=Cytolethal distending toxin C;
a4ed50	94	25	11.7	SubName: Full=Addiction module toxin, RelE/StbE family;
a3z864	129	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3tgw9	123	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3i165	151	25	11.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a3gvs8	169	25	11.7	SubName: Full=Toxin resistance protein;
a3gk98	169	25	11.7	SubName: Full=Toxin resistance protein;
a2vkl2	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vjb8	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vgq5	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfu1	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2sfi7	134	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2qjq5	264	31	11.7	SubName: Full=Similarity to larvicidal toxin 42K protein - B...
a2q820	205	25	11.7	SubName: Full=Similarity to killer toxin Khr -Saccharomyces ...
a1wi12	147	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1vwz5	138	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1uqh5	107	25	11.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a1kk54	132	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ki30	143	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kh95	127	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kg96	133	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kg72	130	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1f1z9	169	25	11.7	SubName: Full=Toxin resistance protein;
a1d5u9	325	38	11.7	SubName: Full=Toxin biosynthesis proten (Fum3), putative;
a1c8i9	326	38	11.7	SubName: Full=Toxin biosynthesis proten (Fum3), putative;
a1b6x9	141	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1acl7	122	25	11.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
a0zt18	108	25	11.7	SubName: Full=Antibacterial toxin;
a0zgy0	139	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a0rpi9	205	25	11.7	SubName: Full=Cytolethal distending toxin A;
a0qry0	130	25	11.7	RecName: Full=Toxin Doc; AltName: Full=Death on curing prote...
a0lgn8	144	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0b0m3	136	25	11.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r2nlt2	258	30	11.6	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
q9f5r0	336	39	11.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q58ci5	371	43	11.6	SubName: Full=Zona occludens toxin homologue;
q54326	310	36	11.6	SubName: Full=Synergohymenotropic toxin;
q0mqm7	370	43	11.6	SubName: Full=Binary toxin A;
p93188	362	42	11.6	SubName: Full=NADPH-dependent HC-toxin reductase;
p12963	370	43	11.6	RecName: Full=41.9 kDa insecticidal toxin; AltName: Full=Str...
p05516	370	43	11.6	RecName: Full=41.9 kDa insecticidal toxin; AltName: Full=Str...
n1v844	258	30	11.6	SubName: Full=Cytolethal distending toxin subunit CdtB;
m5tpm5	388	45	11.6	SubName: Full=Zeta toxin family protein;
m5pw43	302	35	11.6	SubName: Full=Exfoliative toxin A;
m3fmw0	292	34	11.6	SubName: Full=Xre family toxin-antitoxin system antitoxin co...
m0puw3	344	40	11.6	SubName: Full=RTX toxin transporter, ATP-binding protein;
l9u2y0	353	41	11.6	SubName: Full=Toxin regulatory protein;
l8q5x1	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
l7fis2	276	32	11.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7d3g1	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
l2pnb5	258	30	11.6	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l1l996	318	37	11.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l0x249	294	34	11.6	SubName: Full=Toxin A;
k2vzl3	336	39	11.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2dgr0	285	33	11.6	SubName: Full=Zonular occludens toxin;
k0lbs9	258	30	11.6	SubName: Full=Enterotoxin type G; SubName: Full=Toxin beta-g...
j2zyj0	344	40	11.6	SubName: Full=Membrane protein, putative toxin regulator;
i3i257	302	35	11.6	SubName: Full=Exfoliative toxin;
i2e2g3	370	43	11.6	SubName: Full=Binary toxin A;
i0tzj4	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h9cjg1	277	32	11.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h4y0r7	345	40	11.6	SubName: Full=Zonular occludens toxin family protein;
h4q8l2	320	37	11.6	SubName: Full=Toxin B domain protein;
h4lm33	320	37	11.6	SubName: Full=Toxin B domain protein;
h4g4u2	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h4g3m4	250	29	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h3yw84	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h3yfy6	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h3y8j0	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h3x4r0	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h1ttm6	250	29	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h1tfe8	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h1t7i6	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h0cpz5	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h0b0j0	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
h0auz9	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
g8w1j9	224	26	11.6	SubName: Full=RelE family toxin-antitoxin system;
g7f0l9	320	37	11.6	SubName: Full=Exfoliative toxin A/B;
g6bnu0	275	32	11.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
f9kcq7	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
f9k3x8	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
f8ktk4	449	52	11.6	SubName: Full=Toxin-like outer membrane protein;
f5wm09	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
f5wgd2	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
f5w8g0	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
f5vv23	250	29	11.6	SubName: Full=Zeta toxin;
f3the7	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;

f2q1d2	258	30	11.6	SubName: Full=Toxin biosynthesis ketoreductase;
e9dv19	249	29	11.6	SubName: Full=TRI7-like toxin biosynthesis protein;
e7nci5	430	50	11.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e7mwn7	268	31	11.6	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e7ecw1	362	42	11.6	SubName: Full=40kDa insecticidal toxin;
e7bf65	352	41	11.6	SubName: Full=Putative zonular occludens toxin-like protein;...
e5rm66	268	31	11.6	SubName: Full=Cytolethal distending toxin B;
e5rm61	268	31	11.6	SubName: Full=Cytolethal distending toxin B;
e5rm35	268	31	11.6	SubName: Full=Cytolethal distending toxin B;
e5r7q7	242	28	11.6	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e5r7q3	258	30	11.6	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e4lli2	225	26	11.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3q380	318	37	11.6	SubName: Full=Zeta toxin;
e0pe50	258	30	11.6	SubName: Full=Zeta-toxin;
d9xui4	285	33	11.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6t5n9	327	38	11.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d4ue97	327	38	11.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d4quq9	224	26	11.6	SubName: Full=Zeta toxin;
d4ltx2	378	44	11.6	SubName: Full=Predicted membrane protein, putative toxin reg...
d4f839	216	25	11.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d2psw5	311	36	11.6	SubName: Full=Zeta toxin family protein;
d1qye7	327	38	11.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d1qjx3	327	38	11.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d0fpp9	249	29	11.6	SubName: Full=Probable toxin transcriptional activator ToxR;...
c9m6s7	258	30	11.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
c8ml92	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8mck9	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m7q7	242	28	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m7q4	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m0m0	242	28	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m0l7	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lv20	242	28	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lv17	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lh33	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lh30	242	28	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l2z7	242	28	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l2z3	258	30	11.6	SubName: Full=Toxin beta-grasp domain-containing protein;
c5jx93	301	35	11.6	SubName: Full=Toxin biosynthesis protein;
c5g5t6	275	32	11.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c5a9q8	372	43	11.6	SubName: Full=Zonular occludens toxin;
b8qgz7	318	37	11.6	SubName: Full=Delta toxin;
b6sd13	329	38	11.6	SubName: Full=Cytolethal distending toxin subunit B;
a9lsg2	301	35	11.6	SubName: Full=Exfoliative toxin ExhB;
a6u2t1	242	28	11.6	SubName: Full=Toxin beta-grasp domain protein;
a6u2s9	258	30	11.6	SubName: Full=Toxin beta-grasp domain protein;
a6aes3	294	34	11.6	SubName: Full=Cholera toxin transcriptional activator;
a5kpw7	225	26	11.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
a5itz3	242	28	11.6	SubName: Full=Toxin, beta-grasp domain protein;
a5itz1	258	30	11.6	SubName: Full=Toxin, beta-grasp domain protein;
a5f2t8	294	34	11.6	SubName: Full=Cholera toxin transcriptional activator;
a2q922	310	36	11.6	SubName: Full=Function: A. alternata Akt3-1 is involved in A...
a2pbr6	294	34	11.6	SubName: Full=Cholera toxin transcriptional activator;
a1enq2	294	34	11.6	SubName: Full=Cholera toxin transcriptional activator;
r3s6u7	287	33	11.5	SubName: Full=Zeta-toxin;
r3ryy1	287	33	11.5	SubName: Full=Zeta-toxin;
r3rsw6	287	33	11.5	SubName: Full=Zeta-toxin;
r3nff3	287	33	11.5	SubName: Full=Zeta-toxin;
r1zft3	287	33	11.5	SubName: Full=Zeta-toxin;

r1xtu2	287	33	11.5	SubName: Full=Zeta-toxin;
r1wel1	287	33	11.5	SubName: Full=Zeta-toxin;
r1a1l7	260	30	11.5	SubName: Full=Toxin SpoIISA;
r0v8r9	591	68	11.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
q8gnj5	278	32	11.5	SubName: Full=Exfoliative toxin ExhC;
q7wdu4	227	26	11.5	SubName: Full=Pertussis toxin subunit 3;
q67uq2	358	41	11.5	SubName: Full=Os06g0651100 protein; SubName: Full=Putative N...
q5dz60	286	33	11.5	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
q4fqb6	364	42	11.5	SubName: Full=Probable toxin regulator pfoR;
q46669	269	31	11.5	RecName: Full=Cytolethal distending toxin subunit B; Short=C...
q1q8i9	364	42	11.5	SubName: Full=Putative toxin regulator PfoR;
p45784	252	29	11.5	RecName: Full=Type II secretion system protein N; Short=T2SS...
n4sqn0	304	35	11.5	SubName: Full=Zeta toxin family protein;
n4iv86	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3xjm9	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3wlb9	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3s8u0	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3pep6	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3mhy6	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3is98	304	35	11.5	SubName: Full=Zeta toxin family protein;
n3gww0	304	35	11.5	SubName: Full=Zeta toxin family protein;
n2mjp6	304	35	11.5	SubName: Full=Zeta toxin family protein;
m8rrv2	304	35	11.5	SubName: Full=Zeta toxin family protein;
m8pp42	304	35	11.5	SubName: Full=Zeta toxin family protein;
m7tqs7	270	31	11.5	SubName: Full=Putative toxin biosynthesis protein;
m3j3u5	296	34	11.5	SubName: Full=Cytolethal distending toxin subunit CdtB;
l2k953	287	33	11.5	SubName: Full=Zeta-toxin;
l1l7c5	287	33	11.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1l3r0	226	26	11.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k4u747	227	26	11.5	SubName: Full=Pertussis toxin subunit 3;
k4t863	226	26	11.5	SubName: Full=Pertussis toxin subunit 2;
k4q9u3	305	35	11.5	SubName: Full=K11041 exfoliative toxin A/B;
k2ucq4	477	55	11.5	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2akz1	331	38	11.5	SubName: Full=Rhizobiocin/RTX toxin;
k0ftu2	234	27	11.5	SubName: Full=Anthrax toxin A moiety lethal factor;
j9yx72	288	33	11.5	SubName: Full=Zeta toxin;
j7cj51	287	33	11.5	SubName: Full=Zeta toxin;
j7a5u8	287	33	11.5	SubName: Full=Zeta toxin;
j6zst5	287	33	11.5	SubName: Full=Zeta toxin;
j6ydj3	287	33	11.5	SubName: Full=Zeta toxin;
j6x740	287	33	11.5	SubName: Full=Zeta toxin;
j6rb54	287	33	11.5	SubName: Full=Zeta toxin;
j5vna7	312	36	11.5	SubName: Full=Zeta toxin;
i4l7r9	243	28	11.5	SubName: Full=Zeta toxin family protein;
i3cfh0	375	43	11.5	SubName: Full=Zonula occludens toxin; Flags: Precursor;
h5qmd8	304	35	11.5	SubName: Full=Zeta toxin family protein;
h5lel7	304	35	11.5	SubName: Full=Zeta toxin family protein;
g7b5r3	477	55	11.5	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g1zrs0	304	35	11.5	SubName: Full=Zeta toxin family protein;
g1zct1	304	35	11.5	SubName: Full=Zeta toxin family protein;
f8d2d7	235	27	11.5	SubName: Full=Anthrax toxin A moiety lethal factor; Flags: P...
f6m8n2	278	32	11.5	SubName: Full=Exfoliative toxin ExhC;
f4uw17	304	35	11.5	SubName: Full=Putative zeta-toxin;
f4ugw8	244	28	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f3zep3	279	32	11.5	SubName: Full=Putative xre family toxin-antitoxin system, an...
f0hbr7	253	29	11.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9x8d5	304	35	11.5	SubName: Full=Zeta toxin protein;
e9w155	304	35	11.5	SubName: Full=Zeta toxin protein;

e8qb96	305	35	11.5	SubName: Full=Putative exfoliative toxin;
e7jbk8	304	35	11.5	SubName: Full=Zeta toxin family protein;
e7itx5	304	35	11.5	SubName: Full=Zeta toxin family protein;
e7hv18	304	35	11.5	SubName: Full=Zeta toxin family protein;
e6i952	244	28	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e5a6x9	226	26	11.5	SubName: Full=Similar to cercosporin toxin biosynthesis prot...
e4lr30	314	36	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e4lc29	355	41	11.5	SubName: Full=Zeta toxin;
e4jjg6	287	33	11.5	SubName: Full=Zeta toxin;
e4j730	287	33	11.5	SubName: Full=Zeta toxin;
e4j0a0	287	33	11.5	SubName: Full=Zeta toxin;
e4ijn6	287	33	11.5	SubName: Full=Zeta toxin;
e4icc4	287	33	11.5	SubName: Full=Zeta toxin;
e3iex3	235	27	11.5	SubName: Full=Anthrax toxin A moiety lethal factor; Flags: P...
d7hkx1	288	33	11.5	SubName: Full=Cholera toxin transcriptional activator;
d6m2p2	286	33	11.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6lfk4	269	31	11.5	SubName: Full=Zeta-toxin;
d6e4s3	296	34	11.5	SubName: Full=Zonular occludens toxin (Zot);
d4uxd5	217	25	11.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3anr3	279	32	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1yie7	262	30	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1pgp4	288	33	11.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1mau9	287	33	11.5	SubName: Full=AM13; SubName: Full=Zeta toxin;
d1avh7	349	40	11.5	SubName: Full=Membrane protein putative toxin regulator-like...
c9lhj3	234	27	11.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7wlr8	287	33	11.5	SubName: Full=Zeta toxin;
c7gbr8	234	27	11.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
b8m6b8	358	41	11.5	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
b4dyv3	244	28	11.5	SubName: Full=Multidrug and toxin extrusion protein 1; SubNa...
b1mx04	349	40	11.5	SubName: Full=Predicted membrane protein, putative toxin reg...
b1kt89	244	28	11.5	SubName: Full=General secretion pathway protein E (Type II t...
a6zvn9	296	34	11.5	SubName: Full=Killer toxin;
r0nfs8	299	34	11.4	SubName: Full=Exfoliative toxin;
r0n029	299	34	11.4	SubName: Full=Exfoliative toxin;
r0mev4	299	34	11.4	SubName: Full=Exfoliative toxin;
r0m2g8	299	34	11.4	SubName: Full=Exfoliative toxin A;
r0m0v6	299	34	11.4	SubName: Full=Exfoliative toxin;
q9l878	263	30	11.4	SubName: Full=Cytolytic toxin Cyt2Ba8;
q97sg1	299	34	11.4	SubName: Full=Putative exfoliative toxin;
q04m64	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
n6rt96	315	36	11.4	SubName: Full=Exfoliative toxin A;
n6jb55	315	36	11.4	SubName: Full=Exfoliative toxin A;
n6dcc0	315	36	11.4	SubName: Full=Exfoliative toxin A;
n5ss30	315	36	11.4	SubName: Full=Exfoliative toxin A;
n5ndv6	315	36	11.4	SubName: Full=Exfoliative toxin A;
n4snf2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4rr51	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4r4t7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4qsg2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4psn9	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4m9p8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4lri0	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4kv78	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4k413	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4k0e1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4jvp7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4heu3	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4ct32	308	35	11.4	SubName: Full=Zeta toxin family protein;

n4cly5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4c5m8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4baz5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4b8v8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n4a177	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3zur6	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3z5m8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3yzj3	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3y007	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3wwv4	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3wur7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3vzt1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3vfi5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3uu06	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3uci8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3uak2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3t9l7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3t9k8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3se01	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3rl51	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3r4s1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3qrq3	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3qdx1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3psq7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3nf32	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3m7w2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3le53	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3i647	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3hbn8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3grg2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3fmv6	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3flt7	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3dtn5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3dhp9	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3dfa0	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3cay0	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3c780	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3btv6	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3ba02	308	35	11.4	SubName: Full=Zeta toxin family protein;
n3amg6	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2zzi2	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2zi19	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2yue0	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2yrc8	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2xcx1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2xay4	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2vks8	308	35	11.4	SubName: Full=Zonular occludens toxin family protein;
n2sbp3	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2pzs5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2nrs1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2llx4	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2lbg1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2kmy4	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2gks5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2g082	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2eph5	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2e7g0	308	35	11.4	SubName: Full=Zeta toxin family protein;
n2ddn4	308	35	11.4	SubName: Full=Zeta toxin family protein;

n2d706	308	35	11.4	SubName: Full=Zeta toxin family protein;
n1t6n1	308	35	11.4	SubName: Full=Zeta toxin family protein;
n1ssz6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9kwq3	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9jrz8	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9jqj3	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9ii36	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9ie20	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9i2r3	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9hjp9	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9g321	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9f9y6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9dv29	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9clg4	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9cgn4	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9bqr6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9ak44	308	35	11.4	SubName: Full=Zeta toxin family protein;
m9a6n4	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8xuu4	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8xg29	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8wvp8	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8wmb7	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8w8i9	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8v1y6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8uvk1	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8utb4	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8ujc6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8td98	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8sqb1	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8rml7	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8rk31	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8q5a1	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8klg0	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8khy6	308	35	11.4	SubName: Full=Zeta toxin family protein;
m8jrd7	308	35	11.4	SubName: Full=Zeta toxin family protein;
m7vf29	308	35	11.4	SubName: Full=Putative zeta toxin;
m7uv47	308	35	11.4	SubName: Full=Putative zeta toxin;
m4jgu6	308	35	11.4	SubName: Full=Putative zeta toxin poison-antidote element;
l7jnr0	343	39	11.4	SubName: Full=Zeta toxin family protein;
l7im98	343	39	11.4	SubName: Full=Zeta toxin family protein;
l7f7n1	367	42	11.4	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7d992	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
j8ycz5	395	45	11.4	SubName: Full=Zonula occludens toxin family protein;
j7qty7	308	35	11.4	SubName: Full=Putative zeta toxin poison-antidote element;
j7qay7	308	35	11.4	SubName: Full=Putative zeta toxin;
j7lfa8	378	43	11.4	SubName: Full=Zeta toxin family protein;
j4utv1	255	29	11.4	SubName: Full=Mosquitocidal toxin protein;
j4pje3	237	27	11.4	SubName: Full=Zeta toxin;
j2ish5	428	49	11.4	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
j2dsz6	308	35	11.4	SubName: Full=Zeta toxin family protein;
j1uh06	299	34	11.4	SubName: Full=Exfoliative toxin A; EC=3.1.26.4;
j1hhv1	299	34	11.4	SubName: Full=Exfoliative toxin A; EC=3.1.26.4;
i8f5g3	308	35	11.4	SubName: Full=Zonular occludens toxin family protein;
i7l8e4	229	26	11.4	SubName: Full=Diphtheria toxin repressor; SubName: Full=Unch...
i6fr60	308	35	11.4	SubName: Full=Zeta toxin family protein;
i3a880	308	35	11.4	SubName: Full=Zeta toxin;
i2xqa4	308	35	11.4	SubName: Full=Zeta toxin;
i2wgi8	308	35	11.4	SubName: Full=Zeta toxin;

i2vkz4	308	35	11.4	SubName: Full=Zeta toxin;
i2uz63	308	35	11.4	SubName: Full=Zeta toxin;
i2ubj3	308	35	11.4	SubName: Full=Zeta toxin;
i2txi5	308	35	11.4	SubName: Full=Zeta toxin;
i2tp80	308	35	11.4	SubName: Full=Zeta toxin;
i2t582	308	35	11.4	SubName: Full=Zeta toxin;
i2ssv1	315	36	11.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2sr90	308	35	11.4	SubName: Full=Zeta toxin;
i2sid3	308	35	11.4	SubName: Full=Zeta toxin;
i0xda1	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
i0vxx6	308	35	11.4	SubName: Full=Zeta toxin family protein;
h8lib3	299	34	11.4	SubName: Full=Exfoliative toxin A;
h5ri09	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5r2n0	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5q8x8	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5psz2	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5pch3	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5nxp2	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5nhh7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5n1w9	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5m8w5	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5lv24	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5l1s7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5km21	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5k6t7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5jbx4	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5j9m6	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5is23	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5ibm3	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5hxj4	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5hfk4	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5h003	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5gkd8	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5g555	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5fmp7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5f7d7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5ea86	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5dsi9	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5d0y4	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5cuw4	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5c4i5	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5bz12	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5bi90	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5b2l7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h5a539	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4zm47	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4z4c0	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4yp29	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4y9h7	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4xtr1	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4wzc1	308	35	11.4	SubName: Full=Zeta toxin family protein;
h4gg18	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h4fxe0	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h3zvp8	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h3ypa7	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h3xt86	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h3xem7	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
h1tfu2	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;

h0d013	308	35	11.4	SubName: Full=Toxin, beta-grasp domain protein;
g4n7k6	343	39	11.4	SubName: Full=Zeta toxin family protein;
g2d715	308	35	11.4	SubName: Full=Zeta toxin family protein;
g2bx87	308	35	11.4	SubName: Full=Zeta toxin family protein;
g2ans0	308	35	11.4	SubName: Full=Zeta toxin family protein;
g2a7e9	308	35	11.4	SubName: Full=Zeta toxin family protein;
g1yh72	308	35	11.4	SubName: Full=Zeta toxin family protein;
f8x8l0	308	35	11.4	SubName: Full=Zeta toxin family protein;
f4fp16	308	35	11.4	SubName: Full=Staphylococcal enterotoxin-like toxin;
f4ac06	289	33	11.4	SubName: Full=Putative epsilon-toxin type B;
f3pyj4	271	31	11.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
e9tkd4	308	35	11.4	SubName: Full=Zeta toxin;
e9pa30	289	33	11.4	SubName: Full=K-2 killer toxin; Flags: Precursor;
e8zn10	315	36	11.4	SubName: Full=Exfoliative toxin A;
e7hdh6	308	35	11.4	SubName: Full=Zeta toxin family protein;
e4sws2	351	40	11.4	SubName: Full=Predicted membrane protein, putative toxin reg...
e1isa9	308	35	11.4	SubName: Full=Zeta toxin;
e1h335	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
e0ts71	299	34	11.4	SubName: Full=Exfoliative toxin A;
e0nwu1	273	31	11.4	SubName: Full=Zeta-toxin;
e0j0h3	308	35	11.4	SubName: Full=Putative zeta toxin; SubName: Full=Uncharacter...
d9nyu6	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
d9ntw7	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
d9nmq1	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
d9nf15	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
d9n895	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
d8epb6	308	35	11.4	SubName: Full=Zeta toxin;
d8ea82	308	35	11.4	SubName: Full=Zeta toxin;
d7yiq3	308	35	11.4	SubName: Full=Zeta toxin;
d7j307	367	42	11.4	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d6lwz0	315	36	11.4	SubName: Full=Exfoliative toxin A/B;
d6izg6	315	36	11.4	SubName: Full=Exfoliative toxin;
d6hg16	315	36	11.4	SubName: Full=Exfoliative toxin A/B;
d6gze1	315	36	11.4	SubName: Full=Putative exfoliative toxin;
d5k9g5	402	46	11.4	SubName: Full=Zeta_2 toxin;
d5k9e4	402	46	11.4	SubName: Full=Zeta_2 toxin;
d2yk20	273	31	11.4	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
d2urc1	315	36	11.4	SubName: Full=Putative exfoliative toxin;
d2nta5	324	37	11.4	SubName: Full=RTX toxins;
d2gqp3	315	36	11.4	SubName: Full=Putative exfoliative toxin;
d2g8x2	315	36	11.4	SubName: Full=Exfoliative toxin;
d2fuj9	315	36	11.4	SubName: Full=Putative exfoliative toxin;
d2fcb4	315	36	11.4	SubName: Full=Exfoliative toxin A/B;
d2f667	315	36	11.4	SubName: Full=Exfoliative toxin A/B;
d2ert4	299	34	11.4	SubName: Full=Putative exfoliative toxin;
d1eby3	402	46	11.4	SubName: Full=Zeta toxin family protein;
c9qi52	229	26	11.4	SubName: Full=Cholera toxin transcriptional activator; SubNa...
c9m1m3	219	25	11.4	SubName: Full=Xre family toxin-antitoxin system;
c8ar56	315	36	11.4	SubName: Full=Exfoliative toxin;
c8ak50	315	36	11.4	SubName: Full=Exfoliative toxin;
c8ab38	315	36	11.4	SubName: Full=Exfoliative toxin;
c8a357	315	36	11.4	SubName: Full=Exfoliative toxin;
c7zwb9	315	36	11.4	SubName: Full=Exfoliative toxin;
c1cps0	299	34	11.4	SubName: Full=Exfoliative toxin A;
c1c5e7	299	34	11.4	SubName: Full=Exfoliative toxin A;
b9rcq4	343	39	11.4	SubName: Full=Nadhp hc toxin reductase, putative; EC=1.1.1.2...
b5gia4	271	31	11.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5e7f1	299	34	11.4	SubName: Full=Exfoliative toxin A, putative;

b3wj85	308	35	11.4	SubName: Full=Putative zeta toxin;
b3igl4	308	35	11.4	SubName: Full=Putative zeta toxin;
b3i356	308	35	11.4	SubName: Full=Putative zeta toxin;
b3hep8	308	35	11.4	SubName: Full=Putative zeta toxin;
b2e7a3	299	34	11.4	SubName: Full=Exfoliative toxin A;
b2e1h8	299	34	11.4	SubName: Full=Exfoliative toxin A;
a8y0l5	377	43	11.4	RecName: Full=GDP-mannose 4,6 dehydratase 1; EC=4.2.1.47; Al...
a8a7c2	308	35	11.4	SubName: Full=Putative zeta toxin;
a7zup1	308	35	11.4	SubName: Full=Putative zeta toxin;
a6qe81	308	35	11.4	SubName: Full=Staphylococcal enterotoxin-like toxin;
a5mj08	299	34	11.4	SubName: Full=Exfoliative toxin, putative;
r1bm61	230	26	11.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9anx9	221	25	11.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q8p1b0	302	34	11.3	SubName: Full=Putative exfoliative toxin;
q8k7u0	302	34	11.3	SubName: Full=Putative exfoliative toxin;
q8gnj6	301	34	11.3	SubName: Full=Exfoliative toxin ExhB;
q4lau4	442	50	11.3	SubName: Full=Putative zonula occludens toxin;
q182u3	248	28	11.3	SubName: Full=Clostridium difficile binary toxin regulatory ...
q05938	292	33	11.3	RecName: Full=Cholera toxin homolog transcriptional activato...
p19972	222	25	11.3	RecName: Full=Salt-mediated killer protoxin 1; Contains: Rec...
p09616	319	36	11.3	RecName: Full=Alpha-hemolysin; Short=Alpha-HL; AltName: Full...
o82881	346	39	11.3	RecName: Full=mRNA endoribonuclease LsoA; EC=3.1.-.-; AltNam...
m7kca9	327	37	11.3	SubName: Full=Toxin coregulated pilus biosynthesis protein F...
m5kme7	256	29	11.3	SubName: Full=Zeta toxin;
l8t5m5	327	37	11.3	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
l8nbl3	408	46	11.3	SubName: Full=Toxin module HipA-like protein;
l7ff79	283	32	11.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1l7t0	283	32	11.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kyu2	292	33	11.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k7rac6	239	27	11.3	SubName: Full=Zeta toxin;
k0lm55	353	40	11.3	SubName: Full=MW1800 protein; SubName: Full=Toxin regulatory...
j2t8l5	300	34	11.3	SubName: Full=Zeta toxin;
j0waf2	381	43	11.3	SubName: Full=Membrane protein, toxin regulator;
i6y0k5	337	38	11.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
i6gcx7	310	35	11.3	SubName: Full=Zeta toxin family protein;
i2qh86	239	27	11.3	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i1b782	310	35	11.3	SubName: Full=Putative zeta toxin poison-antidote element;
i0sx35	256	29	11.3	SubName: Full=Zeta toxin;
h8f766	302	34	11.3	SubName: Full=Exfoliative toxin A;
h8agv4	265	30	11.3	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h5mna1	310	35	11.3	SubName: Full=Zeta toxin family protein;
h5es84	310	35	11.3	SubName: Full=Zeta toxin family protein;
h1uy49	318	36	11.3	SubName: Full=Zeta toxin;
h1snq8	239	27	11.3	SubName: Full=Toxin, beta-grasp domain protein;
h0c7f3	239	27	11.3	SubName: Full=Toxin, beta-grasp domain protein;
g7c4v8	327	37	11.3	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g7b5r9	327	37	11.3	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g6z4q7	327	37	11.3	SubName: Full=Vibrio cholerae toxin co-regulated pilus biosy...
g4c137	238	27	11.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g0ugk2	382	43	11.3	SubName: Full=Membrane protein, toxin regulator;
f9jxt2	239	27	11.3	SubName: Full=Toxin, beta-grasp domain protein;
f8irg4	256	29	11.3	SubName: Full=Zeta toxin;
f7r1e6	363	41	11.3	SubName: Full=Putative toxin regulator;
f4vm09	310	35	11.3	SubName: Full=Putative zeta-toxin;
f3zdw3	275	31	11.3	SubName: Full=Putative xre family toxin-antitoxin system, an...
f3uwz1	256	29	11.3	SubName: Full=Zeta-toxin;
f2gb24	239	27	11.3	SubName: Full=Zeta toxin;
f0xft7	388	44	11.3	SubName: Full=Killer toxin sensitivity protein;

e7nvs5	257	29	11.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e3zpv3	257	29	11.3	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e1vvw6	310	35	11.3	SubName: Full=Zeta toxin-like protein;
d9wls8	284	32	11.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wes2	364	41	11.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9rm13	353	40	11.3	SubName: Full=Toxin regulatory protein;
d9rb40	353	40	11.3	SubName: Full=Toxin regulatory protein;
d7w2u6	292	33	11.3	SubName: Full=Fic family toxin-antitoxin system;
d4s2r8	274	31	11.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d2rcy8	239	27	11.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c8vq62	265	30	11.3	SubName: Full=Toxin biosynthesis protein, putative (AFU_orth...
c8mcl3	239	27	11.3	SubName: Full=Toxin beta-grasp domain-containing protein;
c6pzx8	247	28	11.3	SubName: Full=Phage protein; SubName: Full=Toxin-antitoxin s...
c2lhq0	335	38	11.3	SubName: Full=Toxin;
b8cv11	353	40	11.3	SubName: Full=Toxin secretion, membrane fusion protein;
b7m7t2	310	35	11.3	SubName: Full=Putative zeta toxin; poison-antidote element;
b7law4	310	35	11.3	SubName: Full=Putative zeta toxin poison-antidote element;
b4ez45	335	38	11.3	SubName: Full=Putative toxin;
a2qlz8	282	32	11.3	SubName: Full=Similarity to hypothetical host-specific AK-to...
a0kw86	238	27	11.3	SubName: Full=Zeta toxin family protein;
r4fkj4	134	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
r4ewu0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4eqb5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4emz3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4de93	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4cw14	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4b6n2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4avg2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4al48	322	36	11.2	SubName: Full=Exfoliative toxin A;
r4ae77	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3zpi2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3zkw9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3zil2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3z3i4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3yzg7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3y2l0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3xtt6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3xtp7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3xl48	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3xa87	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3vtc8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3vjp8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3v6q6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3v154	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3uvh4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3ti90	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3sv16	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3sr95	99	24	11.2	SubName: Full=Zeta-toxin;
r3s8e3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3rw72	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3rt66	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3rlp7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3q0c7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3pnd7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3p9t0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3p3b9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3nb50	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3mjr5	322	36	11.2	SubName: Full=Exfoliative toxin A;

r3mjc6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3mf65	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3lq63	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3lht8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3la48	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3l321	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3kqy1	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3kpy8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3kh04	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3k4z9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3jzd8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3jwy6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3jfc2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3j6c6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3ivb3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3i2k9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3i1l2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3hve4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3htw0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3hap9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3h4x0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3gm48	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3glx1	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3gk92	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3gbe6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3g0t5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3fkb2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3fk50	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3fev7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3ezg5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3eva3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3efi9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3e696	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3e3x2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3e3j3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3dq56	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3dpm5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3d9i0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3cvl2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3cqs7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3cnn9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3cfm2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3azx3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3apr9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3afz0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r3ac01	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2zw15	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2zjp8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2zfs3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2z5c8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ysy7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2x2q2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2wds6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2vzq9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2vj82	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2vcn2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2v380	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ut46	322	36	11.2	SubName: Full=Exfoliative toxin A;

r2ugg1	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ua21	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2tl29	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ti72	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2td19	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2reb6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2q879	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2pvj7	129	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
r2nyi3	139	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
r2ng14	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2n5q4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2mtq1	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2mgg7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2lyh6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ly13	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2l1g8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2kz01	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2k1x3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2jry5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2jmx4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2jdl3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2iyy8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2iwp2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2it75	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2iks8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ie21	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2i8q3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2hyh5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2hm58	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2h0v0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2gt16	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2g8r0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2fzq3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ftq0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ffx2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2f3q0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2f1g9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2ev35	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2dwe5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2dm12	322	36	11.2	SubName: Full=Exfoliative toxin A;
r2cix5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1xx97	258	29	11.2	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1xq66	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1x3w9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1wz85	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1wys3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1wtt8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1wrt9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1vxt5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1vqb6	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1vid3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1ve19	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1utn9	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1up05	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1tzw7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1txx8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1thc3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1tdp2	322	36	11.2	SubName: Full=Exfoliative toxin A;

r1ta31	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1sg06	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1s6n7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1s190	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1rxu0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1rq31	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1rj50	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qym7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qxs0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qs78	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qqw8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qk28	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1qdi5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1q727	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1pjq2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1piv2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1p0w7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1nyb2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1nr07	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1nkw8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1n6n8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1mwz5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1mwg5	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1mfx7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1mcu2	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1lk54	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1kzu3	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1kvc8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1ka96	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1k8g7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1k5x0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1jv34	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1jt95	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1jpr7	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1jgh0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1j7z8	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1ivd1	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1iht4	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1i3a0	322	36	11.2	SubName: Full=Exfoliative toxin A;
r1gsl2	95	24	11.2	SubName: Full=Putative structural toxin protein;
r1gm80	196	24	11.2	SubName: Full=Putative cercosporin toxin biosynthesis protei...
r0yc14	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xiy7	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xiw2	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0wue5	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0wrz1	192	24	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0wl04	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0wje8	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0wa65	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0w888	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0vnv4	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0v8d1	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0uuf5	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0up27	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0uc86	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0q9x3	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0q0l9	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0pyc3	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...

r0pbz1	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0npv7	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0n8j5	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0ebb1	109	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
r0e8t9	87	24	11.2	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
r0c4k6	142	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
r0bnt1	142	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
r0al38	142	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
q9yd10	139	24	11.2	RecName: Full=Probable ribonuclease VapC3; Short=Probable RN...
q9v0i4	156	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9njc7	85	24	11.2	RecName: Full=Toxin Bmka2; AltName: Full=Alpha-neurotoxin Tx...
q9gyx2	85	24	11.2	RecName: Full=Toxin BmKa1; AltName: Full=Alpha-toxin 1; AltN...
q9gng8	85	24	11.2	RecName: Full=Toxin BmKaTX15; AltName: Full=Alpha-neurotoxin...
q9f5r4	276	31	11.2	SubName: Full=Toxin co-regulated pilus virulence regulatory ...
q9f5q9	277	31	11.2	SubName: Full=Toxin co-regulated pilus virulence regulatory ...
q9f5q7	276	31	11.2	SubName: Full=Toxin co-regulated pilus virulence regulatory ...
q9agw9	489	55	11.2	SubName: Full=Toxin-coregulated pilus biosynthesis outer mem...
q9agw7	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q9a9x0	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9a4f4	92	24	11.2	RecName: Full=Toxin RelE3;
q98cn2	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q90x24	146	24	11.2	RecName: Full=Snake venom vascular endothelial growth factor...
q8z3y7	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q8pki6	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8gj13	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
q8flw1	102	24	11.2	SubName: Full=Uncharacterized protein; SubName: Full=Xre fam...
q8f5l2	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8ej37	164	24	11.2	SubName: Full=Toxin-antitoxin system toxin GNAT family;
q8e892	99	24	11.2	SubName: Full=Toxin-antitoxin system antidote component HigA...
q8e846	103	24	11.2	SubName: Full=ISSpu16 toxin-antitoxin system toxin RelE fami...
q8dr23	303	34	11.2	SubName: Full=Exfoliative toxin A;
q87ek0	160	24	11.2	SubName: Full=Toxin;
q838c5	322	36	11.2	SubName: Full=Exfoliative toxin A, putative;
q82vl5	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7z1k5	85	24	11.2	RecName: Full=Toxin Cl16; Flags: Precursor;
q7wjm2	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7w9a2	241	27	11.2	SubName: Full=Putative toxin;
q7vyq9	241	27	11.2	SubName: Full=Putative toxin;
q7tyd2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7tyb7	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7njx3	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7bgc5	489	55	11.2	SubName: Full=Toxin-coregulated pilus biosynthesis outer mem...
q79ec5	103	24	11.2	RecName: Full=Toxin ParE; AltName: Full=Gyrase inhibitor Par...
q76ca1	86	24	11.2	RecName: Full=Gigantoxin-1; AltName: Full=EGF-like peptide t...
q746j0	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q746f8	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q72qj7	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6upc3	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
q6u619	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6niz7	204	24	11.2	SubName: Full=Putative diphtheria toxin repressor 2;
q6j936	146	24	11.2	RecName: Full=Snake venom vascular endothelial growth factor...
q6d394	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q67uq3	269	30	11.2	SubName: Full=NADPH HC toxin reductase-like;
q5yyd5	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5xut7	160	24	11.2	SubName: Full=ApxIIC; SubName: Full=RTX-II toxin-activating ...
q5qjp0	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q5q031	124	24	11.2	SubName: Full=Toxin B subunit;
q5pl36	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

q5phn0	240	27	11.2	RecName: Full=Guanine nucleotide exchange factor sopE2; AltN...
q5jiu2	148	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5f882	139	24	11.2	RecName: Full=Toxin FitB; AltName: Full=Probable ribonucleas...
q5dz56	259	29	11.2	SubName: Full=Toxin coregulated pilus biosynthesis protein T...
q57k83	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q573h7	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q56635	124	24	11.2	SubName: Full=Cholera toxin; Flags: Precursor;
q53w54	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q52338	103	24	11.2	SubName: Full=DNA gyrase inhibitor; SubName: Full=Plasmid st...
q4w8a5	190	24	11.2	SubName: Full=Cytolethal distending toxin C;
q4ulm1	141	24	11.2	SubName: Full=Toxin of toxin-antitoxin system;
q4lct2	81	24	11.2	RecName: Full=Toxin-like peptide AaF1CA5; Flags: Precursor;
q4j7h4	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q4hp20	203	24	11.2	SubName: Full=Toxin ABC transporter, ATP-binding/permease pr...
q4hg81	179	24	11.2	SubName: Full=Cytolethal distending toxin C;
q3jb47	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3asd0	109	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q39gm7	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j9r3	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q27yz2	94	24	11.2	SubName: Full=Toxin fusion protein;
q216k0	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q213f6	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1qex6	103	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE;
q1qbq3	95	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE;
q1nw57	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ns11	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nlg9	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1mm79	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1h5l1	85	24	11.2	SubName: Full=Na+ channel toxin;
q1b0f3	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q139e3	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q12a07	151	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q11ah5	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0gy46	87	24	11.2	RecName: Full=Potassium channel toxin Ttr-beta-KTx; Short=Tt...
q0fmm3	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0e6b3	103	24	11.2	SubName: Full=RE toxin;
q07l18	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q03n32	93	24	11.2	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
p95023	139	24	11.2	RecName: Full=Probable ribonuclease VapC39; Short=Probable R...
p95005	125	24	11.2	RecName: Full=Probable ribonuclease VapC19; Short=Probable R...
p80076	66	24	11.2	RecName: Full=Toxin Cn3; Short=Toxin 3; AltName: Full=Toxin ...
p78737	178	24	11.2	SubName: Full=A necrosis toxin; SubName: Full=Ptr necrosis t...
p73415	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p65044	147	24	11.2	RecName: Full=Probable VapC ribonuclease Mb2897; Short=Proba...
p65043	147	24	11.2	RecName: Full=Probable ribonuclease VapC43; Short=Probable R...
p63019	67	24	11.2	RecName: Full=Alpha-toxin Cn12;
p60275	63	24	11.2	RecName: Full=Insect toxin TbIT-1; AltName: Full=P-Ins-beta*...
p60212	87	24	11.2	RecName: Full=Alpha-toxin To2; AltName: Full=Alpha-toxin Tc4...
p59357	66	24	11.2	RecName: Full=Alpha-like toxin Lqh7; AltName: Full=Lqh VII; ...
p45664	87	24	11.2	RecName: Full=Toxin CngtIII; Flags: Precursor;
p33647	116	24	11.2	RecName: Full=mRNA interferase ChpB; EC=3.1.-.-; AltName: Fu...
p29481	489	55	11.2	RecName: Full=Toxin coregulated pilus biosynthesis outer mem...
p20897	202	24	11.2	RecName: Full=Snake venom metalloproteinase HT-2; Short=SVMP...
p16461	168	24	11.2	RecName: Full=Leukotoxin-activating lysine-acyltransferase L...
p0ch41	67	24	11.2	RecName: Full=Beta-mammal toxin CeII9;
p0c5i9	85	24	11.2	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3g; Flag...
p0c5i8	85	24	11.2	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3f; Flag...
p0c5i6	85	24	11.2	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3d; Flag...

p0c5i4	85	24	11.2	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3b; Flag...
p0a3i4	160	24	11.2	RecName: Full=RTX-II toxin-activating lysine-acyltransferase...
p0a3i3	160	24	11.2	RecName: Full=RTX-II toxin-activating lysine-acyltransferase...
p06736	170	24	11.2	RecName: Full=Hemolysin-activating lysine-acyltransferase Hl...
p01491	86	24	11.2	RecName: Full=Beta-toxin CsEI; Short=CsE-I; AltName: Full=Ne...
o66399	144	24	11.2	RecName: Full=Probable ribonuclease VapC1; Short=Probable RN...
o50461	97	24	11.2	RecName: Full=Toxin RelE; EC=3.1.-.-; AltName: Full=Putative...
o33827	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o28590	156	24	11.2	RecName: Full=Probable VapC ribonuclease AF_1683; Short=Prob...
n6vdp9	258	29	11.2	SubName: Full=Type III cytolethal distending toxin protein C...
n6uep5	242	27	11.2	SubName: Full=CtxA-like, cholera toxin A subunit;
n4t1y5	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4rw51	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4qd30	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4ncl4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4mfj3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4lwx2	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4lgn1	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4ii42	126	24	11.2	SubName: Full=Toxin doc;
n4idb2	126	24	11.2	SubName: Full=Toxin doc;
n4i402	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4hac2	126	24	11.2	SubName: Full=Toxin doc;
n4gdf8	126	24	11.2	SubName: Full=Toxin doc;
n4g157	126	24	11.2	SubName: Full=Toxin doc;
n4fbn0	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4f835	126	24	11.2	SubName: Full=Toxin doc;
n4f2s4	126	24	11.2	SubName: Full=Toxin doc;
n4ep98	126	24	11.2	SubName: Full=Toxin doc;
n4e0c8	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n4dww5	126	24	11.2	SubName: Full=Toxin doc;
n4ddp2	126	24	11.2	SubName: Full=Toxin doc;
n4cv79	126	24	11.2	SubName: Full=Toxin doc;
n3zeg8	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3y1s5	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3xy55	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3x081	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3wpk8	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3w953	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3w7c8	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3v707	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3uyn3	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3uxm6	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3u4y7	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3trh5	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3t807	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3t035	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3qz85	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3qpj6	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n3pw24	126	24	11.2	SubName: Full=Toxin doc;
n3mhb9	126	24	11.2	SubName: Full=Toxin doc;
n3mfb3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3lwy9	126	24	11.2	SubName: Full=Toxin doc;
n3l0q4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3kyl6	126	24	11.2	SubName: Full=Toxin doc;
n3jmd8	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3evf1	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3ebi0	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3cx45	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...

n3ceq5	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3bmx8	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3bff1	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3azv8	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3ahh7	126	24	11.2	SubName: Full=Toxin doc;
n2zqw3	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2zl00	125	24	11.2	SubName: Full=Toxin CbtA;
n2z0u9	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2yzz2	125	24	11.2	SubName: Full=Toxin CbtA;
n2ywy9	125	24	11.2	SubName: Full=Toxin CbtA;
n2y144	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2y012	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2xk78	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2xj87	125	24	11.2	SubName: Full=Toxin CbtA;
n2xfc1	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2xb26	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2x8x5	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2x4e3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2x391	125	24	11.2	SubName: Full=Toxin CbtA;
n2vku6	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2vdv1	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2vak3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2uvp2	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2ua65	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2tt11	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2tjq2	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2rtj8	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2rch6	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2r009	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2q2e8	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2pgt5	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2mrv7	154	24	11.2	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2mrc3	154	24	11.2	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2iv54	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2ith5	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2id91	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2hr07	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n2hpp1	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2hha2	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2gia4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2g201	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2frt1	126	24	11.2	SubName: Full=Toxin doc;
n2edp1	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2bpp5	154	24	11.2	SubName: Full=Toxin YhaV;
n1wpa5	117	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
n1tc22	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
n1sha8	126	24	11.2	SubName: Full=Toxin doc;
n1nma4	144	24	11.2	SubName: Full=Ribosome association toxin RatA;
n1mnt6	111	24	11.2	SubName: Full=Death on curing protein, Doc toxin;
n0cws5	167	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
m9vf70	134	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
m9lwx6	110	24	11.2	SubName: Full=Toxin ChpA;
m9l6w4	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m9kz54	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9k015	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9jz23	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9jvf6	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9jja0	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...

m9ii72	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9ica1	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m9hz21	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9gyd0	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9f3d6	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9exy7	96	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
m9e8b8	356	40	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9cic5	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m9bjf1	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9bh04	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m9az32	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9amg6	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9akr4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9aef3	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8yln2	154	24	11.2	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8xwl3	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8wlw9	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8tt89	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8s6h2	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8rqz9	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8rhi3	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
m8qpe3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8kb19	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8da24	102	24	11.2	SubName: Full=Toxin;
m8cj47	147	24	11.2	SubName: Full=Toxin;
m7v4j8	104	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
m7usz3	104	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
m7rnw8	140	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
m7rlg3	171	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
m7m1i6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7ll22	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7l0h5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7kr52	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7kdt0	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7k214	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7jvm1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7jdh1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7j6g5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7irg0	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7ii90	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7i7z2	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7hfz4	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7hc36	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7gyz7	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7gtw6	489	55	11.2	SubName: Full=Toxin-coregulated pilus biosynthesis outer mem...
m7g962	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
m7fgv3	93	24	11.2	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
m6yvp4	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6xzi2	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6wmu0	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6w9u4	199	24	11.2	SubName: Full=Toxin HINT domain protein;
m6mcx0	115	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6jsq9	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6g9n9	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6djc7	148	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6d4c5	123	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6c0p6	138	24	11.2	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5vh44	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...

m5j783	105	24	11.2	SubName: Full=Transcriptional modulator of maze/toxin, mazf;...
m5fix1	98	24	11.2	SubName: Full=Toxin higB-2;
m5dwk1	116	24	11.2	SubName: Full=Programmed cell death toxin YdcE;
m5b752	114	24	11.2	SubName: Full=Toxin/antitoxin system;
m4zmv6	208	24	11.2	SubName: Full=Toxin-like outer membrane protein;
m4xjl3	138	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
m4ih25	143	24	11.2	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
m3th84	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3lb37	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m3l3r5	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m3kr70	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m3k946	215	24	11.2	SubName: Full=Cytolethal distending toxin protein A;
m3jwm5	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m3ij74	132	24	11.2	SubName: Full=Toxin-antitoxin protein;
m3hzt0	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3hus5	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3g783	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3g3y2	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m3f0a3	69	24	11.2	SubName: Full=Toxin-antitoxin system toxin component;
m3en36	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3ekg5	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3e3a4	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2zrl4	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2y4c4	117	24	11.2	SubName: Full=RelE-like cytotoxic translational repressor of...
m2nvs9	116	24	11.2	SubName: Full=Toxin ChpB;
m2n1q4	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m2ak62	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1t2n8	258	29	11.2	SubName: Full=Cytolethal distending toxin subunit A;
m1lzw0	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1jev7	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1itb5	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ind6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1imi9	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1img6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1iga4	117	24	11.2	SubName: Full=Toxin;
m0qaa5	162	24	11.2	SubName: Full=Toxin-antitoxin biofilm protein TabA;
m0nze5	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ntu9	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0n6e3	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0n187	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0jza5	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ej80	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dna6	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0cfc2	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9u005	242	27	11.2	SubName: Full=Toxin beta-grasp domain-containing protein;
l9twa3	156	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l9n8y7	178	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9if14	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
l9he77	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
l9bs21	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
l9b1p4	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
l9ah92	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
l8zig2	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
l8vf14	169	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8vb68	169	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8va10	153	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
l8uw12	153	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
l8u4i2	175	24	11.2	SubName: Full=Cytolethal distending toxin protein C;

l8tgn3	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8t1j4	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8ssz9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8s8j0	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8s0l1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8rkl7	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8rch6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8qzf1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8qrx4	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
l8pfh1	105	24	11.2	SubName: Full=Putative Xre family toxin-antitoxin system, an...
l8nuy1	94	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
l8nlw6	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8mtw6	116	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
l8m9a1	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8m609	146	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
l8m3a0	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lvp6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lg39	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8la20	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8l3m5	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8jt35	123	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8ep03	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8d767	105	24	11.2	SubName: Full=CcdB toxin protein;
l7zd11	104	24	11.2	SubName: Full=Toxin of gyrase inhibiting toxin-antitoxin sys...
l7hhq8	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7faj2	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fag1	213	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component family...
l7f1g7	276	31	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7ex98	285	32	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7e2p0	119	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7dyr6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l7d4r8	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
l6y0w6	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5uzm1	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5tzj3	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5syh4	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5sw29	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5sia1	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5sel3	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5rvz6	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5ru52	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5rrm5	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5rcf8	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5r0b9	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5qxz8	192	24	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5qlc6	192	24	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5qgp4	192	24	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5qc53	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5py13	192	24	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5pu95	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5pi93	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5pc72	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5pb88	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5kxk3	202	24	11.2	SubName: Full=Multidrug and toxin extrusion protein 2;
l5ifw4	125	24	11.2	SubName: Full=Toxin YeeV;
l5hu74	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l5cpp3	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l5ak44	126	24	11.2	SubName: Full=Toxin doc;

l4vvg8	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4ti78	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4suv5	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4re47	126	24	11.2	SubName: Full=Toxin doc;
l4pw70	126	24	11.2	SubName: Full=Toxin doc;
l4lfr4	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4jq93	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4i2b1	125	24	11.2	SubName: Full=Toxin YeeV;
l4h7g3	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4ghp7	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4ezy0	125	24	11.2	SubName: Full=Toxin YeeV;
l4eht2	125	24	11.2	SubName: Full=Toxin YeeV;
l4eay9	125	24	11.2	SubName: Full=Toxin YeeV;
l4e750	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4e368	125	24	11.2	SubName: Full=Toxin YeeV;
l4c7v4	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l4aw75	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l3tf66	126	24	11.2	SubName: Full=Toxin doc;
l3q953	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l3ph16	95	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l3ngf4	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l3l8w0	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l3kst5	126	24	11.2	SubName: Full=Toxin doc;
l3hxw7	122	24	11.2	SubName: Full=Toxin YkfI;
l3hv64	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3fed2	125	24	11.2	SubName: Full=Toxin YeeV;
l3eni1	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2zpv4	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l2xry7	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l2v789	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l2utj7	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2kx28	258	29	11.2	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2f0j7	322	36	11.2	SubName: Full=Exfoliative toxin A, putative;
l2eth4	322	36	11.2	SubName: Full=Exfoliative toxin A, putative;
l1z3l4	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
l1qwx6	277	31	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l1qis7	102	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1q6w5	154	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
l1p1p1	148	24	11.2	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
l1nfw1	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1mxu8	140	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
l1mbx8	100	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l1kne9	97	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
l1kjh5	285	32	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1hy84	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1ca69	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
l1abn5	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
l0szv7	97	24	11.2	SubName: Full=RTX-I toxin determinant D;
l0su84	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0r742	95	24	11.2	SubName: Full=Putative toxin Y4kP;
l0r137	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qzc7	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qu15	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qt98	166	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qr04	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qm15	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qlx5	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qhx4	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0qfx4	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qcn2	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qbr1	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qag9	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q8f2	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q8a7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q3i7	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q2v5	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pzh0	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pyh8	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pxr8	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pws0	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nwm5	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nw48	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nvq1	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nsj6	97	24	11.2	SubName: Full=TOXIN RELE;
l0mnx9	159	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0lgs6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kgv9	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0k592	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0jul4	97	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
l0jel9	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0j5h2	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ifz1	133	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
l0h345	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gu65	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0de25	91	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9zhm1	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zfd4	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zad2	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9yuj7	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
k9xwd6	121	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9wrx8	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9w4v3	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vbl3	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9v6a8	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9uxf2	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ug13	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9u349	110	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9tm80	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9rtm6	138	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9rqt7	134	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9qks4	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qb54	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ps77	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9prg1	109	24	11.2	SubName: Full=MazE/toxin transcriptional modulator MazF prot...
k9pp80	148	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ply5	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9phf8	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9pbx2	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p6a8	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9nik4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9hbs0	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9cbk4	178	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k9c5l0	118	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k9btq8	178	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8zg47	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8zcx0	175	24	11.2	SubName: Full=Toxin-antitoxin toxin gnat family;

k8rc58	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8n8e6	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8mec9	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k8lq90	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k8l6j8	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8kmx1	181	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8kax3	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8k0v7	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8j7k9	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8j3m5	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8iip3	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8gq94	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8da60	95	24	11.2	SubName: Full=HigB toxin protein;
k8d8c8	95	24	11.2	SubName: Full=HigB toxin protein;
k8cyz0	95	24	11.2	SubName: Full=HigB toxin protein;
k8cg64	95	24	11.2	SubName: Full=RelE antibacterial toxin protein;
k8cc46	95	24	11.2	SubName: Full=HigB toxin protein;
k8c928	95	24	11.2	SubName: Full=HigB toxin protein;
k8bhw5	95	24	11.2	SubName: Full=HigB toxin protein;
k7zfc6	80	24	11.2	SubName: Full=Putative antitoxin of toxin-antitoxin system P...
k7rj34	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wrd3	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wq77	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ts52	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6tl88	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6p6d4	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6nci6	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6lyp9	251	28	11.2	SubName: Full=Zeta toxin;
k6kd78	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6iiv7	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6hy34	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6hgd2	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k6gt17	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6g3d5	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6fbe7	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6f7g9	98	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k6f613	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ek29	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6che9	150	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5ysr1	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5hig2	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
k5gwh2	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
k5f7j0	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
k5e2d2	178	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k4z1f4	322	36	11.2	SubName: Full=Exfoliative toxin A;
k4whi2	125	24	11.2	SubName: Full=Hemolysin toxin protein;
k4ulf8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4tks1	241	27	11.2	SubName: Full=Putative toxin;
k4tg36	99	24	11.2	SubName: Full=Pertussis toxin transport protein;
k4tg32	269	30	11.2	SubName: Full=Pertussis toxin subunit 1; EC=2.4.2.-;
k4t754	241	27	11.2	SubName: Full=Putative toxin;
k4qxe2	172	24	11.2	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
k4kbp5	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component;
k4igc8	154	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin transcriptio...
k3hrb9	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
k2xey3	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2wrt4	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2wj76	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...

k2vxa8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2v6t4	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2ttp9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
k2q5y9	136	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
k2pmj0	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2p214	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2jw17	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2g2h2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2eh18	122	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k2bkc2	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2akx1	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2aig3	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1zsx2	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1wcq6	111	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1ubp2	110	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
k1rc97	130	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k1ltd9	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1bj28	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1b9a7	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1aj10	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0yx22	151	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
k0qq32	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k0qfv1	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k0q0m3	164	24	11.2	SubName: Full=Putative RTX toxins and related Ca2+-binding p...
k0pvf9	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0p137	165	24	11.2	SubName: Full=Toxin-activating lysine-acyltransferase;
k0mwd9	241	27	11.2	SubName: Full=Putative toxin;
k0jte6	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0fvt9	160	24	11.2	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
j8yi84	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8yfe8	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
j8y994	412	46	11.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
j8y7y1	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8xyj1	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8x966	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8x804	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wza3	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wx43	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wun4	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wp06	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wb06	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8wa29	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
j8w8z8	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8w6p9	107	24	11.2	SubName: Full=Toxin MazF; EC=3.1.-.-;
j8vma7	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8vb18	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8tzv9	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
j8sym6	148	24	11.2	SubName: Full=Putative toxin YfjG;
j8h9x0	165	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j7z0k5	141	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j7vg64	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7tuk3	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7qn60	241	27	11.2	SubName: Full=Putative toxin;
j7qmg0	155	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7li28	366	41	11.2	SubName: Full=Zeta toxin family protein;
j7l568	89	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
j7hij5	79	24	11.2	SubName: Full=Salivary toxin-like peptide;
j7hbt1	75	24	11.2	SubName: Full=Salivary toxin-like peptide;

j7c655	111	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
j7aqz4	139	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j6xyu3	152	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6tbx7	139	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j6slb9	139	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j6pau5	141	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j6dja6	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5xpx5	114	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5w4l6	97	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
j5u8s6	139	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j5pq59	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5dhe2	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5az64	154	24	11.2	SubName: Full=Toxin with endonuclease activity YhaV;
j4six8	107	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j4j6t3	154	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3p3w0	392	44	11.2	SubName: Full=Uncharacterized protein; SubName: Full=Zeta to...
j3jaa3	260	29	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j3ijw8	84	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3gwx9	84	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3gfn6	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3del5	160	24	11.2	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j3d3q9	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3d0z4	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3a077	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2zdr7	74	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j2xt20	149	24	11.2	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2tki2	94	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
j2rib3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
j2m9e7	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
j2lcq0	141	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
j2l532	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2jmm5	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2jl81	89	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
j2iiv7	124	24	11.2	SubName: Full=Putative toxin YpjF domain protein;
j2huw4	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j2dme5	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2aqh4	148	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2a4b8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j2a0g6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1ytr1	145	24	11.2	SubName: Full=Ribosome association toxin RatA;
j1wzv9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1wpf5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1w0m7	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1vs20	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1ucl5	84	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
j1qr06	232	26	11.2	SubName: Full=Diphtheria toxin repressor;
j1nq07	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1nkx2	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1m890	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1khw5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1hch7	75	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
j1gdr8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1fg05	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1f6s5	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1dxf9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1cnw6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
j1b611	164	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1acd4	84	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;

j1a285	164	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0zvr9	213	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j0z9c3	164	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0y5a7	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0xxc8	175	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0vk38	175	24	11.2	SubName: Full=Toxin-antitoxin toxin gnat family;
j0usc5	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0rn85	175	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0plp1	175	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0pj00	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0llg4	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0kqs8	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0gtm6	164	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0gri0	163	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
j0g4t3	175	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0fy90	213	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j0eql4	164	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0dxx8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0drq9	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0d660	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0c4v5	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0bw34	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0blm3	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0bfr0	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j0aen0	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9zfx0	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9zba8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9z1h7	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9xub5	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9xu09	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9wxl7	117	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin MazF;
i9vxf2	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9v1l7	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9rqb5	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9pki1	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9nfa1	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9m896	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9m7g2	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9kvj7	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9j2f2	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9hdg3	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9ff27	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9d612	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i9buc0	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8qmg1	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i7v6s5	128	24	11.2	SubName: Full=Putative toxin YfjG;
i7l441	107	24	11.2	SubName: Full=Toxin mazF; EC=3.1.-.-;
i7j1p3	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ya22	97	24	11.2	SubName: Full=Toxin;
i6y7y6	117	24	11.2	SubName: Full=Toxin;
i6y4f4	102	24	11.2	SubName: Full=Toxin;
i6y115	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xfj2	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xei7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x1r5	151	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i6rnw9	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6r2y9	97	24	11.2	SubName: Full=Toxin;
i6qzv0	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

i6qtl1	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6g1l3	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6fp88	126	24	11.2	SubName: Full=Toxin doc;
i6ee65	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6duj5	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6d4x4	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6cgv3	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6bmx8	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6bmg6	129	24	11.2	SubName: Full=Putative toxin YfjG;
i6bfu3	129	24	11.2	SubName: Full=Putative toxin YfjG;
i5pdf0	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
i5l5k9	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
i5l4g3	129	24	11.2	SubName: Full=Ribosome association toxin RatA;
i5b8r2	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4x0t4	151	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4weg9	153	24	11.2	SubName: Full=Zeta toxin;
i4mv00	140	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
i4mr60	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4j1a0	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
i4imq8	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ilq2	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ik37	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ijj8	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ihs5	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ihe4	107	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4hnc5	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hjp3	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hcn9	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hbt4	117	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4gwe2	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gv39	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gln8	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gjk6	107	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4gbf2	117	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4g8l0	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fyh2	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fx04	107	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4fwh7	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fj04	107	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4fak8	118	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4el18	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4e8m5	107	24	11.2	SubName: Full=Toxin mazF; EC=3.1.-.-;
i4e6d6	124	24	11.2	SubName: Full=Toxin mazF; EC=3.1.-.-;
i4bae1	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b1n7	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zw79	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3yhe2	87	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
i3y8a0	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x4q0	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3w3c6	95	24	11.2	SubName: Full=StbE replicon stabilization toxin;
i3w0b6	89	24	11.2	SubName: Full=YoeB toxin protein;
i3tsa5	100	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
i3aym3	83	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i2xrn2	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i2xhh9	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
i2wfq7	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
i2t3u8	258	29	11.2	SubName: Full=Cytolethal distending toxin A/C family;
i2t1w8	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein; EC=2...

i2stv4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
i2srj8	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i2s887	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein; EC=2...
i2run6	96	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i2qmt3	123	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2p3j6	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
i2dwa4	121	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i1xjv1	149	24	11.2	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i1b5u6	133	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i0zwm1	105	24	11.2	SubName: Full=Antitoxin of the YpjF-YfjZ toxin-antitoxin sys...
i0xx02	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0xqg3	92	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i0xlx3	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0xlk3	145	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
i0xd30	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
i0xa66	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0vu96	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i0mwd0	147	24	11.2	SubName: Full=Shiga-like toxin A subunit;
i0mcs7	147	24	11.2	SubName: Full=Shiga-like toxin A subunit;
i0kxz5	181	24	11.2	SubName: Full=Toxin of the toxin-antitoxin genome stability ...
i0ija6	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0i851	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0a5n8	147	24	11.2	SubName: Full=SciR Shiga-like toxin A subunit;
h9zuj6	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z793	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z0f5	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8jv58	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
h8jv54	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h8i3v1	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i3t5	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hvv0	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8htp1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hqn1	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hql6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ew49	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8euc2	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eu72	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8eu52	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8dhr5	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h8axd7	189	24	11.2	SubName: Full=Cytolethal distending toxin C;
h7zn43	171	24	11.2	SubName: Full=Cytolethal distending toxin;
h7wtz5	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7wp32	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7wj53	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7vyr9	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7ud25	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7u7d4	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7twh6	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7trs1	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7tiu8	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7tcc6	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7t911	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7r3i9	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7qws2	190	24	11.2	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7qiq8	126	24	11.2	SubName: Full=Zeta toxin family protein;
h7m614	126	24	11.2	SubName: Full=Zeta toxin family protein;
h7f0v0	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h7egk2	158	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;

h7e704	171	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h7c8i0	269	30	11.2	SubName: Full=Cytolethal distending toxin B;
h6sf34	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6sf15	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s5p2	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rvi3	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6ru82	143	24	11.2	SubName: Full=Putative Cytotoxic translational repressor of ...
h6rt77	83	24	11.2	SubName: Full=Putative Cytotoxic translational repressor of ...
h6rm65	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6qyn8	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6p122	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h6myv6	240	27	11.2	SubName: Full=Putative metal dependent repressor, diptheria ...
h5xgi6	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5taj6	115	24	11.2	SubName: Full=Toxin higB-2;
h5smh7	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5s9w6	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5qc65	133	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5q3h3	133	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5jm59	129	24	11.2	SubName: Full=Putative toxin YfjG;
h5itf5	126	24	11.2	SubName: Full=Toxin doc;
h5inm1	129	24	11.2	SubName: Full=Putative toxin YfjG;
h5idd7	199	24	11.2	SubName: Full=Toxin B domain protein;
h5i2q4	96	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
h5d7z6	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
h5cel8	104	24	11.2	SubName: Full=ChpB toxin of the ChpB-ChpS toxin-antitoxin sy...
h5b7b8	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
h5aic2	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
h4z7r8	126	24	11.2	SubName: Full=Toxin doc;
h4yq87	126	24	11.2	SubName: Full=Toxin doc;
h4wl57	126	24	11.2	SubName: Full=Toxin doc;
h4vzw6	129	24	11.2	SubName: Full=Putative toxin YfjG;
h4vk24	129	24	11.2	SubName: Full=Putative toxin YfjG;
h4p1p4	258	29	11.2	SubName: Full=Cytolethal distending toxin A/C family protein...
h4g4u3	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h4f812	89	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
h3yvw7	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h3yqt4	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h3yca3	164	24	11.2	SubName: Full=Toxin, OB domain protein;
h3y022	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h3xuu7	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h3u7x1	165	24	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h3rl28	93	24	11.2	SubName: Full=HigB family toxin protein;
h3kzt2	112	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
h3khm2	100	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
h2cjq0	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1zzi5	86	24	11.2	RecName: Full=Toxin Tpa4; AltName: Full=T-alpha* NaTx3.7; Fl...
h1zzh8	85	24	11.2	RecName: Full=Toxin To9; AltName: Full=T-alpha* NaTx3.8; Fla...
h1ybl5	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1ybk4	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1xn80	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1wcc2	111	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1usy4	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1tfe9	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h1snq7	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h1lfp3	126	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h1knh4	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1k8u5	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1k0e6	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h1ivl8	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0ulw0	93	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
h0t458	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0rut3	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0rh66	96	24	11.2	SubName: Full=Putative toxin;
h0qg86	116	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
h0pl67	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0p765	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0p3t3	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0nej8	108	24	11.2	SubName: Full=CP4-6 prophage, toxin of the YkfI-YafW toxin-a...
h0hik5	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0g5b1	165	24	11.2	SubName: Full=Putative toxin-activating lysine-acyltransfera...
h0fwp6	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0e7m1	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0baq7	92	24	11.2	SubName: Full=RelE/StbE family addiction module toxin protei...
h0b0j1	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
h0a3a1	190	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h0a0y9	131	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9zrp0	131	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
g9z2r3	130	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9yy26	167	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9yfp1	126	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9y741	180	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9xwh7	175	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9wm61	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9vi23	137	24	11.2	SubName: Full=Putative pertussis-like toxin subunit;
g8zd70	312	35	11.2	SubName: Full=Putative MosT toxin component;
g8zcz1	312	35	11.2	SubName: Full=Putative MosT toxin component;
g8zcx9	312	35	11.2	SubName: Full=Putative MosT toxin component;
g8ntt8	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8nnv8	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7zpf5	133	24	11.2	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
g7z6t3	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7z3l5	120	24	11.2	SubName: Full=Putative plasmid maintenance toxin (MazE-like)...
g7xzf8	429	48	11.2	SubName: Full=Toxin biosynthesis protein;
g7vam3	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7urj9	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7tmz7	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7tmz3	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7rv59	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qus1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qqw4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qqu4	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qhd5	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gma2	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7ehr4	174	24	11.2	SubName: Full=Exfoliative toxin A/B;
g7c4v2	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7bu99	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7bgk5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7av70	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7aln9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7aaj1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g7a1b5	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g6zqt3	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g6zd84	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g6z4q1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
g6y446	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6myp1	126	24	11.2	SubName: Full=Zeta toxin family protein;

g6i7a6	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6efs5	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6anr5	92	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
g5uke2	93	24	11.2	SubName: Full=RelE/StbE family addiction module toxin;
g5sns4	143	24	11.2	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
g5rk60	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5qk52	148	24	11.2	SubName: Full=Putative pertussis-like toxin subunit;
g5n302	109	24	11.2	SubName: Full=YfjZ toxin protein;
g5jtx0	114	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g5jeg6	137	24	11.2	SubName: Full=Death on curing protein, Doc toxin;
g5gxj4	155	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g5c5k6	192	24	11.2	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
g4t436	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4t296	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4sux0	87	24	11.2	SubName: Full=Putative toxin of toxin-antitoxin;
g4j461	107	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g4f978	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4df94	88	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g4day3	113	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g4ca94	101	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g4c9l4	140	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g4c7l2	73	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
g4c4u6	171	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g4ajc8	175	24	11.2	SubName: Full=Cytolethal distending toxin protein C;
g3zyi5	175	24	11.2	SubName: Full=Cytolethal distending toxin protein C;
g3jay4	128	24	11.2	SubName: Full=Killer toxin, Kp4;
g3iyi2	110	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g2uw78	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uux8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uuw2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2t164	110	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g2spy8	90	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component;
g2pzc4	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g2n370	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mzg1	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mze2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2gxd8	146	24	11.2	SubName: Full=Putative toxin-antitoxin system toxin componen...
g2gaa9	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2f796	105	24	11.2	SubName: Full=CP4-57 prophage; antitoxin of the YpjF-YfjZ to...
g2f2c3	116	24	11.2	SubName: Full=Toxin ChpB;
g2a3y0	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
g1yxi6	258	29	11.2	SubName: Full=Cytolethal distending toxin A/C family protein...
g1ygt6	258	29	11.2	SubName: Full=Cytolethal distending toxin A/C family protein...
g1yd92	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
g1wj46	101	24	11.2	SubName: Full=Txe/YoeB family addiction module toxin;
g0z025	203	24	11.2	SubName: Full=Enterotoxin-like toxin X;
g0tq28	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tq08	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tka3	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tfh1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tfc8	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jtk3	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jtg6	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0j2m9	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hzf1	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hme1	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0gvb5	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0ful9	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

g0efl5	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0efh5	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0a4w0	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0a1i0	128	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f9zuy3	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zux6	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zfy2	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uwu3	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uuz0	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uux0	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uhm0	115	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f9ugk3	165	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9u6w3	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
f9u689	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9qxz0	116	24	11.2	SubName: Full=Toxin ChpB;
f9qwk9	105	24	11.2	SubName: Full=CP4-57 prophage; antitoxin of the YpjF-YfjZ to...
f9pfs1	109	24	11.2	SubName: Full=Zeta toxin domain protein;
f9l1i0	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9kyj2	154	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f9knu1	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9kcq8	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
f9jyc0	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9jxt1	242	27	11.2	SubName: Full=Toxin, beta-grasp domain protein;
f9jqy5	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9d123	141	24	11.2	SubName: Full=PIN family toxin-antitoxin system; SubName: Fu...
f9c559	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f9b8s1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f9a322	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f8zty8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f8zj41	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f8z7q3	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f8yws3	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
f8xil0	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f8x9m5	114	24	11.2	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f8m498	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2q0	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2n0	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8gu31	123	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8eyb8	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8ddt1	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8ayg3	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8awy6	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8auv9	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7yqg2	153	24	11.2	SubName: Full=RTX family toxin-activating lysine-acyltransfe...
f7wy04	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wvv0	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wvt5	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wis6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wgp2	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wgm7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7vh16	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7unb7	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7n7t6	157	24	11.2	SubName: Full=RTX toxin Ca2+-binding protein;
f7n7t4	148	24	11.2	SubName: Full=RTX toxin Ca2+-binding protein;
f6edi4	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dxr5	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6djj3	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dcu0	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f6cq83	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cep7	125	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f6c2v4	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6b944	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6ayb2	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6aus4	94	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
f5z2h2	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5z214	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5ywi3	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xyu9	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xtp1	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5x0w4	224	25	11.2	SubName: Full=Zeta toxin family protein;
f5x0l2	113	24	11.2	SubName: Full=PemK family toxin;
f5tve6	137	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f5sdc4	146	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
f5lm96	192	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5i5a5	181	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5hum6	181	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5hib2	178	24	11.2	SubName: Full=Host-selective toxin;
f5cpe5	86	24	11.2	SubName: Full=Putative three finger toxin;
f5cpd3	85	24	11.2	RecName: Full=Three finger toxin MALT0044C; AltName: Full=MA...
f5bqe2	133	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4xya6	98	24	11.2	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
f4xgn8	184	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f4xf69	145	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4w3e7	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4v9s5	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4v571	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4u9d5	145	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4tya6	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4tnh6	116	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4t7q1	175	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
f4t6x7	126	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4syd2	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4sn09	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4n1c4	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4lt97	185	24	11.2	SubName: Full=Programmed cell death toxin YdcE; SubName: Ful...
f4lh04	241	27	11.2	SubName: Full=Putative toxin;
f4hmp1	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4b4z1	132	24	11.2	SubName: Full=VapC-type toxin;
f3xrh4	143	24	11.2	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f3uea9	195	24	11.2	SubName: Full=HicB family toxin-antitoxin system;
f3tl72	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3tkb6	260	29	11.2	SubName: Full=Exfoliative toxin B; EC=3.4.21.-;
f3t427	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3ssi9	167	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3sa96	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3s7e6	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3qlc1	98	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f3nsd6	155	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3nma8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3mct6	149	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3mc02	165	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3ke82	105	24	11.2	SubName: Full=CcdB-like toxin protein;
f2vay0	117	24	11.2	SubName: Full=Toxin;
f2v8b4	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v5m1	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v558	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f2v4u3	97	24	11.2	SubName: Full=Toxin;
f2uxl0	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2tgw9	357	40	11.2	SubName: Full=Toxin biosynthesis protein;
f2gpc4	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gh29	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gh11	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2b9e8	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1yw95	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1tfi9	134	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
f0z2j1	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f0z1v6	141	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f0ywx4	155	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f0td75	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0nnp3	130	24	11.2	SubName: Full=VapC-type toxin;
f0nlj3	145	24	11.2	SubName: Full=VapC-type toxin;
f0nd48	145	24	11.2	SubName: Full=VapC-type toxin;
f0n2c5	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0myt5	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0mwl1	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0mh86	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0leq5	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0hsq9	170	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f0hrh1	108	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f0gcn9	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0azb4	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0am22	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0abu7	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
f0a4u4	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
e9zv07	115	24	11.2	SubName: Full=Putative plasmid toxin protein PemK;
e9zmv8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zly2	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zlw3	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zk45	117	24	11.2	SubName: Full=Toxin protein;
e9zi29	97	24	11.2	SubName: Full=Toxin protein;
e9v2z0	105	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e9uui0	268	30	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9uuc0	83	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e9uhs4	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9tur8	203	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e9t978	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9fjv5	249	28	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e8x3b8	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8ww81	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8wnd5	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8wex9	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8w2v7	86	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
e8v8p3	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8uzf3	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8rmx0	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8pqj7	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8ntc8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e8mxv2	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8lh36	195	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e8lh12	130	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e8lg23	134	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e8kvf2	258	29	11.2	SubName: Full=Zeta-toxin;
e7qye4	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7nbh9	161	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...

e7n7w9	125	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e7n6f7	120	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e7myv4	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e7mut5	156	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e7mtu0	242	27	11.2	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e7mgz1	242	27	11.2	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e7me77	156	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e7mct8	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e7gqz4	163	24	11.2	SubName: Full=GNAT family Toxin-antitoxin system;
e7a495	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6x208	91	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
e6vnb9	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6vjb8	126	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6ua15	137	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e6rzc5	142	24	11.2	SubName: Full=Cytolethal distending toxin C;
e6nv65	116	24	11.2	SubName: Full=Toxin ChpB;
e6mui4	115	24	11.2	SubName: Full=PemK protein; SubName: Full=Putative plasmid t...
e6lqp0	90	24	11.2	SubName: Full=Fic family toxin-antitoxin system;
e6ljc4	143	24	11.2	SubName: Full=HicB family toxin-antitoxin system;
e6ihu9	144	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6g8q7	167	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6fmr9	167	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6dty6	83	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6bms0	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6anp5	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6a7k9	203	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e5zz27	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e5zns6	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5u4d8	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5sym6	140	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e5cjh3	168	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e5aue3	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4sb41	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e4s423	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e4q799	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e4q3t3	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e4nwt6	94	24	11.2	SubName: Full=Cytotoxic translational repressor of toxin-ant...
e4lr80	137	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e4lmr2	106	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4lfa8	116	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4iq63	136	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4hhr7	139	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4f1a2	83	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4bg99	139	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4aes5	139	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e3ybq7	153	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3r6k1	110	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e3r5x8	125	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e3j4g5	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3idf8	151	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e3gev4	178	24	11.2	SubName: Full=Toxin-antitoxin system;
e3g1h7	175	24	11.2	SubName: Full=RTX toxin-activating protein C;
e3efw3	141	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e3c5b7	108	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2zi91	109	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
e2z4d8	152	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e2z119	142	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component family...
e2yxk5	322	36	11.2	SubName: Full=C4-dicarboxylate transporter/malic acid transp...

e2x2w5	100	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e2wl15	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wk35	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wk20	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wib6	117	24	11.2	SubName: Full=Toxin;
e2wgb0	97	24	11.2	SubName: Full=Toxin;
e2wcr0	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w8x8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w810	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w7z4	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w6d3	117	24	11.2	SubName: Full=Toxin;
e2w1k7	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vxs3	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vwu3	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vws7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vv55	117	24	11.2	SubName: Full=Toxin;
e2vt56	97	24	11.2	SubName: Full=Toxin;
e2vnp4	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vnm7	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vl59	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2viv7	117	24	11.2	SubName: Full=Toxin;
e2vc42	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vb64	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vb47	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v9i1	117	24	11.2	SubName: Full=Toxin;
e2v7j7	97	24	11.2	SubName: Full=Toxin;
e2v0w9	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uzb5	117	24	11.2	SubName: Full=Toxin;
e2uxs1	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uxq9	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uwa3	97	24	11.2	SubName: Full=Toxin;
e2upq2	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2unq4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2unn5	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2um15	117	24	11.2	SubName: Full=Toxin;
e2udi2	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uc48	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uc32	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uah8	117	24	11.2	SubName: Full=Toxin;
e2u1e8	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u1d1	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u0w1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tz48	117	24	11.2	SubName: Full=Toxin;
e2tx62	97	24	11.2	SubName: Full=Toxin;
e2tq79	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tp94	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tp77	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tml1	117	24	11.2	SubName: Full=Toxin;
e2tkp7	97	24	11.2	SubName: Full=Toxin;
e2teg4	97	24	11.2	SubName: Full=Toxin;
e2td28	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tbt3	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tbr6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ta67	117	24	11.2	SubName: Full=Toxin;
e2sln9	186	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2pge7	143	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e2nnx9	178	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2cd00	196	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...

e1yx01	104	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1yqd4	145	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1yk63	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1sxe6	136	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e1nqi8	92	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
e1mgf8	120	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1mg05	108	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1kuc8	116	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e1jkj0	161	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1jan3	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1iwe0	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1hcw7	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hc01	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hby3	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hab3	117	24	11.2	SubName: Full=Toxin;
e1h8a5	97	24	11.2	SubName: Full=Toxin;
e1h5j0	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1fft4	136	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e0z560	178	24	11.2	SubName: Full=Necrosis inducing host-selective toxin ToxA;
e0ue86	114	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e0u7c9	121	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e0r7c3	114	24	11.2	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
e0qtf5	120	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0qpk4	189	24	11.2	SubName: Full=PIN family toxin-antitoxin system;
e0qey4	176	24	11.2	SubName: Full=Cytolethal distending toxin C;
e0n2k2	159	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
e0mu12	115	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0j2i8	104	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
e0hcg7	142	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component family...
e0g0m7	115	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0fix9	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0f6n0	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0elv3	104	24	11.2	SubName: Full=RTX-I toxin determinant A from serotypes 5/10;...
e0efd8	190	24	11.2	SubName: Full=RTX-III toxin-activating lysine-acyltransferas...
d9y461	141	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d9x2h3	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9wsy4	132	24	11.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9w7u6	167	24	11.2	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d9tfl8	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d9rux6	111	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d9ruq2	132	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d9qkf4	152	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8n5p5	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8k3h4	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8jcq1	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8hl35	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8g5m6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8fer6	185	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d8fe21	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8fdz1	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8fdl2	136	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8f7t9	137	24	11.2	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
d8f708	166	24	11.2	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d8f6x7	129	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8f3x6	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8ez49	168	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8ev71	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8ed58	93	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...

d8ce74	203	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d8bkf9	203	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7zlv1	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7z2b0	203	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7y5w6	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7y5a6	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7xui2	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7vgg1	113	24	11.2	SubName: Full=Addiction module toxin RelE;
d7iq80	104	24	11.2	SubName: Full=Toxin-antitoxin system toxin component;
d7imv6	99	24	11.2	SubName: Full=Toxin-antitoxin system toxin component;
d7ikg9	285	32	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7i8f1	127	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7hlb5	136	24	11.2	SubName: Full=Toxin-coregulated pilus biosynthesis protein H...
d7hlb1	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
d7evl5	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7eup4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7eum6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cuy6	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cuu9	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cu73	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cpk5	146	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6v4h2	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6srx8	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6skj9	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6kld1	142	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6kcp2	128	24	11.2	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d6k6b8	278	31	11.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6k3t2	286	32	11.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6jmb2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6h4q7	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d6fyt9	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fys0	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fr87	97	24	11.2	SubName: Full=Toxin;
d6fp63	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fka6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fjb4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fj95	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f3j9	97	24	11.2	SubName: Full=Toxin;
d6cug8	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6b9m5	81	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component;
d5zw98	155	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zk64	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zj67	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zj47	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z757	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z654	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yvf6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yuv9	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yue9	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yke2	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yii0	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yi10	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y6w1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y5d4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y5b8	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xxl4	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xwj2	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xwh2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d5wtl2	114	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
d5re03	152	24	11.2	SubName: Full=Fic family toxin-antitoxin system;
d5pe24	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5nwd3	286	32	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d5mll1	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mky1	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5miz4	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4xdh7	199	24	11.2	SubName: Full=GNAT family toxin-antitoxin system;
d4x4n7	152	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4ue45	166	24	11.2	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
d4u0y9	126	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d4tw28	88	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4tlg6	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4mpv1	140	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
d4m5a5	151	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
d4ff67	125	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4fe53	110	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4eyz9	322	36	11.2	SubName: Full=Putative exfoliative toxin A;
d4epl5	322	36	11.2	SubName: Full=Putative exfoliative toxin A;
d4ea17	138	24	11.2	SubName: Full=Dermonecrotic toxin;
d4cyg3	127	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4cqm8	95	24	11.2	SubName: Full=Toxin-antitoxin system protein;
d4cpa3	78	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4ckr8	163	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4c231	129	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4btn1	129	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4bpw4	114	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4bp09	107	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4bgn0	174	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d3y4l3	322	36	11.2	SubName: Full=Necrotic enteritis toxin B;
d3vfy8	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3t2j2	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3rtx0	87	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
d3rmf5	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pkf0	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3p850	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3l5t9	259	29	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3l0x5	137	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3f6d8	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3af57	131	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
d3acp1	188	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2zs29	145	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d2zmy2	192	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d2zcn7	172	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2uv94	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2tas4	146	24	11.2	SubName: Full=Cholera toxin transcriptional activator;
d2seq0	126	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2rcr8	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d2r4w2	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2mjk8	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2gm12	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2fym4	163	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d2ayi1	110	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d1yg78	241	27	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1w8s0	115	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1w6p8	111	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1twr0	187	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
d1trt9	86	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...

d1rye5	159	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1qss4	135	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1pq95	331	37	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d1pae9	109	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1nzj4	101	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1dd78	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1d5g7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1c0g1	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bz30	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1byx2	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1ag91	138	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
d0ysf2	155	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d0ys54	111	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d0yru5	120	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0yre0	87	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
d0yqa3	108	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d0wiu8	112	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d0wh42	135	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0wcq4	139	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d0vxy8	276	31	11.2	SubName: Full=Exfoliative toxin;
d0hrr2	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d0h649	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c9z734	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9z4b3	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9x7c4	147	24	11.2	SubName: Full=Putative shiga-like toxin A subunit;
c9x4k3	83	24	11.2	RecName: Full=Toxin TdNa5; AltName: Full=T-Arthr*-beta* NaTx...
c9wye3	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9sxm0	114	24	11.2	SubName: Full=Structural toxin protein RtxA;
c9r0y5	105	24	11.2	SubName: Full=CP4-57 prophage antitoxin of the YpjF-YfjZ tox...
c9n0y2	109	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c9m6z4	187	24	11.2	SubName: Full=Toxin-antitoxin system protein;
c9m5l0	135	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c9ly89	119	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
c9lwm5	202	24	11.2	SubName: Full=Helix-turn-helix domain protein; SubName: Full...
c9lp70	147	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c9ldq6	179	24	11.2	SubName: Full=Putative toxin-antitoxin system protein;
c9l9w0	125	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c9klu7	189	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9kj01	136	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9ca79	187	24	11.2	SubName: Full=Zeta toxin;
c8xtg4	322	36	11.2	SubName: Full=Necrotic enteritis toxin B; SubName: Full=NetB...
c8ura4	126	24	11.2	SubName: Full=Toxin of P1 addiction system;
c8pub7	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8p967	108	24	11.2	SubName: Full=Xre family toxin-antitoxin system;
c8p913	111	24	11.2	SubName: Full=Xre family toxin-antitoxin system;
c8mfm1	153	24	11.2	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c8mcl2	242	27	11.2	SubName: Full=Toxin beta-grasp domain-containing protein;
c7vr65	322	36	11.2	SubName: Full=Exfoliative toxin A;
c7s9y5	138	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c7qya7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7qwr3	233	26	11.2	SubName: Full=Addiction module toxin, Txe/YoeB family;
c7ng63	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7ng57	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7h3f3	154	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component domain...
c7gd11	170	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
c7g5d1	99	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7c9y5	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7b1e8	258	29	11.2	SubName: Full=Cholera toxin A subunit;

c6yev8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
c6yev4	136	24	11.2	SubName: Full=Toxin-coregulated pilus biosynthesis protein H...
c6w0t0	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6udk5	124	24	11.2	SubName: Full=Toxin of the YeeV-YeeU toxin-antitoxin system;...
c6rw12	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c6pv68	140	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c6efs6	119	24	11.2	SubName: Full=DNA-binding transcriptional activator; SubName...
c6dww6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6duc5	97	24	11.2	SubName: Full=Toxin;
c6dqd8	117	24	11.2	SubName: Full=Toxin;
c6dmg7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dme8	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dh63	348	39	11.2	SubName: Full=Zonular occludens toxin; Flags: Precursor;
c6c2z7	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5whb6	313	35	11.2	SubName: Full=Putative exfoliative toxin;
c5g2b6	120	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c5f0g5	182	24	11.2	SubName: Full=Cytolethal distending toxin CdtC;
c5a4a2	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4zyq8	105	24	11.2	SubName: Full=CP4-57 prophage; antitoxin of the YpjF-YfjZ to...
c4zra0	116	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
c4xdl8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4tiu2	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
c4tis4	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
c4kac0	106	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
c4fmj6	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3wiu3	269	30	11.2	SubName: Full=Zeta-toxin;
c3we82	149	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
c3nt71	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3nt67	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3lt82	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
c3lt78	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3kns8	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3k0b9	135	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2krw3	120	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2jzf2	347	39	11.2	SubName: Full=Possible membrane protein, probable toxin regu...
c2jp61	322	36	11.2	SubName: Full=Exfoliative toxin A; SubName: Full=TDT family ...
c2ja22	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ja19	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2igm8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2igm4	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2h0w0	322	36	11.2	SubName: Full=Exfoliative toxin A; SubName: Full=TDT family ...
c1mf68	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1afy8	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1af17	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1aez7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0xmt4	92	24	11.2	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
c0pxm3	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c0bcy9	132	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c0b9m5	127	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
c0b4j5	146	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
b9mky1	147	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b9m785	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jzq2	88	24	11.2	SubName: Full=Addiction module toxin Txe/YoeB family;
b8xh11	84	24	11.2	SubName: Full=Putative depressant toxin Tx67;
b8xh01	98	24	11.2	RecName: Full=Lipolysis-activating peptide 1-alpha chain; Sh...
b8iwm2	97	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
b8ivj2	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8hl87	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

b8h6r2	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8h361	98	24	11.2	SubName: Full=Toxin protein higB;
b8h2c1	92	24	11.2	SubName: Full=Toxin protein relE-3;
b8h210	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8glv3	122	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8glf9	126	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8f429	118	24	11.2	SubName: Full=Growth inhibitor, PemK-like, autoregulated/tra...
b8esn0	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8ep85	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8enn5	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7tgy7	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgx7	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgx2	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgw2	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7lmq8	124	24	11.2	SubName: Full=RelE protein putative cytotoxic translational ...
b7l382	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7kv44	126	24	11.2	SubName: Full=RelE-like cytotoxic translational repressor of...
b7k6m2	102	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b7fdp2	87	24	11.2	RecName: Full=Toxin Css39.8; Flags: Precursor;
b7a6u5	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd28	120	24	11.2	RecName: Full=U13-lycotoxin-Ls1b; AltName: Full=Toxin-like s...
b6dd25	120	24	11.2	RecName: Full=U13-lycotoxin-Ls1f; AltName: Full=Toxin-like s...
b6dd24	120	24	11.2	RecName: Full=U13-lycotoxin-Ls1e; AltName: Full=Toxin-like s...
b6dcw9	76	24	11.2	RecName: Full=U7-lycotoxin-Ls1c; AltName: Full=Toxin-like st...
b6dcw8	78	24	11.2	RecName: Full=U7-lycotoxin-Ls1h; AltName: Full=Toxin-like st...
b6dcw1	78	24	11.2	RecName: Full=U7-lycotoxin-Ls1a; AltName: Full=Toxin-like st...
b6c1x8	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6a556	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6a2z7	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6a2x1	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5zmb4	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5wiy2	116	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b5w7d2	148	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5w6g1	111	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5qks7	347	39	11.2	SubName: Full=Predicted membrane protein, putative toxin reg...
b5q6x1	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5mjn8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5inf4	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5ine8	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5gla1	137	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5g8w8	295	33	11.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5cq10	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5bzx7	133	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b5bfj9	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b4wae5	130	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vu07	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4t529	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b4rl85	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4a1u8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b3q1a1	127	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3jig1	278	31	11.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
b3gxu6	160	24	11.2	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
b3a405	124	24	11.2	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
b2n3w9	258	29	11.2	SubName: Full=Cytolethal distending toxin A;
b2ilv6	303	34	11.2	SubName: Full=Exfoliative toxin, putative;
b1zgh2	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1y113	111	24	11.2	SubName: Full=RelE-like cytotoxic translational repressor of...
b1xra2	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

b1xhr6	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1xdx4	116	24	11.2	SubName: Full=Toxin of the ChpB-ChpS toxin-antitoxin system;...
b1xbw3	105	24	11.2	SubName: Full=CP4-57 prophage; antitoxin of the YpjF-YfjZ to...
b1rj16	129	24	11.2	SubName: Full=Toxin secretion/phage lysis holin subfamily;
b1q562	153	24	11.2	SubName: Full=RTX toxin activating protein;
b1m916	99	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
b1lhv0	105	24	11.2	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
b1k7g2	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1k5p4	123	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1bw48	138	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
b1a4j9	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0yn41	115	24	11.2	SubName: Full=Putative addiction module toxin;
b0t3d6	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0t1z6	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0pf28	141	24	11.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
b0pa71	159	24	11.2	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
b0k6t6	136	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
b0jxx5	149	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0g8u7	174	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b0cea1	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0bsg0	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9w316	126	24	11.2	SubName: Full=RelE-like cytotoxic translational repressor of...
a9vqt7	141	24	11.2	SubName: Full=Toxin secretion/phage lysis holin;
a9n3k8	132	24	11.2	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
a9ei92	99	24	11.2	SubName: Full=Toxin of the toxin/antitoxin chromosome stabil...
a9a0w2	144	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8zku0	138	24	11.2	SubName: Full=RTX toxin acyltransferase family protein;
a8ylw6	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8ybz5	129	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8tma6	117	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a8m5y7	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8cvm1	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7isk6	168	24	11.2	SubName: Full=RTX structural toxin activating protein;
a7ipr7	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ipr4	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ip49	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ihe2	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7c4j2	136	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7c3z4	157	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bzv9	153	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bw69	162	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7b6l6	161	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a6x850	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6h963	103	24	11.2	SubName: Full=ParE toxin;
a6gag4	320	36	11.2	SubName: Full=RTX toxins and related Ca2+-binding protein;
a6fg05	437	49	11.2	SubName: Full=Toxin secretion transporter, putative;
a6dz94	89	24	11.2	SubName: Full=Addiction module toxin, Txe/YoeB;
a5wrc5	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wqf6	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wqd8	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5vbr6	119	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a5uxe9	112	24	11.2	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a5u6m6	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u5p7	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u5m8	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5kp71	143	24	11.2	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a5g9z4	124	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5f395	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...

a5e9e5	145	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4z3e1	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4xyu4	93	24	11.2	SubName: Full=Addiction module toxin, RelE/StbE family;
a4xjm7	132	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4tfq8	126	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4knx4	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4knv6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kkd7	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4jmw2	121	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4f2a2	190	24	11.2	SubName: Full=Cytolethal distending toxin C;
a4bsm5	138	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4bqw3	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4bmi4	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3zfk4	189	24	11.2	SubName: Full=Cytolethal distending toxin A/C family;
a3xwf5	168	24	11.2	SubName: Full=Toxin resistance protein;
a3n329	128	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3jgk0	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3j9z0	109	24	11.2	SubName: Full=Toxin-antitoxin stability system antidote prot...
a3gyr8	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
a3gyr4	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gme0	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
a3eic9	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
a3eic6	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a2vlk5	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vkq7	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vkn9	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2qth9	89	24	11.2	SubName: Full=Similarity to of pertussis toxin chain S3 - Bo...
a1wni8	141	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1wji2	140	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1wa87	142	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1vqc7	152	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1vlk0	143	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1uqj9	133	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kth5	115	24	11.2	SubName: Full=Putative plamid toxin PemK protein;
a1kml7	147	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1klp6	125	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1klm6	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1jnd5	134	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1hug1	150	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1f0y6	489	55	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
a1f0y2	136	24	11.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1bjp7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0yz25	249	28	11.2	SubName: Full=Probable RTX (Repeat in structural toxin) prot...
a0yw32	131	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0axg7	139	24	11.2	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r4dwv2	287	32	11.1	SubName: Full=Zeta-toxin;
r3vdz9	287	32	11.1	SubName: Full=Zeta-toxin;
r2l2p9	287	32	11.1	SubName: Full=Zeta-toxin;
r2kh21	287	32	11.1	SubName: Full=Zeta-toxin;
r2e9l3	287	32	11.1	SubName: Full=Zeta-toxin;
r2cx46	287	32	11.1	SubName: Full=Zeta-toxin;
r1zxk0	226	25	11.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1c7q8	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0zt28	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0v6j2	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0v3b5	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0uux6	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0urz0	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...

r0urj1	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0ucc7	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0tmj1	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0sfl4	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9f0l4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
q97qz1	253	28	11.1	RecName: Full=Toxin PezT; AltName: Full=UDP-N-acetylglucosam...
q95ne0	314	35	11.1	RecName: Full=Ecto-ADP-ribosyltransferase 4; EC=2.4.2.31; Al...
q93070	314	35	11.1	RecName: Full=Ecto-ADP-ribosyltransferase 4; EC=2.4.2.31; Al...
q8vv67	315	35	11.1	SubName: Full=Shiga toxin 1 A subunit; SubName: Full=Shiga t...
q8rsx9	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
q7wdu7	226	25	11.1	SubName: Full=Pertussis toxin subunit 2;
q7a4k7	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
q7a2n8	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
q5xci2	316	35	11.1	SubName: Full=Putative exfoliative toxin;
q589w8	296	33	11.1	SubName: Full=HMG-CoA hydrolase for ACT-toxin synthesis;
q54944	287	32	11.1	RecName: Full=Toxin zeta; AltName: Full=UDP-N-acetylglucosam...
q2yvp2	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
q1w695	305	34	11.1	RecName: Full=Sphingomyelin phosphodiesterase D LiSicTox-alp...
q03w61	380	42	11.1	SubName: Full=Predicted membrane protein, putative toxin reg...
p04978	226	25	11.1	RecName: Full=Pertussis toxin subunit 2; Short=PTX S2; AltNa...
o54462	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n6ryv4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n6pbn3	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n6jku4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n6ecs4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n5rl05	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
n2m8e2	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2lbj5	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2dh08	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n1xnh0	253	28	11.1	SubName: Full=Zeta toxin;
n0b285	440	49	11.1	SubName: Full=Cholera toxin secretion EpsM protein;
m9bwn2	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8y5r7	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8xeb4	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8xak6	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8x036	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8vi31	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8tg42	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8t7n2	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8sjf0	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8rth9	288	32	11.1	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8nyi9	359	40	11.1	SubName: Full=Zonular occludens toxin family protein;
m5n5x7	253	28	11.1	SubName: Full=Zeta toxin;
m5mtm0	253	28	11.1	SubName: Full=Zeta toxin;
m5mlj7	253	28	11.1	SubName: Full=Zeta toxin;
m5miy9	253	28	11.1	SubName: Full=Zeta toxin;
m5ma52	253	28	11.1	SubName: Full=Zeta toxin;
m5m3b5	253	28	11.1	SubName: Full=Zeta toxin;
m5m232	253	28	11.1	SubName: Full=Zeta toxin;
m5lv94	253	28	11.1	SubName: Full=Zeta toxin;
m5lm89	253	28	11.1	SubName: Full=Zeta toxin;
m5llg3	253	28	11.1	SubName: Full=Zeta toxin;
m5led2	253	28	11.1	SubName: Full=Zeta toxin;
m5kr41	253	28	11.1	SubName: Full=Zeta toxin;
m5klg4	253	28	11.1	SubName: Full=Zeta toxin;
m5kiu8	253	28	11.1	SubName: Full=Zeta toxin;
m5kg26	253	28	11.1	SubName: Full=Zeta toxin;
m4hvv6	253	28	11.1	SubName: Full=Pneumococcal zeta toxin PezT;

l5sci2	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5rg67	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5rav5	414	46	11.1	SubName: Full=Pre-toxin domain with VENN motif family protei...
l2smq7	287	32	11.1	SubName: Full=Zeta-toxin;
l2sm78	287	32	11.1	SubName: Full=Zeta-toxin;
l2s8g8	287	32	11.1	SubName: Full=Zeta-toxin;
l1mfv8	225	25	11.1	SubName: Full=Diphtheria toxin repressor;
l0snq3	253	28	11.1	SubName: Full=Putative zeta-toxin;
l0sh05	253	28	11.1	SubName: Full=Putative zeta-toxin;
l0sfe3	253	28	11.1	SubName: Full=Putative zeta-toxin;
l0sa23	253	28	11.1	SubName: Full=Putative zeta-toxin;
l0ruv7	280	31	11.1	SubName: Full=Exfoliative toxin D2;
k8zcl7	325	36	11.1	SubName: Full=Exfoliative toxin A;
k4u8u4	226	25	11.1	SubName: Full=Pertussis toxin subunit 2;
k0mk56	226	25	11.1	SubName: Full=Pertussis toxin subunit 2;
j7qh70	226	25	11.1	SubName: Full=Pertussis toxin subunit 2;
j7bhx9	287	32	11.1	SubName: Full=Zeta toxin;
j6yes3	287	32	11.1	SubName: Full=Zeta toxin;
j6xic5	287	32	11.1	SubName: Full=Zeta toxin;
j6vgq2	287	32	11.1	SubName: Full=Zeta toxin;
j6ug98	287	32	11.1	SubName: Full=Zeta toxin;
j6pba4	287	32	11.1	SubName: Full=Zeta toxin;
j6e1h0	287	32	11.1	SubName: Full=Zeta toxin;
j5ygg3	287	32	11.1	SubName: Full=Zeta toxin;
j5wgi4	287	32	11.1	SubName: Full=Zeta toxin;
j1v289	253	28	11.1	SubName: Full=Toxin PezT;
j1u113	253	28	11.1	SubName: Full=Toxin PezT;
j1t8d7	253	28	11.1	SubName: Full=Toxin PezT;
j1rum2	253	28	11.1	SubName: Full=Toxin PezT;
j1qvg2	253	28	11.1	SubName: Full=Zeta toxin family protein;
j1qtt6	253	28	11.1	SubName: Full=Zeta toxin family protein;
j1pfi6	253	28	11.1	SubName: Full=Zeta toxin family protein;
j1hdd4	253	28	11.1	SubName: Full=Toxin PezT;
j0yhu4	253	28	11.1	SubName: Full=Toxin PezT;
j0y625	253	28	11.1	SubName: Full=Toxin PezT;
j0xh61	253	28	11.1	SubName: Full=Zeta toxin family protein;
j0u9f4	253	28	11.1	SubName: Full=Zeta toxin family protein;
i6aja1	288	32	11.1	SubName: Full=Zonula occludens toxin;
i2wbf6	360	40	11.1	SubName: Full=Hemolysin toxin protein A domain protein;
h7qnp0	253	28	11.1	SubName: Full=Zeta toxin family protein;
h7pz88	253	28	11.1	SubName: Full=Zeta toxin family protein;
h7psb1	253	28	11.1	SubName: Full=Zeta toxin family protein;
h4rsk0	389	43	11.1	SubName: Full=Toxin B domain protein;
h4mnz8	389	43	11.1	SubName: Full=Toxin B domain protein;
h4h2k6	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4gti1	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4e1w0	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4dkt2	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4csq3	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4c3t0	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h4bjg4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h3trj1	234	26	11.1	SubName: Full=Toxin, OB domain protein;
h3s8l9	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
h1t3d1	234	26	11.1	SubName: Full=Toxin, OB domain protein;
h1ste4	234	26	11.1	SubName: Full=Toxin, OB domain protein;
h0esf2	451	50	11.1	SubName: Full=Putative HC-toxin efflux carrier TOXA;
h0d1m3	234	26	11.1	SubName: Full=Toxin, OB domain protein;
h0apn8	234	26	11.1	SubName: Full=Toxin, OB-fold domain protein;

g7viw2	380	42	11.1	SubName: Full=Membrane protein, putative toxin regulator;
f9s7k3	315	35	11.1	SubName: Full=Zeta toxin family protein;
f9kh95	234	26	11.1	SubName: Full=Toxin, OB-fold domain protein;
f9kf44	234	26	11.1	SubName: Full=Toxin, OB-fold domain protein;
f8y1b2	262	29	11.1	SubName: Full=Zeta-toxin;
f4lg56	226	25	11.1	SubName: Full=Toxin subunit 2;
f3liq7	398	44	11.1	SubName: Full=RTX toxin;
f0md38	332	37	11.1	SubName: Full=RTX prokaryotic toxin family protein;
e7az29	315	35	11.1	SubName: Full=Putative toxin subunit;
e6im65	377	42	11.1	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e6if23	234	26	11.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6eu72	234	26	11.1	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e5x3x3	288	32	11.1	SubName: Full=Zeta toxin;
e5thn5	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
e4w0m8	288	32	11.1	SubName: Full=Zeta toxin family protein;
e2cm83	368	41	11.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1xjs7	253	28	11.1	SubName: Full=Putative zeta-toxin;
e1xgc1	253	28	11.1	SubName: Full=Putative zeta-toxin;
e0h6t4	287	32	11.1	SubName: Full=Zeta toxin;
d9rjj5	351	39	11.1	SubName: Full=Toxin regulatorly-like protein;
d9rdz4	351	39	11.1	SubName: Full=Toxin regulatorly-like protein;
d7j5y0	288	32	11.1	SubName: Full=Zeta toxin superfamily;
d7igc6	371	41	11.1	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7av36	350	39	11.1	SubName: Full=Zeta toxin family protein;
d6lzm4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
d6k0p2	226	25	11.1	SubName: Full=Toxin-antitoxin system, toxin component;
d4rtz8	287	32	11.1	SubName: Full=Zeta toxin;
d2utw0	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1 (TSST-1);
d2uld3	315	35	11.1	SubName: Full=Exfoliative toxin A/B;
d2gtd1	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1 (TSST-1);
d2ghu7	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
d2gfd4	315	35	11.1	SubName: Full=Exfoliative toxin;
d2feq4	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
d1tuq4	389	43	11.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c6gys2	287	32	11.1	SubName: Full=Toxin of epsilon-zeta postsegregational killin...
c0mpk7	226	25	11.1	SubName: Full=Pertussis toxin subunit 2; Flags: Precursor;
b3c673	288	32	11.1	SubName: Full=Zeta toxin;
b2vi07	488	54	11.1	SubName: Full=General secretion pathway protein E (Type II t...
a9bv73	341	38	11.1	SubName: Full=Zonular occludens toxin;
a8ax66	298	33	11.1	SubName: Full=Exfoliative toxin A;
a7x4h0	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
a5jj19	234	26	11.1	SubName: Full=Toxic shock syndrome toxin-1;
a5ivz5	351	39	11.1	SubName: Full=Membrane protein putative toxin regulator-like...
r1b1m3	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r1ab44	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0zas6	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xyp7	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xu54	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xrs2	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0vlk0	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0ufz0	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0uak4	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0q267	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0pv93	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9rec3	319	35	11.0	SubName: Full=Shiga toxin 2 variant A-subunit; SubName: Full...
q9f5q8	335	37	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q7vsx4	374	41	11.0	RecName: Full=Type IV secretion system protein PtlG; AltName...
q6g140	355	39	11.0	SubName: Full=Hypothetical toxin secretion protein;

q5bd08	418	46	11.0	SubName: Full=Toxin biosynthesis protein (Tri7), putative (A...
q546i1	227	25	11.0	SubName: Full=Pertussis toxin subunit 3;
q47645	319	35	11.0	SubName: Full=Shiga-like toxin II; Flags: Precursor;
q3iyt6	437	48	11.0	SubName: Full=Hemolysin-type calcium-binding region RTX toxi...
q2hwu1	319	35	11.0	SubName: Full=Shiga toxin 2 variant f A-subunit;
q2g1x0	319	35	11.0	RecName: Full=Alpha-hemolysin; Short=Alpha-HL; AltName: Full...
q18801	399	44	11.0	RecName: Full=GDP-mannose 4,6 dehydratase 1; EC=4.2.1.47; Al...
p04979	227	25	11.0	RecName: Full=Pertussis toxin subunit 3; Short=PTX S3; AltNa...
o49166	356	39	11.0	SubName: Full=NADPH HC toxin reductase;
n4sf46	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4sbj1	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4r302	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4m9l2	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4cep1	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4c8x1	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4c4i2	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4c3a7	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4but0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4aql0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4abm4	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3zne3	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3zmw2	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3zbn1	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3ype5	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3kgi8	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3f9i6	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3ez79	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3dh20	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3d5z3	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3c0z4	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3bxr6	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3bqj6	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3bgd0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3b3w9	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3b0a5	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2s676	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2pte2	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2grx9	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2gep8	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2e9h8	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n1r058	309	34	11.0	SubName: Full=Multidrug and toxin extrusion protein 1;
m9s9s4	326	36	11.0	SubName: Full=Diptheria toxin resistance protein required fo...
m9i5p3	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9hsc0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9gyc1	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9gvn4	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9dx82	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9a5j0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8zj58	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8zf63	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8uin5	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8r8t3	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8li93	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8l0x0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8jr09	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m7u1x3	299	33	11.0	SubName: Full=Putative killer toxin alpha beta protein;
m7t4a9	437	48	11.0	SubName: Full=Putative toxin biosynthesis protein;
m7m016	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;

m7lzf2	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7lgr7	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7l0t5	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7k5q2	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7k218	326	36	11.0	SubName: Full=Toxin-coregulated pilus biosynthesis protein E...
m7jzh7	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7jln8	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7j3q4	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7j3g5	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7in84	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7i8i4	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7i668	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7i244	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7h9e2	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7gxk4	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m7g6k1	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
m0pv37	489	54	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l9if03	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
l9c7w6	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
l8z6p0	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
l8z2y6	355	39	11.0	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
l8qgh7	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
l7f0y2	353	39	11.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l5sy22	362	40	11.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
l2gfh6	365	40	11.0	SubName: Full=Toxin biosynthesis;
l2fwv3	245	27	11.0	SubName: Full=Toxin biosynthesis;
l1n2i6	363	40	11.0	SubName: Full=Zeta toxin;
l1kxt7	218	24	11.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k4tih4	227	25	11.0	SubName: Full=Pertussis toxin subunit 3;
k4ihx1	245	27	11.0	SubName: Full=Addiction module toxin protein, zeta toxin-lik...
k2ts27	301	33	11.0	SubName: Full=Insecticidal toxin protein, putative;
k0e210	291	32	11.0	SubName: Full=Cytolethal distending toxin B-like protein;
j7qv05	227	25	11.0	SubName: Full=Pertussis toxin subunit 3;
j5jqj8	410	45	11.0	SubName: Full=Host-specific AK-toxin Akt2;
j0lwc6	337	37	11.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
j0fmg4	246	27	11.0	SubName: Full=Putative toxin-antitoxin system, toxin compone...
h8jwh4	282	31	11.0	SubName: Full=Cholera toxin transcriptional activator;
h8f552	354	39	11.0	SubName: Full=RTX toxin transporter, ATP-binding protein;
h3ywj6	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
h3y7g5	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
h3x5i0	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
h1ta04	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
g7uze6	356	39	11.0	SubName: Full=Toxin anion resistance protein TelA;
g6aur6	335	37	11.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
g3jnv8	356	39	11.0	SubName: Full=Killer toxin sensitivity protein;
f9k549	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
f5wpt5	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
f5lzs4	437	48	11.0	SubName: Full=Hemolysin-type calcium-binding region; RTX tox...
f4lg59	227	25	11.0	SubName: Full=Toxin subunit 3;
f3tcj1	292	32	11.0	SubName: Full=Toxin, beta-grasp domain protein;
f3t7r3	308	34	11.0	SubName: Full=Toxin, beta-grasp domain protein;
f0xgw6	372	41	11.0	SubName: Full=Zeta toxin;
f0p0u9	263	29	11.0	SubName: Full=Toxin beta-grasp domain-containing protein;
e6bm05	308	34	11.0	SubName: Full=Zeta toxin;
e5r7f5	292	32	11.0	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e4l1a1	227	25	11.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1j319	308	34	11.0	SubName: Full=Zeta toxin;
d9y0j7	290	32	11.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...

d9wtr8	283	31	11.0	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7xt93	308	34	11.0	SubName: Full=Zeta toxin;
d6lil3	227	25	11.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4lij1	363	40	11.0	SubName: Full=Predicted membrane protein, putative toxin reg...
d4j6h1	355	39	11.0	SubName: Full=Predicted membrane protein, putative toxin reg...
d2qan2	382	42	11.0	SubName: Full=Anititoxin/toxin system zeta toxin;
d2n6d5	319	35	11.0	SubName: Full=Alpha-hemolysin (Alpha-toxin) (Alpha-HL);
c8ru35	255	28	11.0	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
c8mn39	292	32	11.0	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lgu2	292	32	11.0	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l7s5	292	32	11.0	SubName: Full=Toxin beta-grasp domain-containing protein;
c7h633	347	38	11.0	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
c7big4	327	36	11.0	SubName: Full=Insecticidal toxin complex protein tccc3;
c6l1n0	319	35	11.0	SubName: Full=Shiga toxin 2 variant f A-subunit;
c3hbb5	353	39	11.0	SubName: Full=35.8-kilodalton mosquitocidal toxin;
c2vlx5	382	42	11.0	SubName: Full=41.9 kDa insecticidal toxin;
c2v4w1	382	42	11.0	SubName: Full=41.9 kDa insecticidal toxin;
c2u6f0	382	42	11.0	SubName: Full=41.9 kDa insecticidal toxin;
b6q206	353	39	11.0	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
a6tyq1	292	32	11.0	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
r3h7h2	322	35	10.9	SubName: Full=Exfoliative toxin A;
q9a061	302	33	10.9	SubName: Full=Putative exfoliative toxin;
q8n5y8	322	35	10.9	RecName: Full=Mono [ADP-ribose] polymerase PARP16; EC=2.4.2....
q8l356	258	28	10.9	SubName: Full=Cholera toxin A subunit;
q8fpg6	230	25	10.9	RecName: Full=Diphtheria toxin repressor; AltName: Full=Iron...
q8eix3	433	47	10.9	SubName: Full=Toxin-antitoxin system toxin HipA family;
q7vsx3	339	37	10.9	RecName: Full=Type IV secretion system protein PtlH; AltName...
q4ww19	247	27	10.9	SubName: Full=Toxin biosynthesis ketoreductase, putative; EC...
q4w8a6	267	29	10.9	SubName: Full=Cytolethal distending toxin B; SubName: Full=C...
q4hru1	239	26	10.9	SubName: Full=Cytolethal distending toxin A;
q4hru0	265	29	10.9	SubName: Full=Cytolethal distending toxin B;
q4hg80	267	29	10.9	SubName: Full=Cytolethal distending toxin A;
q41867	357	39	10.9	SubName: Full=NADPH HC-toxin reductase;
p45776	221	24	10.9	RecName: Full=Type II secretion system protein J; Short=T2SS...
n9vtx8	304	33	10.9	SubName: Full=Zeta toxin family protein;
n6vgj3	238	26	10.9	SubName: Full=CtxA-like, cholera toxin A subunit;
n6v8p0	238	26	10.9	SubName: Full=CtxA-like, cholera toxin A subunit;
n0c456	304	33	10.9	SubName: Full=Exfoliative toxin A;
m3f4c2	329	36	10.9	SubName: Full=Toxin component;
l8xrc7	294	32	10.9	SubName: Full=Toxin A;
l8q1a5	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
k3jvg4	312	34	10.9	SubName: Full=Cytolethal distending toxin A/C family protein...
j8wmk0	395	43	10.9	SubName: Full=Zonula occludens toxin family protein;
j7t349	258	28	10.9	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j3fkb1	487	53	10.9	SubName: Full=Ca2+-binding protein, RTX toxin; Flags: Precur...
j1wzg8	394	43	10.9	SubName: Full=Zona occludens toxin;
j1bfj1	248	27	10.9	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
i0tzp3	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
h7wp33	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7wj54	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7wfg0	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7w750	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7vyr8	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7vvy0	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7vp51	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7vp50	258	28	10.9	SubName: Full=Cytolethal distending toxin subunit A;
h7uza8	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7ums5	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit CdtB;

h7uhw7	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7ud26	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7u7d5	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7twh5	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7trs2	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7tme2	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7tiu7	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7tcc5	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7t912	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7t4t7	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7st09	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7slb6	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7sej0	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7sbx7	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7s5c4	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7rv45	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7rgf1	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit CdtB;
h7rat0	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7qyq6	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7qws3	267	29	10.9	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7pmf6	256	28	10.9	SubName: Full=Zeta toxin family protein;
h4n3v8	387	42	10.9	SubName: Full=Toxin B domain protein;
h3yw83	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
h3y8j1	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
h3x4q9	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
h1t7i7	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
h1q9j8	385	42	10.9	SubName: Full=Toxin component;
h0cpz6	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
g8pyp3	433	47	10.9	SubName: Full=RTX toxins-related Ca2+-binding protein;
g6avu4	313	34	10.9	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
g2ycb0	256	28	10.9	SubName: Full=Similar to cercosporin toxin biosynthesis prot...
g0st31	258	28	10.9	SubName: Full=Toxin,cholera;
g0slx4	221	24	10.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g0ep51	294	32	10.9	SubName: Full=Toxin A;
f9kwt8	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f9kkh1	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f9k3x7	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f7qwk8	349	38	10.9	SubName: Full=Membrane protein, toxin regulator;
f5wm10	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f5wgd3	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f5w8g1	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
f4dvq4	386	42	10.9	SubName: Full=Zonular occludens toxin;
f3the8	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein;
e9fm34	303	33	10.9	SubName: Full=Putative exfoliative toxin;
e8jt30	256	28	10.9	SubName: Full=Zeta toxin; SubName: Full=Zeta-toxin;
e7n9j6	414	45	10.9	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e6l7p0	265	29	10.9	SubName: Full=Cytolethal distending toxin B;
e5r7q8	239	26	10.9	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e2sut2	320	35	10.9	SubName: Full=Toxin-antitoxin system;
e2csd3	229	25	10.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1m0f2	256	28	10.9	SubName: Full=Zeta toxin;
e0qm45	341	37	10.9	SubName: Full=Toxin regulator;
e0qey5	267	29	10.9	SubName: Full=Cytolethal distending toxin B;
e0n6u2	395	43	10.9	SubName: Full=Zonula occludens toxin family protein;
d7hjn9	258	28	10.9	SubName: Full=Cholera toxin A protein;
d6kqz1	275	30	10.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6jzt7	294	32	10.9	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d4cxb9	285	31	10.9	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...

d3v105	404	44	10.9	SubName: Full=Toxin XaxA;
d2yk13	221	24	10.9	SubName: Full=Toxin coregulated pilus biosynthesis protein P...
d1qw49	238	26	10.9	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
d0w4t6	239	26	10.9	SubName: Full=Putative zeta-toxin;
c9dtx2	384	42	10.9	SubName: Full=Zonula occludens toxin type 1;
c8ml96	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m7q8	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c8m0m1	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lv21	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c8lh29	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l2z8	239	26	10.9	SubName: Full=Toxin beta-grasp domain-containing protein;
c7gi03	238	26	10.9	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c6yc25	258	28	10.9	SubName: Full=Cholera toxin A protein;
c6bku5	276	30	10.9	SubName: Full=Zonular occludens toxin;
b7tgz6	221	24	10.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgy1	221	24	10.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgw6	221	24	10.9	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b0y2h3	247	27	10.9	SubName: Full=Toxin biosynthesis ketoreductase, putative;
b0map4	239	26	10.9	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b0ggq1	349	38	10.9	SubName: Full=Toxin subunit;
a7dv67	387	42	10.9	SubName: Full=RTX toxins and related Ca2+-binding protein; S...
a6xzj3	294	32	10.9	SubName: Full=Cholera toxin transcriptional activator;
a6u2t2	239	26	10.9	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a6gp14	384	42	10.9	SubName: Full=Putative RTX toxin;
a6a482	294	32	10.9	SubName: Full=Cholera toxin transcriptional activator;
a5itz4	239	26	10.9	SubName: Full=Toxin, beta-grasp domain protein; Flags: Precu...
a4xu57	396	43	10.9	SubName: Full=Zonular occludens toxin;
a4f2b0	267	29	10.9	SubName: Full=Cytolethal distending toxin B;
a4f2a1	267	29	10.9	SubName: Full=Cytolethal distending toxin B;
a4f298	267	29	10.9	SubName: Full=Cytolethal distending toxin B;
r3y3g5	287	31	10.8	SubName: Full=Zeta-toxin;
r3nl11	249	27	10.8	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3bds0	249	27	10.8	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
q9rpm6	240	26	10.8	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q94m00	315	34	10.8	SubName: Full=Shiga toxin 1A variant OX3;
q8vv64	315	34	10.8	SubName: Full=Shiga toxin 1 A-subunit;
q8vsr1	240	26	10.8	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q8l170	315	34	10.8	SubName: Full=Shiga toxin 1 A subunit;
q8dz95	305	33	10.8	SubName: Full=Exfoliative toxin A, putative;
q7bd17	240	26	10.8	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q77yb9	315	34	10.8	SubName: Full=Shiga-like toxin A subunit;
q6upc2	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
q6ldt4	315	34	10.8	SubName: Full=Shiga toxin-like subunit A; Flags: Precursor;
q5iqz7	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
q5iqz2	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
q5dkx4	277	30	10.8	SubName: Full=Exfoliative toxin ExhB;
q47640	315	34	10.8	SubName: Full=SLT-I A subunit coding region; SubName: Full=S...
q3dqk9	305	33	10.8	SubName: Full=Exfoliative toxin A;
q3d3d5	305	33	10.8	SubName: Full=Exfoliative toxin A;
q306l1	362	39	10.8	SubName: Full=40kDa insecticidal toxin;
p94594	250	27	10.8	RecName: Full=Type-1Ab cytolytic delta-endotoxin; AltName: F...
p62561	251	27	10.8	RecName: Full=Exotoxin type A; AltName: Full=Erythrogenic to...
p62560	251	27	10.8	RecName: Full=Exotoxin type A; AltName: Full=Erythrogenic to...
p38442	399	43	10.8	RecName: Full=Zona occludens toxin; AltName: Full=Zonular oc...
p09807	249	27	10.8	RecName: Full=Killer toxin subunit gamma; AltName: Full=RF3 ...
p08026	315	34	10.8	RecName: Full=Shiga-like toxin 1 subunit A; Short=SLT-1 A su...
p06575	370	40	10.8	RecName: Full=41.9 kDa insecticidal toxin; AltName: Full=Str...
o52623	240	26	10.8	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...

o32586	269	29	10.8	SubName: Full=Cytolethal distending toxin B; SubName: Full=C...
n6vk74	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit CdtB;
m7km41	399	43	10.8	SubName: Full=Zona occludens toxin;
m7i156	399	43	10.8	SubName: Full=Zona occludens toxin;
m7fjl9	399	43	10.8	SubName: Full=Zona occludens toxin;
m5b8f6	434	47	10.8	SubName: Full=Toxin-antitoxin system, toxin component;
m1rz13	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B;
m0pv26	399	43	10.8	SubName: Full=Zona occludens toxin;
l8tig9	399	43	10.8	SubName: Full=Zona occludens toxin;
l8t3g5	399	43	10.8	SubName: Full=Zona occludens toxin;
l8ssd3	399	43	10.8	SubName: Full=Zona occludens toxin;
l8s4y7	399	43	10.8	SubName: Full=Zona occludens toxin;
l8rzc6	399	43	10.8	SubName: Full=Zona occludens toxin;
l8rpw4	399	43	10.8	SubName: Full=Zona occludens toxin;
l8r7h7	399	43	10.8	SubName: Full=Zona occludens toxin;
l8r227	399	43	10.8	SubName: Full=Zona occludens toxin;
l8qqq2	399	43	10.8	SubName: Full=Zona occludens toxin;
l7f9e4	314	34	10.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7ese2	286	31	10.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7d6p7	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
l5p4c2	305	33	10.8	SubName: Full=Pre-toxin domain with VENN motif family protei...
l2pmu0	287	31	10.8	SubName: Full=Zeta-toxin;
l1ltd7	399	43	10.8	SubName: Full=RTX toxin;
l1l6q3	286	31	10.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kwq3	277	30	10.8	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1hzj0	241	26	10.8	SubName: Full=Zeta toxin;
k9a101	344	37	10.8	SubName: Full=Toxin-antitoxin antitoxin xre family;
k5v0r8	399	43	10.8	SubName: Full=Zona occludens toxin;
k5tc08	399	43	10.8	SubName: Full=Zona occludens toxin;
k5rr19	399	43	10.8	SubName: Full=Zona occludens toxin;
k5rfj5	399	43	10.8	SubName: Full=Zona occludens toxin;
k5nn81	399	43	10.8	SubName: Full=Zonular occludens toxin family protein;
k5mms3	399	43	10.8	SubName: Full=Zonular occludens toxin family protein;
k5l4a5	399	43	10.8	SubName: Full=Zonular occludens toxin family protein;
k5k6t5	399	43	10.8	SubName: Full=Zonular occludens toxin family protein;
k5ixx9	399	43	10.8	SubName: Full=Zonular occludens toxin family protein;
k4u1b8	241	26	10.8	SubName: Full=Putative toxin;
k4qhn4	269	29	10.8	SubName: Full=Pertussis toxin subunit 1; EC=2.4.2.-;
k4qe40	241	26	10.8	SubName: Full=Putative toxin;
k3hq53	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B; EC=3.1....
k2xbm5	399	43	10.8	SubName: Full=Zona occludens toxin;
k2wjs6	399	43	10.8	SubName: Full=Zona occludens toxin;
k2vve1	399	43	10.8	SubName: Full=Zona occludens toxin;
k2vul8	399	43	10.8	SubName: Full=Zona occludens toxin;
k2v0z9	399	43	10.8	SubName: Full=Zona occludens toxin;
k2tr04	399	43	10.8	SubName: Full=Zona occludens toxin;
k0m9i7	241	26	10.8	SubName: Full=Putative toxin;
j4vvs7	344	37	10.8	SubName: Full=Membrane protein, putative toxin regulator;
j1zv88	399	43	10.8	SubName: Full=Zona occludens toxin;
j1zle2	399	43	10.8	SubName: Full=Zona occludens toxin;
j1z1q3	399	43	10.8	SubName: Full=Zona occludens toxin;
j1xk23	399	43	10.8	SubName: Full=Zona occludens toxin;
j1w2c0	399	43	10.8	SubName: Full=Zona occludens toxin;
j1vrt1	399	43	10.8	SubName: Full=Zona occludens toxin;
j1ij08	278	30	10.8	SubName: Full=Omega toxin-like domain protein;
j1gb65	399	43	10.8	SubName: Full=Zona occludens toxin;
j1f2i1	399	43	10.8	SubName: Full=Zona occludens toxin;
j1ezz9	399	43	10.8	SubName: Full=Zona occludens toxin;

j1e7j9	399	43	10.8	SubName: Full=Zona occludens toxin;
j1d007	399	43	10.8	SubName: Full=Zona occludens toxin;
j1c0f3	399	43	10.8	SubName: Full=Zona occludens toxin;
i5pdi9	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B; EC=3.1....
i3cx32	259	28	10.8	SubName: Full=Zeta toxin family protein;
i2wdm6	315	34	10.8	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2t6v2	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B; EC=3.1....
i2rqq0	315	34	10.8	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2e2g0	370	40	10.8	SubName: Full=Binary toxin A;
i1e012	416	45	10.8	SubName: Full=Toxin secretion, membrane fusion protein;
i0xk83	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
i0vkx8	269	29	10.8	SubName: Full=Type III cytolethal distending toxin protein C...
i0b573	315	34	10.8	SubName: Full=Shiga toxin 1 subunit A;
h8jy65	399	43	10.8	SubName: Full=Zona occludens toxin;
h5ewr9	324	35	10.8	SubName: Full=Toxin B domain protein;
h4p1p3	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B; EC=3.1....
h4hc83	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4ghf2	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h4fx90	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h4ep57	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4dp64	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4d7x1	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4bm62	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4ayw9	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4ari5	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4ahw3	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h4aa77	231	25	10.8	SubName: Full=Enterotoxin-like toxin;
h3zyv1	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h3yr97	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h3y2k7	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h3xwa5	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h3xcy4	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h3u297	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h1tl74	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h0d351	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h0azm0	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
h0afs9	250	27	10.8	SubName: Full=Toxin, beta-grasp domain protein;
g7trb1	399	43	10.8	SubName: Full=Zona occludens toxin;
g7c6f0	399	43	10.8	SubName: Full=Zona occludens toxin;
g7bwa1	399	43	10.8	SubName: Full=Zona occludens toxin;
g7bi98	399	43	10.8	SubName: Full=Zona occludens toxin;
g7b7f9	399	43	10.8	SubName: Full=Zona occludens toxin;
g7awx2	399	43	10.8	SubName: Full=Zona occludens toxin;
g7ane1	399	43	10.8	SubName: Full=Zona occludens toxin;
g7aa78	399	43	10.8	SubName: Full=Zona occludens toxin;
g7a313	399	43	10.8	SubName: Full=Zona occludens toxin;
g6zsi4	399	43	10.8	SubName: Full=Zona occludens toxin;
g6zey7	399	43	10.8	SubName: Full=Zona occludens toxin;
g6z6f5	399	43	10.8	SubName: Full=Zona occludens toxin;
g5nag6	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B;
g5k5h8	269	29	10.8	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
g4cn33	296	32	10.8	SubName: Full=Zeta-toxin;
g2agj6	315	34	10.8	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
g1y8g7	260	28	10.8	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
f9zkg5	324	35	10.8	SubName: Full=Zonular occludens toxin;
f9c6w1	399	43	10.8	SubName: Full=Zona occludens toxin;
f9bba4	399	43	10.8	SubName: Full=Zona occludens toxin;
f9a2q5	399	43	10.8	SubName: Full=Zona occludens toxin;

f8zvp3	399	43	10.8	SubName: Full=Zona occludens toxin;
f8zjv5	399	43	10.8	SubName: Full=Zona occludens toxin;
f8z9f3	399	43	10.8	SubName: Full=Zona occludens toxin;
f8yys9	399	43	10.8	SubName: Full=Zona occludens toxin;
f5jy90	241	26	10.8	SubName: Full=Zeta toxin;
f4una7	269	29	10.8	SubName: Full=Cytolethal distending toxin subunit B (CDT B);...
f3f571	296	32	10.8	SubName: Full=Insecticidal toxin complex protein;
f0n116	332	36	10.8	SubName: Full=RTX prokaryotic toxin family protein;
e9ea21	361	39	10.8	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
e9e531	332	36	10.8	SubName: Full=Zeta toxin family protein;
e7mug3	250	27	10.8	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e7mf72	250	27	10.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e7mdv8	250	27	10.8	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e6n078	362	39	10.8	SubName: Full=Zonular occludens toxin (Zot) family protein;
e6mzi2	332	36	10.8	SubName: Full=RTX family exoprotein; SubName: Full=RTX proka...
e5r7f7	231	25	10.8	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e3chm5	223	24	10.8	SubName: Full=Zeta toxin;
e2csk7	305	33	10.8	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e0xv97	462	50	10.8	SubName: Full=Rtx toxins and related ca2+-binding proteins;
e0sl26	389	42	10.8	SubName: Full=RTX toxins-like Ca2+-binding protein;
d9xx30	286	31	10.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6kbp2	286	31	10.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d3v902	372	40	10.8	SubName: Full=Txp40, 40kDa insecticidal toxin (Previously na...
d3anr6	279	30	10.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d2utt9	250	27	10.8	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d0hjx7	399	43	10.8	SubName: Full=Zona occludens toxin;
c9qi56	232	25	10.8	SubName: Full=Cholera toxin transcriptional activator;
c9mx57	222	24	10.8	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c9kur5	316	34	10.8	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
c9e7d1	399	43	10.8	SubName: Full=Zonula occludens toxin; SubName: Full=Zot;
c8t6s0	268	29	10.8	SubName: Full=Xre family toxin-antitoxin system;
c8lgu4	231	25	10.8	SubName: Full=Toxin beta-grasp domain-containing protein;
c8l7s7	231	25	10.8	SubName: Full=Toxin beta-grasp domain-containing protein;
c7fpv4	315	34	10.8	SubName: Full=Shiga toxin 1 A subunit;
c6yc26	399	43	10.8	SubName: Full=Zona occludens toxin;
c6rzf9	399	43	10.8	SubName: Full=Zona occludens toxin;
c5zzp9	269	29	10.8	SubName: Full=Type III cytolethal distending toxin protein C...
c4tv44	231	25	10.8	SubName: Full=Toxin ABC transporter, ATP-binding/permease pr...
c4tiq7	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
c3nx65	399	43	10.8	SubName: Full=Zona occludens toxin;
c2jsr0	287	31	10.8	SubName: Full=Epsilon-zeta postsegregational killing system ...
c2iib8	399	43	10.8	SubName: Full=Zona occludens toxin;
c2eja5	352	38	10.8	SubName: Full=Membrane protein, toxin regulator;
b6scz9	360	39	10.8	SubName: Full=Putative Shiga-like toxin alpha subunit;
b5gvz5	398	43	10.8	SubName: Full=Putative Zeta toxin;
b5gct6	278	30	10.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5gbb6	277	30	10.8	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
b5g8z8	379	41	10.8	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
b3gk88	315	34	10.8	SubName: Full=Shiga toxin 1 subunit A;
b2n4h4	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
b1hq58	370	40	10.8	SubName: Full=41.9 kDa insecticidal toxin;
b1er32	269	29	10.8	SubName: Full=Cytolethal distending toxin B;
a6tyq3	231	25	10.8	SubName: Full=Toxin beta-grasp domain protein; Flags: Precur...
a3h3z5	399	43	10.8	SubName: Full=Zona occludens toxin;
a1w3y8	400	43	10.8	SubName: Full=Zonular occludens toxin;
a1eic2	250	27	10.8	SubName: Full=Toxin co-regulated pilus biosynthesis outer me...
r4fes4	128	23	10.7	SubName: Full=Toxin-antitoxin addiction module toxin compone...
r3w4z4	124	23	10.7	SubName: Full=MazF family toxin-antitoxin system, toxin comp...

r3tw59	127	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3sey8	164	23	10.7	SubName: Full=Zeta toxin;
r3rah3	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3qz74	164	23	10.7	SubName: Full=Zeta toxin;
r3qkg1	164	23	10.7	SubName: Full=Zeta toxin;
r3pxr3	164	23	10.7	SubName: Full=Zeta toxin;
r3kzx2	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3ex06	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3e312	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3dud8	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r3c6f1	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r2x9l4	164	23	10.7	SubName: Full=Zeta toxin;
r2muk5	164	23	10.7	SubName: Full=Zeta toxin;
r2lbx6	164	23	10.7	SubName: Full=Zeta toxin;
r2d1m1	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1zua7	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1z2a0	164	23	10.7	SubName: Full=Zeta toxin;
r1y137	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1xz82	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1x0h7	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1wxi2	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1wr64	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1w8u0	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1w2c0	123	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1vfr5	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1kp87	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1k4q8	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1iv81	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
r1gas5	188	23	10.7	SubName: Full=Putative tri7-like toxin biosynthesis protein;...
r0w3t5	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
r0ult5	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
r0uex0	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
r0ty19	144	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
q9y8l6	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9uzi0	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9pd15	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9l380	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9jzb0	155	23	10.7	SubName: Full=Putative toxin-activating protein;
q9gua7	85	23	10.7	RecName: Full=Toxin BmKa3; AltName: Full=Alpha-toxin 3; AltN...
q9agx2	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q977a7	128	23	10.7	SubName: Full=Putative toxin;
q95wd1	85	23	10.7	RecName: Full=Toxin CsE8; AltName: Full=Neurotoxin 8; Flags:...
q95p69	85	23	10.7	RecName: Full=Toxin BmKT; Short=BmK T; AltName: Full=AGAP; A...
q92tf3	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8zrl3	143	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
q8xux8	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8lt24	124	23	10.7	SubName: Full=Cholera toxin B subunit; SubName: Full=Cholera...
q8l237	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q8jfx7	103	23	10.7	RecName: Full=Muscarinic toxin BM14; Flags: Precursor;
q8f7e4	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8ejj7	182	23	10.7	SubName: Full=Toxin-antitoxin system antidote;
q8ech6	133	23	10.7	SubName: Full=Toxin-antitoxin system toxin HepN family;
q8e893	101	23	10.7	SubName: Full=Toxin-antitoxin system toxin component RelE fa...
q8e856	103	23	10.7	SubName: Full=Toxin-antitoxin system toxin RelE family;
q8cmc8	96	23	10.7	SubName: Full=ISSod9 nucleotidyltransferase domain protein; ...
q83iy8	168	23	10.7	SubName: Full=Putative secreted autotransporter toxin;
q83c40	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q82xi4	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q82uu9	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7x2f1	95	23	10.7	SubName: Full=Toxin;
q7u8p1	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u2x7	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u2d9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7u1q3	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7tyg3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7twl0	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7ncs9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7d5l4	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7apc4	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q72p16	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6zen6	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6w1h7	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6sv31	319	34	10.7	SubName: Full=Putative alpha toxin; Flags: Precursor;
q6n2a8	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5v381	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5pmi5	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
q5p6v1	115	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5p363	153	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5p2r5	105	23	10.7	SubName: Full=CcdB-like toxin protein;
q5nxa8	125	23	10.7	SubName: Full=INTERPRO: probable CcdB protein, possible toxi...
q5n0n5	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5jif0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5jhn2	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5jhe5	160	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5hx88	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
q5g8a8	84	23	10.7	RecName: Full=Toxin-like TcoNTxP1; AltName: Full=Insect-like...
q5e1y6	163	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
q57539	327	35	10.7	SubName: Full=35.8-kilodalton mosquitocidal toxin;
q57193	124	23	10.7	SubName: Full=Cholera enterotoxin B subunit; SubName: Full=C...
q53we5	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q52562	139	23	10.7	RecName: Full=Plasmid stability protein StbB; AltName: Full=...
q4wyy7	363	39	10.7	SubName: Full=Toxin biosynthesis proten (Fum3), putative;
q4wv05	346	37	10.7	SubName: Full=Toxin biosynthesis protein (GliH), putative;
q4tua4	85	23	10.7	RecName: Full=Alpha-toxin 4; AltName: Full=BmK alpha IV; Alt...
q4c453	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q48el8	449	48	10.7	SubName: Full=Insecticidal toxin protein, putative;
q48b53	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q47d14	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q46953	109	23	10.7	RecName: Full=Probable toxin YpjF;
q46102	189	23	10.7	SubName: Full=CdtC; SubName: Full=Cytolethal distending toxi...
q3r3h5	151	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3j849	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3iv54	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3db07	109	23	10.7	SubName: Full=Exfoliative toxin A;
q3bkf9	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3ath3	116	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q3asu6	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3asu2	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3aqz0	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q39sm0	96	23	10.7	SubName: Full=Toxin, RelE family;
q39ku4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q32k46	104	23	10.7	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
q31l92	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2vbn1	86	23	10.7	RecName: Full=Muscarinic toxin MTX6; Flags: Precursor;
q2nme3	86	23	10.7	RecName: Full=Beta-toxin Tz1; AltName: Full=PT-beta NaTx14.1...
q2j9w6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q2j943	450	48	10.7	SubName: Full=Zeta toxin;
q2j4w0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j394	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j2m3	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2irk7	107	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q2fsm4	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2fl06	120	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q27tb1	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q20x12	96	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE;
q1rgs2	113	23	10.7	SubName: Full=Toxin of toxin-antitoxin (TA) system VapC;
q1nsa5	175	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nn61	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nm80	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nk05	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1j2y4	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ix03	110	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q1gva4	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1gpw9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1gpj6	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1eg63	85	23	10.7	SubName: Full=Sodium toxin peptide BmKTa;
q1bmj5	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1bl11	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q13dr3	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0pc58	189	23	10.7	SubName: Full=Cytolethal distending toxin C; Flags: Precurso...
q0k7l6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0i5p8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0bfh0	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0a691	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q07pj8	113	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
q07338	289	31	10.7	RecName: Full=Toxin tox21A; AltName: Full=Insect-selective n...
q04yl0	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q04uw6	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q040x6	83	23	10.7	SubName: Full=Toxin-antitoxin addiction module regulator Maz...
q02bq0	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q01p26	149	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
p84693	84	23	10.7	RecName: Full=Toxin To5; AltName: Full=PT-Arthr*-beta* NaTx2...
p82811	61	23	10.7	RecName: Full=Insect toxin BsIT1; Short=Insect toxin 1; AltN...
p81761	62	23	10.7	RecName: Full=Lepidopteran-selective toxin; AltName: Full=BT...
p69943	47	23	10.7	RecName: Full=Toxin AETX-1; AltName: Full=AETX I;
p69930	80	23	10.7	RecName: Full=Peptide toxin Am-2; AltName: Full=Peptide toxi...
p69928	74	23	10.7	RecName: Full=Peptide toxin Am-3; AltName: Full=Peptide toxi...
p64595	154	23	10.7	RecName: Full=Toxin YhaV; EC=3.1.-.-; AltName: Full=Ribonucl...
p64594	154	23	10.7	RecName: Full=Toxin YhaV; EC=3.1.-.-; AltName: Full=Ribonucl...
p59355	64	23	10.7	RecName: Full=Alpha-mammal toxin Lqh2; AltName: Full=Lqh II;...
p56637	94	23	10.7	RecName: Full=Beta-insect excitatory toxin Bj-xtrIT; Short=B...
p45663	87	23	10.7	RecName: Full=Beta-toxin Cn5; AltName: Full=CngtII; Flags: P...
p17727	112	23	10.7	RecName: Full=Mu-ctenitoxin-Pn1a; Short=Mu-CNTX-Pn1a; AltNam...
p15223	86	23	10.7	RecName: Full=Toxin Cn1; AltName: Full=Toxin II.14; Short=To...
p0c8w4	91	23	10.7	RecName: Full=Potassium channel toxin TstKMK; AltName: Full=...
p0c5j0	85	23	10.7	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3h; Flag...
p0c5i7	85	23	10.7	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3e; Flag...
p0c5i5	85	23	10.7	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3c; Flag...
p0c5i3	85	23	10.7	RecName: Full=Beta-insect depressant toxin Lqh-dprIT3a; Flag...
p0c1x7	83	23	10.7	RecName: Full=Ardiscretin; AltName: Full=PT-Arthr-beta* NaTx...
p0af97	150	23	10.7	RecName: Full=Toxin-antitoxin biofilm protein TabA homolog;
p0af96	150	23	10.7	RecName: Full=Toxin-antitoxin biofilm protein TabA;
p01486	65	23	10.7	RecName: Full=Alpha-toxin Bot11; AltName: Full=BotXI; AltNam...
p01396	72	23	10.7	RecName: Full=Alpha-elapitoxin-Dpp2a; Short=Alpha-EPTX-Dpp2a...

p01381	72	23	10.7	RecName: Full=Alpha-elapitoxin-Ast2b; Short=Alpha-EPTX-Ast2b...
p01380	70	23	10.7	RecName: Full=Alpha-elapitoxin-Ast2a; Short=Alpha-EPTX-Ast2a...
p00610	119	23	10.7	RecName: Full=Basic phospholipase A2; Short=svPLA2; EC=3.1.1...
o88931	192	23	10.7	RecName: Full=Ras-related C3 botulinum toxin substrate 2; Al...
o53779	135	23	10.7	RecName: Full=Probable ribonuclease VapC26; Short=Probable R...
o53683	142	23	10.7	RecName: Full=Probable ribonuclease VapC25; Short=Probable R...
o53610	133	23	10.7	RecName: Full=Probable ribonuclease VapC1; Short=Probable RN...
o53219	141	23	10.7	RecName: Full=Probable ribonuclease VapC38; Short=Probable R...
o50411	130	23	10.7	RecName: Full=Probable ribonuclease VapC46; Short=Probable R...
o49165	356	38	10.7	SubName: Full=NADPH HC toxin reductase;
o49164	356	38	10.7	SubName: Full=NADPH HC toxin reductase;
o28583	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o27890	171	23	10.7	RecName: Full=Endoribonuclease Nob1; Short=RNase Nob1; EC=3....
n9xic5	150	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
n6wn54	87	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
n6w6z2	194	23	10.7	SubName: Full=PIN family toxin-antitoxin system;
n4y214	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
n4xs73	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
n4vkv9	309	33	10.7	SubName: Full=Toxin biosynthesis;
n4qr70	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4qn95	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4q9t2	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n4hyy2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4hnm3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4gug4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4gjm1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4gi75	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4fwn7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4fqm0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4f339	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4eav5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4dzh6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4dt01	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4d6j4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3trv2	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3t2p0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3s7d2	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3rnl1	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3ra88	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3qun4	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3pmr6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3pfb0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3nll8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3knh7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3k749	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3iaf9	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3i743	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3hb55	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3h4e0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3g637	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3g3w0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3ab08	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2y6l5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2wn23	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2s6z6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2rwm6	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2rqd9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2rdh4	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...

n2r9q4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2nhe9	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2mxz0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2mhw0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2mcl1	206	23	10.7	SubName: Full=Toxin coregulated pilin;
n2lln4	206	23	10.7	SubName: Full=Toxin coregulated pilin;
n2kp16	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2j587	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2ily0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2i0s7	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2hvp9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2grx7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2g2r5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2eza3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2dus5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2afi7	87	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
n2aen3	87	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
n1vj45	132	23	10.7	SubName: Full=Cytolethal distending toxin protein C;
n1u7n5	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
n1syq4	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n1sg09	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n1laj3	317	34	10.7	SubName: Full=Putative cytolethal distending toxin subunit B...
n1kw74	317	34	10.7	SubName: Full=Putative cytolethal distending toxin subunit B...
n1kqb5	317	34	10.7	SubName: Full=Putative cytolethal distending toxin subunit B...
n1kdt6	317	34	10.7	SubName: Full=Putative cytolethal distending toxin subunit B...
n1jzr4	317	34	10.7	SubName: Full=Putative cytolethal distending toxin subunit B...
m9xrc4	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
m9jsu2	206	23	10.7	SubName: Full=Toxin coregulated pilin;
m9hhu4	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9g4q5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9frl7	100	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9fej3	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9f8a6	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9f747	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9db15	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9az80	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9ama1	92	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8yqe6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8vty9	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8v443	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8uuy1	155	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8tc49	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8s894	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8rhf0	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8rc00	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8pw69	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8ngq1	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8nbk9	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8n784	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8l305	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8l1u8	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m7v888	100	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
m7mn51	153	23	10.7	SubName: Full=RTX toxin activating protein; EC=2.3.1.-;
m7ky25	153	23	10.7	SubName: Full=RTX toxin activating protein; EC=2.3.1.-;
m7jk62	153	23	10.7	SubName: Full=RTX toxin activating protein; EC=2.3.1.-;
m7hc32	192	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7g0f9	165	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
m7ftz5	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;

m7f8k5	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
m7euw7	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6ykg9	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6wcw5	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6vh46	98	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6vg04	138	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6uv10	115	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6tsn9	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6t7l1	115	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6smq6	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6rcn5	87	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6qqb8	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6nma8	87	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6jkn3	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6jg74	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6ixs4	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6hrc3	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6g4h5	85	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
m6fj21	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6fgu6	76	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
m6br83	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6a7e1	87	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5zs70	87	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5z815	138	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5vdz3	138	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5v2z2	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5ux51	115	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5uld7	87	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5h6y4	99	23	10.7	SubName: Full=Death on curing protein, Doc toxin;
m5dml8	449	48	10.7	SubName: Full=HipA toxin;
m4rb99	89	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m3k3z4	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
m3ies5	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3gy21	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3gul2	102	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m3gnx3	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3fy33	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3fij6	160	23	10.7	SubName: Full=Xre family toxin-antitoxin system antitoxin co...
m3dqk3	87	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m3cp29	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3brv9	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3abz3	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3aaw8	174	23	10.7	SubName: Full=RTX toxin-activating lysine-acyltransferase;
m2w2b1	134	23	10.7	SubName: Full=Toxin secretion/phage lysis holin family prote...
m2tar1	104	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m2sm24	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2nxn0	158	23	10.7	SubName: Full=Putative toxin to DivIC;
m2njj3	109	23	10.7	SubName: Full=Toxin of the YpjF-YfjZ toxin-antitoxin system;...
m2dlj7	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2ch53	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2cfh8	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2c9f5	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2c7e3	139	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2bw64	136	23	10.7	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2bn59	85	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
m2bdl6	85	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
m2bcw1	85	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
m1zpw6	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;

m1z7v6	111	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
m1yt17	420	45	10.7	SubName: Full=Zona occludens toxin;
m1xyw5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1qxt7	135	23	10.7	SubName: Full=Toxin secretion/phage lysis holin protein;
m1ncd0	94	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
m1mes2	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1iqd9	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ihv5	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1igs8	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ib60	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1iaf6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1gfi8	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
m0lzg1	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0lpy0	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0hxw8	124	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fmv0	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fa49	155	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0eij6	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0e2r1	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ded2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0cdn5	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bzr7	146	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bjz4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0bi93	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ap63	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0abt4	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xzu4	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xjd9	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9wqj4	154	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9w086	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9uc85	183	23	10.7	SubName: Full=Iron dependent repressor, diptheria toxin type...
l9p3e7	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9ntf8	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9nc07	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9mtb6	181	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9mlv6	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9ly12	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
l9ir68	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9i660	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9i284	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9hhh1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9gw72	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9gfa3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9g917	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9fl37	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9f3m9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9f1z5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9eg40	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9dux9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9du76	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9cpj9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9cnb2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9cn74	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9bn45	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9bds8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9b3y4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9ac03	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l9a131	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;

l8zyc4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l8zec1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l8ypu2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l8yja1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l8yiz9	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
l8vah9	165	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
l8v5c4	165	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
l8v2z8	184	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8unj0	184	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l8q5k3	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
l8phk8	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8pan5	152	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8ntx1	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
l8m7c1	125	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
l8m4x9	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lyc4	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lve5	115	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
l8lj90	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8lh47	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8l8n7	140	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
l8kiz8	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8a914	122	23	10.7	SubName: Full=Death on curing protein, Doc toxin;
l7v6f4	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fiz0	81	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7f8p1	96	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7etd2	103	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l7et69	88	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7ejn9	129	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
l7e8z9	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l5ux67	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5sum3	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5sqx7	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5sd47	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5s9m5	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5r7l8	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5qw14	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5p7q6	155	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
l5kt89	206	23	10.7	SubName: Full=Anthrax toxin receptor 1;
l5jam9	125	23	10.7	SubName: Full=Toxin YeeV;
l5i3x3	154	23	10.7	SubName: Full=Toxin YhaV;
l5gls1	154	23	10.7	SubName: Full=Toxin YhaV;
l5ggp6	93	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
l5et47	154	23	10.7	SubName: Full=Toxin YhaV;
l4xlr0	154	23	10.7	SubName: Full=Toxin YhaV;
l4xk75	154	23	10.7	SubName: Full=Toxin YhaV;
l4wku6	154	23	10.7	SubName: Full=Toxin YhaV;
l4v2z5	154	23	10.7	SubName: Full=Toxin YhaV;
l4trd9	154	23	10.7	SubName: Full=Toxin YhaV;
l4pe50	154	23	10.7	SubName: Full=Toxin YhaV;
l4nvc8	154	23	10.7	SubName: Full=Toxin YhaV;
l4lmb1	154	23	10.7	SubName: Full=Toxin YhaV;
l4k877	154	23	10.7	SubName: Full=Toxin YhaV;
l4jz06	154	23	10.7	SubName: Full=Toxin YhaV;
l4jih0	154	23	10.7	SubName: Full=Toxin YhaV;
l4j0s1	154	23	10.7	SubName: Full=Toxin YhaV;
l4ipa7	154	23	10.7	SubName: Full=Toxin YhaV;
l4hsf8	154	23	10.7	SubName: Full=Toxin YhaV;
l4fxi3	154	23	10.7	SubName: Full=Toxin YhaV;

l4ey72	154	23	10.7	SubName: Full=Toxin YhaV;
l4e450	154	23	10.7	SubName: Full=Toxin YhaV;
l4cur3	154	23	10.7	SubName: Full=Toxin YhaV;
l4cae3	154	23	10.7	SubName: Full=Toxin YhaV;
l3y6n2	154	23	10.7	SubName: Full=Toxin YhaV;
l3wrb5	154	23	10.7	SubName: Full=Toxin YhaV;
l3we64	154	23	10.7	SubName: Full=Toxin YhaV;
l3w182	142	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3v7r4	154	23	10.7	SubName: Full=Toxin YhaV;
l3v2e0	154	23	10.7	SubName: Full=Toxin YhaV;
l3tle6	154	23	10.7	SubName: Full=Toxin YhaV;
l3tis8	154	23	10.7	SubName: Full=Toxin YhaV;
l3s0g6	154	23	10.7	SubName: Full=Toxin YhaV;
l3r9w8	154	23	10.7	SubName: Full=Toxin YhaV;
l3r7d6	154	23	10.7	SubName: Full=Toxin YhaV;
l3qpg2	154	23	10.7	SubName: Full=Toxin YhaV;
l3p0f5	93	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
l3p0c6	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3nyj9	154	23	10.7	SubName: Full=Toxin YhaV;
l3m071	154	23	10.7	SubName: Full=Toxin YhaV;
l3jq55	154	23	10.7	SubName: Full=Toxin YhaV;
l3jg34	154	23	10.7	SubName: Full=Toxin YhaV;
l3izy6	154	23	10.7	SubName: Full=Toxin YhaV;
l3ink3	154	23	10.7	SubName: Full=Toxin YhaV;
l3h8d4	154	23	10.7	SubName: Full=Toxin YhaV;
l3h5p4	125	23	10.7	SubName: Full=Toxin YeeV;
l3f485	154	23	10.7	SubName: Full=Toxin YhaV;
l3dzu2	154	23	10.7	SubName: Full=Toxin YhaV;
l3cpk6	154	23	10.7	SubName: Full=Toxin YhaV;
l3c349	154	23	10.7	SubName: Full=Toxin YhaV;
l3an92	125	23	10.7	SubName: Full=Toxin YeeV;
l3a5u5	154	23	10.7	SubName: Full=Toxin YhaV;
l2z162	154	23	10.7	SubName: Full=Toxin YhaV;
l2xzy7	154	23	10.7	SubName: Full=Toxin YhaV;
l2x9q6	154	23	10.7	SubName: Full=Toxin YhaV;
l2u3w9	154	23	10.7	SubName: Full=Toxin YhaV;
l2syw9	164	23	10.7	SubName: Full=Zeta toxin;
l2suc0	164	23	10.7	SubName: Full=Zeta toxin;
l2pz57	164	23	10.7	SubName: Full=Zeta toxin;
l2mb31	164	23	10.7	SubName: Full=Zeta toxin;
l2lwr2	224	24	10.7	SubName: Full=Zeta toxin;
l2k1y8	164	23	10.7	SubName: Full=Zeta toxin;
l2jkf1	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
l2ils6	164	23	10.7	SubName: Full=Zeta toxin;
l2i1q1	164	23	10.7	SubName: Full=Zeta toxin;
l2hja0	164	23	10.7	SubName: Full=Zeta toxin;
l2elz6	270	29	10.7	SubName: Full=Zonular occludens toxin;
l1rci3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1r8w1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1q5u9	142	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1q5e4	192	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
l1ps10	270	29	10.7	SubName: Full=Zeta toxin;
l1pmu5	146	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l1p0r2	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1nwi5	122	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l1nsi4	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1n8b5	97	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
l1n1k0	196	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...

l1mxh5	121	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
l1mjz8	102	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
l1lrl5	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1l1c4	298	32	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kxw0	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1kvr7	199	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1kv99	169	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kur8	94	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
l1kt07	80	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1krx7	67	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
l1hz73	137	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
l1h6i1	308	33	10.7	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1gw09	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1gqw3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1g2s1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1fq85	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1fhu4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1em68	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1egg0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1dz52	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1db76	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1d068	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1ctg4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1bwc6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1bng8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1bl07	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1ahv5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1a8t8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l1a864	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0z669	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0yvz9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0yks7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0xnl0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0xg82	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0xfz6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
l0w8v3	84	23	10.7	SubName: Full=Antitoxin of toxin-antitoxin system Phd;
l0rq72	317	34	10.7	SubName: Full=Cytolethal distending toxin subunit B;
l0rme5	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0r1i0	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qxm3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qrt2	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qrj6	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qq39	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qnj9	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qlv9	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qls9	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qkv7	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qf49	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qcj8	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qab5	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q9e6	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q3h0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q284	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q1x1	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pxu8	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0psr7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pqr1	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ny43	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0nxe9	85	23	10.7	SubName: Full=Putative TOXIN VAPB19;
l0nqi3	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0npw2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nnx8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nmz4	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nmy6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0lry1	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0lnp2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0i9u0	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gcw8	104	23	10.7	SubName: Full=Toxin-like protein 14; Flags: Precursor;
l0fgi0	115	23	10.7	SubName: Full=Toxin ChpB;
l0f7d3	111	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
l0e484	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dw77	173	23	10.7	SubName: Full=Zeta toxin family protein;
l0dvt6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0drx9	104	23	10.7	SubName: Full=CcdB-like toxin protein;
l0dc64	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zr29	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9z6p1	85	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
k9yv11	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ynn3	115	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9ynl2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9x881	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9wtu5	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ws95	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
k9wcc2	154	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vjj7	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vct9	118	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9v2b0	115	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9uxx9	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9uve5	146	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9u2j5	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9tjg3	167	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9teq5	142	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9tbw0	132	23	10.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
k9taj4	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9syv0	139	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9sq28	95	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
k9rfh3	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qql1	119	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9pgj3	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9pg57	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9lz65	91	23	10.7	SubName: Full=Potassium channel blocker-like toxin beta-KTx;...
k9g819	206	23	10.7	SubName: Full=MFS toxin efflux pump (AflT), putative;
k9fug2	206	23	10.7	SubName: Full=MFS toxin efflux pump (AflT), putative;
k9f319	155	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
k9emw1	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9c513	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8zp48	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8znf0	83	23	10.7	SubName: Full=Antitoxin of toxin-antitoxin stability family ...
k8zjv6	145	23	10.7	SubName: Full=Toxin-antitoxin toxin gnat family;
k8y570	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8vap2	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8uyx1	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8ua91	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8u688	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8tx34	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8szs8	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;

k8suz3	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8sri1	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8rmx3	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8rmr9	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8rks7	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k8nux9	97	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
k8m260	98	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k8lyi1	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8lp57	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k8ky52	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8kxf0	115	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8kty5	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8kmx6	85	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
k8k2u8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8jyj8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8iw56	87	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8fvm7	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8d937	98	23	10.7	SubName: Full=HigB toxin protein;
k8bqy6	124	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8b402	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7yus3	141	23	10.7	SubName: Full=Toxin of toxin-antitoxin system;
k7vwu9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7tev4	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6zp20	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6y385	103	23	10.7	SubName: Full=Toxin higB-2;
k6y041	115	23	10.7	SubName: Full=Toxin higB-2;
k6xcl4	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6xcc7	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wm96	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6waj8	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6van1	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ug32	111	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
k6tph3	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6sf52	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6rbv5	128	23	10.7	SubName: Full=Putative membrane protein, putative toxin regu...
k6p9x6	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6p1n7	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6nvp8	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6nne7	354	38	10.7	SubName: Full=Zonula occludens toxin;
k6n5w2	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6n2f5	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6mq99	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6mhm7	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6ls47	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6lim6	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6lci7	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6l1q9	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6kv55	354	38	10.7	SubName: Full=Zonula occludens toxin;
k6kuk2	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6kdl0	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k6k8z3	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6k0a1	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6jmy1	87	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k6iyu0	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6idf4	138	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k6i481	76	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
k6i1l9	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6g7x3	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...

k6fln6	76	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN d...
k6f652	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6eu30	188	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k6et47	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6e1e1	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6crr8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5yx83	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5r8d5	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5r0b4	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5qqa6	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5qax5	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5pun5	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5pnz2	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5j1z3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5j0m5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5j029	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
k5ikh2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5icx1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5huq6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5hu85	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5hhl4	355	38	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
k5hes7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5ggg4	100	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5fmp2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5fli9	308	33	10.7	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
k5f4z5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5ew73	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5end5	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5e8j3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5e811	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k5d9n6	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k5cpi3	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5cci3	138	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k5c4y4	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
k5b670	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k5b3e5	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k4zzw6	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k4zu52	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
k4zc27	120	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
k4yzk2	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k4yr80	173	23	10.7	SubName: Full=GNAT family toxin-antitoxin system;
k4x8e9	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4x6v0	98	23	10.7	SubName: Full=Putative toxin-plasmid maintenance system kill...
k4x2l7	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4wwq9	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k4smq6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4qhn1	102	23	10.7	SubName: Full=Pertussis toxin transport protein;
k4ibl0	327	35	10.7	SubName: Full=Serine kinase toxin of HipAB toxin-antitoxin m...
k3v9d3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3tmh6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3sws3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3scx2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3s9t1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3rxb6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3rk34	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3qq05	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3qbz7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3q4h1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;

k3pvq5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3ney4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3ne11	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3n2g8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3m454	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3lyx1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3lwn9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3lj85	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3kew1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3jcg7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3isf9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3hur5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3hmd7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3gvy3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3gbx7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3g8h7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3fp45	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3fcx3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3ezr1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3ekg8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3edp3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3eda1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3cgc8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3c1p7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3bzh3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3bha8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3bc22	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3b9y5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3b7x7	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3abd2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2zpa9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2z8a0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2yhl5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2yf93	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2y4l2	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
k2y2x3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k2wkp5	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
k2uif9	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
k2u2a4	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
k2u279	469	50	10.7	SubName: Full=Insecticidal toxin protein;
k2st30	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2q6m7	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2m4c5	96	23	10.7	SubName: Full=CcdB-like toxin protein;
k2lzv8	94	23	10.7	SubName: Full=Addiction module toxin RelE/StbE;
k2lwq9	122	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k2gjy1	99	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
k2dh46	146	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2deh5	156	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2d3e0	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k2cs59	87	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
k2atl7	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1xwl3	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1xnp0	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1x6g6	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1rg42	110	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
k1q8z8	195	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
k1l3f7	124	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1fcu6	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...

k1f715	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k1f5b1	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k1erj8	354	38	10.7	SubName: Full=Zonula occludens toxin;
k1efa6	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k1c5d1	393	42	10.7	SubName: Full=Zonular occludens toxin;
k1bpm3	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0vty1	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0q395	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0psj9	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0phh9	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0pe34	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0hnf8	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
k0f9b9	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0f4a5	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0en66	98	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
k0em23	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0cb06	105	23	10.7	SubName: Full=CcdB-like toxin protein;
j9zdj7	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j9yf50	98	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
j9hjr3	393	42	10.7	SubName: Full=Zonular occludens toxin;
j9dxt7	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j9d1e7	112	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
j9b6d0	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j8yar2	155	23	10.7	SubName: Full=Putative toxin-activating protein;
j8y5v5	115	23	10.7	SubName: Full=Putative plasmid toxin protein PemK;
j8x3v2	144	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
j8wwz5	144	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
j8whb1	144	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
j8veg0	165	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8u372	144	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
j8sgk8	91	23	10.7	SubName: Full=CcdB-like toxin protein;
j8sfr8	89	23	10.7	SubName: Full=Addiction module toxin;
j8r7a2	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j8q5v2	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j8dy60	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j7v1x4	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7tdp3	202	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j7td49	213	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
j7qvm4	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
j7jif0	123	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7jac9	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7ja83	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7cl45	140	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j7ck29	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j7ci75	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j7ccw9	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j7brw1	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j7ax40	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j7avw6	140	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j7atz9	140	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j7an01	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6z769	142	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6w4i7	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6s1d5	140	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6rmt8	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j6ram9	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j6r7r5	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6qv03	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...

j6pm27	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6li59	120	23	10.7	SubName: Full=Programmed cell death toxin MazF;
j6kdp5	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6i674	88	23	10.7	SubName: Full=Antidote-toxin recognition MazE;
j6fhn7	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6f2n4	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6e0s5	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j6clb8	125	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
j6bvz9	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j6bj51	154	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6agk0	163	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j5kxg0	87	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
j5c4q3	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j5bjw5	154	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j4zl77	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j4vj90	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j4tme6	146	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4t9g2	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4qe97	55	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
j4kh65	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j4kar2	252	27	10.7	SubName: Full=Zeta toxin;
j4k6c2	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4jby2	178	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j3jkh9	171	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j3ic47	95	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j3gi25	95	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3f987	95	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3ezq7	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j3epd4	140	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j3ehh3	87	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j3cgy7	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3c9t7	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3awh9	172	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
j3ank1	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2zij6	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2z0d6	83	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
j2yvl5	76	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j2yki3	198	23	10.7	SubName: Full=Toxin-antitoxin system antitoxin component, TI...
j2ykb6	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j2wiv9	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2vk83	160	23	10.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2ttn6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2ttd5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2r101	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2q0h5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2lum1	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2lsw1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2ljf5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2jtc4	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2imc1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2hme2	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2gy54	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2gxw4	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2fj87	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
j2eh00	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2e1d4	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2dlv4	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2ccf5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

j2b8g0	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1zlp0	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1ybd3	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1xh05	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1wz08	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1w824	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1vfl1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1v3u7	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1uua7	253	27	10.7	SubName: Full=Toxin PezT;
j1umz6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1u4p9	252	27	10.7	SubName: Full=Toxin PezT;
j1ttn0	252	27	10.7	SubName: Full=Toxin PezT;
j1tp16	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1t3f5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1s2u9	123	23	10.7	SubName: Full=Zeta toxin family protein;
j1pqy6	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1p8r8	252	27	10.7	SubName: Full=Zeta toxin family protein;
j1msc8	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1mi80	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1mf38	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1lju3	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1kgp0	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1ifb4	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1cis9	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
j1byz5	213	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j1bjb0	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j1akv1	104	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0zsm6	104	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0yum8	252	27	10.7	SubName: Full=Toxin PezT;
j0y7n0	253	27	10.7	SubName: Full=Toxin PezT;
j0y0e8	129	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j0wbh3	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0w8b6	253	27	10.7	SubName: Full=Zeta toxin family protein;
j0w7m1	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0vqr1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0vg42	98	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
j0ved4	252	27	10.7	SubName: Full=Zeta toxin family protein;
j0ved3	86	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
j0tap6	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
j0sns7	87	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
j0qqg1	92	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
j0qa68	402	43	10.7	SubName: Full=Vacuolating toxin;
j0ne05	97	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
j0lz89	145	23	10.7	SubName: Full=Toxin-antitoxin toxin gnat family;
j0lx68	83	23	10.7	SubName: Full=Antitoxin of toxin-antitoxin stability family ...
j0k3a5	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0i010	150	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0eyn6	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
j0er16	150	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j0ec38	129	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
j0czi3	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
j0b375	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
j0a0b6	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9wms6	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9uyq9	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9qey4	91	23	10.7	SubName: Full=YafQ family addiction module toxin component;
i9paq9	270	29	10.7	SubName: Full=Zeta toxin;
i9nx69	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;

i9msp1	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9ke90	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9jd69	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9ibd5	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9h7v4	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9fsp1	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
i9cai5	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8qvs9	105	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
i8qfs3	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8j727	137	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
i7mby9	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i7f9i2	92	23	10.7	SubName: Full=Toxin, RelE family;
i6ybz5	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y9g6	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y866	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6y7e6	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6x8e9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6syb2	123	23	10.7	SubName: Full=Toxin secretion/phage lysis holin; SubName: Fu...
i6rum4	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rtk2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rc52	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qz25	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qyd1	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6fuf2	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
i6d361	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i6ay15	160	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6arb9	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i5zih9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5zf62	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5yn47	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5y095	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5xlq5	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5xfi1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5wr31	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5wbm9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5vql4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5ve97	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5v1x2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5uaf1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5tx46	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5tur6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5sth8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5sl55	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5sfq1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5rqi0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5r142	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5qsf8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5q5m9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5ppw2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5pkx7	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5p0w6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5n3f4	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5n1x9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5mwb9	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5mt92	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5m8l0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5led4	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5l997	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;

i5l0h0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5ky31	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5jy60	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5jn30	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5jhm6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5iy63	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5ibd3	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5hxw8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5hvt1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5hjd8	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5gp04	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5geh2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5g5a0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5f5z9	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5f4p7	104	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5f1n0	308	33	10.7	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5ewn3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5ewj1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5dlg2	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5dke6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5dfz0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i5b6l2	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4z5r2	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4vsb0	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4rxg2	93	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
i4r5z5	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4qg56	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4q6c3	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4jfm3	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4j6t8	154	23	10.7	SubName: Full=Toxin YhaV;
i4i8a9	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hx84	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hvs2	107	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
i4hjf2	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hj32	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hcd8	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4h323	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gru6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gf00	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4gcp8	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g7q2	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g0t4	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fk72	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4bwr1	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b4e2	120	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4b133	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ytk5	178	23	10.7	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
i3x6a1	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x4k8	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x432	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3w4a1	101	23	10.7	SubName: Full=CcdB toxin protein;
i3w3z8	132	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i3w354	132	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i3vzq7	101	23	10.7	SubName: Full=CcdB toxin protein;
i3cxr2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bxt3	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3bnq1	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3aml6	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

i3aa39	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2zvc8	176	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2zv84	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2ypi9	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2y8h0	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2x6v2	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2vz41	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2vps3	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2v128	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2uvi1	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
i2uhc4	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2te40	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
i2saw3	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
i2s5b9	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2ry54	154	23	10.7	SubName: Full=Toxin with endonuclease activity YhaV;
i2qy83	154	23	10.7	SubName: Full=Toxin YhaV;
i2qvs9	142	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2nwl9	144	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i2ie87	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2fg16	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2f9r7	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2f4p4	134	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
i0xq32	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
i0uv70	122	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0uu56	209	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
i0ub18	131	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
i0tzn8	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
i0t5y3	124	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
i0s742	252	27	10.7	SubName: Full=Zeta toxin;
i0nvp7	253	27	10.7	SubName: Full=Zeta toxin family protein;
i0ntr0	253	27	10.7	SubName: Full=Zeta toxin family protein;
i0n8e2	253	27	10.7	SubName: Full=Zeta toxin family protein;
i0kv44	99	23	10.7	SubName: Full=Toxin antitoxin genome stability system,preven...
i0dc13	126	23	10.7	SubName: Full=Anthrax toxin expression trans-acting positive...
i0d5u1	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
i0a4n9	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component;
h9zuy1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9zbw3	211	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1 iso...
h8z3t5	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z2v4	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z2k4	89	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
h8z0h9	123	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8yy79	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8mii3	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i3u9	118	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i3q5	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hzu3	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hyr3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hww8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ht70	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hr31	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hqi2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hmj7	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hk64	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8gf71	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8g4y3	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ez46	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewq0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h8eut2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8etp0	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8cun3	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8clw0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8ch30	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8cec9	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8c800	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8c237	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8byi2	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8bpz9	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8bpj8	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8bgr6	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8bdn5	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8b732	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8b0u8	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8anx0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8amf2	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8agv3	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8abu6	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8a4r9	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h8a2n9	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7zxy0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7zs75	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7zfx3	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7z908	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7z7e8	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7z2m3	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7ynn4	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7yi89	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7y8x4	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7y022	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7xxc4	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7xsi0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7xn79	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7xgi4	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7x6v2	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7wzc0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
h7wff9	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7vjd7	190	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7vcp6	190	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7vb43	190	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7v249	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7uza9	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7ums4	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7uhw8	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7tme3	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7t4t6	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7sz72	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7st08	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7sej1	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7sbx6	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7s416	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7rv46	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7rjh4	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7rgf2	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7rat1	170	23	10.7	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7egl0	101	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h6sey0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h6s8i3	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s7w6	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s635	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s504	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rv36	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rjv6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6r6b4	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6qib9	136	23	10.7	SubName: Full=Toxin of toxin-antitoxin;
h6p5s7	100	23	10.7	SubName: Full=Toxin-antitoxin system protein;
h5wqw8	139	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
h5u2c3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5su27	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5rih2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5r7f5	142	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5r3c4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5qp19	142	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5qn36	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5q7x4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5ptn5	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5ph00	142	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h5nyi9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5ny34	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h5ni91	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5n0t5	141	23	10.7	SubName: Full=Toxin YkfI domain protein;
h5mp10	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5m9r9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5lvp4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5lez9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5kpl3	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5huh3	185	23	10.7	SubName: Full=Toxin B domain protein;
h5h0t0	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5gld6	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5fp95	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5fni2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5f8a8	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5ekx4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5eau4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5dtf5	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5dc46	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5cvz4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5cep4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5bzz2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5bjb8	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5b3j5	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5amj6	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h5a5q8	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4zmw9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4z1h0	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4yni6	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h4yag7	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h4ya77	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4y8a5	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h4xuf9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4xsm6	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h4xdc1	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4wy77	214	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
h4wk25	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4w1p4	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;

h4vla1	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4v9b2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4upi3	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4u7e6	154	23	10.7	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4thl3	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4tgd2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4t1b5	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4sjz6	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4s4c8	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4rpk0	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4r8l6	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4qsj4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4qa30	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4ptc6	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4nye7	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4nxa2	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4nfg1	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4mjz4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4mia4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4m1u9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4ll03	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4l6a3	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4kr87	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4kli4	114	23	10.7	SubName: Full=Toxin B domain protein;
h4jw71	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4j148	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4ik92	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4i560	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h4hnk8	127	23	10.7	SubName: Full=Toxin secretion/phage lysis holin family prote...
h4g932	242	26	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h4by57	210	23	10.7	SubName: Full=Beta-grasp domain toxin protein;
h3yw87	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h3yfy8	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h3x4r3	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h3shj7	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h3lig1	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h3lbc2	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h3l2l6	117	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h3l0w4	169	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
h3l071	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h3kxw4	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
h3k5k9	147	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h2r207	211	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1 (Rh...
h2c6c9	103	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
h1zww2	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1z2c9	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1yf16	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1x9e1	106	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
h1x954	106	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
h1wg52	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1snq5	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h1skm3	127	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h1ry85	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1p5j8	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1nzu6	89	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
h1lu84	111	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
h1lt54	147	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h1k0b6	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

h1ivl4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1isv6	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1gf02	140	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h1bxe2	154	23	10.7	SubName: Full=Toxin YhaV;
h1at57	137	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
h0la33	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
h0kip4	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h0k8d9	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0k2d5	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0hwm6	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0hir4	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0hb46	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0g982	151	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0fxr5	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0ftu2	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0eup5	191	23	10.7	SubName: Full=Putative HC-toxin synthetase;
h0d1p2	242	26	10.7	SubName: Full=Toxin, beta-grasp domain protein;
h0av00	242	26	10.7	SubName: Full=Toxin, beta-grasp domain protein;
g9zj20	195	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
g9zhz6	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9xlb8	107	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g9xkz5	149	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9wn76	98	23	10.7	SubName: Full=Txe/YoeB family addiction module toxin;
g9weg3	109	23	10.7	SubName: Full=YfjZ toxin protein;
g9uye3	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9usl1	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9ubc3	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9u077	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9ts95	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9taq7	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g9mbb9	92	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
g9ah53	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8xc79	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8fee9	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
g8fai0	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
g7zf27	110	23	10.7	SubName: Full=Antitoxin of the YoeB-YefM toxin-antitoxin sys...
g7ybi1	188	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
g7xqc4	110	23	10.7	SubName: Full=Structural toxin protein RtxA;
g7wee0	135	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
g7w2k0	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
g7uvn6	95	23	10.7	SubName: Full=RelE/StbE family addiction module toxin;
g7r1e0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qzh6	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qvs1	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qt43	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qr63	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qnd8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7q554	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7lkv2	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7hmk4	89	23	10.7	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
g7d8h0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7d1d8	95	23	10.7	SubName: Full=Toxin;
g7cue8	459	49	10.7	SubName: Full=RTX toxin-like protein;
g7bi95	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
g6z6f1	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
g6yun8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6nu32	126	23	10.7	SubName: Full=Zeta toxin family protein;
g6jb62	126	23	10.7	SubName: Full=Zeta toxin family protein;

g6i914	132	23	10.7	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
g6him6	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6h184	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6b1w1	140	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
g6ant7	243	26	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
g6alu5	136	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
g5slh2	137	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
g5s6u2	147	23	10.7	SubName: Full=Putative Shiga-like toxin A subunit;
g5rwe8	148	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g5qv47	147	23	10.7	SubName: Full=Putative Shiga-like toxin A subunit;
g5qkw7	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5qcc3	106	23	10.7	SubName: Full=Toxin-module SymE;
g5mjk0	148	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
g5bav0	192	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
g4pqd1	154	23	10.7	SubName: Full=Toxin of the SohB(PrlF)-YhaV toxin-antitoxin s...
g4ked6	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4kam2	317	34	10.7	SubName: Full=Cytolethal distending toxin subunit CdtB;
g4j2f3	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4ize3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4iyt9	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4hw37	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dh24	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4de88	122	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dd11	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4c8z1	148	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g3jmh9	326	35	10.7	SubName: Full=Zeta toxin family protein;
g3gvb5	148	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
g2x6g5	326	35	10.7	SubName: Full=Zeta toxin family protein;
g2x416	114	23	10.7	SubName: Full=Structural toxin protein RtxA;
g2uvg6	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uus7	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2us50	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2ups5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2uns6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2t3j2	109	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g2sgm0	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n8t1	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n5c1	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n3c7	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mz23	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2myl4	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2m2e5	154	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2ja11	112	23	10.7	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
g2gyn3	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2gj65	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2f9h5	98	23	10.7	SubName: Full=Putative toxin-plasmid maintenance system kill...
g2f797	109	23	10.7	SubName: Full=CP4-57 prophage; toxin of the YpjF-YfjZ toxin-...
g2a4c8	145	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
g0tpx1	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tpu5	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tm77	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tic0	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jts6	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jq45	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hzg4	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hmb9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0eg74	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0c5e7	159	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

g0bsa2	159	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0baf6	159	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0a728	85	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
g0a2k9	113	23	10.7	SubName: Full=CcdB-like toxin protein;
f9ziw7	171	23	10.7	SubName: Full=Zeta toxin family protein;
f9ypr7	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9v5s3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uzs5	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uxh7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uw84	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uus4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9qwl0	109	23	10.7	SubName: Full=CP4-57 prophage; toxin of the YpjF-YfjZ toxin-...
f9pg01	87	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
f9nse2	81	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
f9nc17	137	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f9l7s6	163	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9l048	127	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
f9kii6	308	33	10.7	SubName: Full=Toxin, beta-grasp domain protein;
f9k480	163	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f9i592	133	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f9hlq9	87	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f9eqp2	96	23	10.7	SubName: Full=Toxin-antitoxin system toxin protein Txe;
f9cpx3	100	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f9cme6	100	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f9asm4	153	23	10.7	SubName: Full=RTX toxin acyltransferase family protein;
f8ynt1	100	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f8ykh6	100	23	10.7	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
f8xti7	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8xjc4	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
f8xid7	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f8xi36	194	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f8x9v8	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f8x7j8	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
f8m749	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2g3	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m268	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m0v2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8lzi2	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8lkw3	84	23	10.7	SubName: Full=Toxin yoeB; EC=3.1.-.-;
f8h0p0	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8gk59	113	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f8e939	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8d0t1	131	23	10.7	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
f8bit5	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8b7a1	113	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f8b5w6	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8awq4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7ye00	89	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f7y2h6	149	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7xhy4	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x5j0	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wxk9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wvq2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrw3	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wrg4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wnt7	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wmz2	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wmn2	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f7wih9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wg33	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7vin1	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7vgj2	138	23	10.7	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
f7uhe3	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7sca1	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7rhf9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
f7qd69	110	23	10.7	SubName: Full=RelE-like Cytotoxic translational repressor of...
f7pgg2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7kzh4	118	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f6eqp4	111	23	10.7	SubName: Full=HicB family toxin-antitoxin system;
f6ech3	97	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f6e920	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6e6n8	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dyg7	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cnw9	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cnk1	108	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f6cmr5	155	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bmx6	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6ape3	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5zm63	143	23	10.7	SubName: Full=Putative Shiga-like toxin A subunit;
f5z2m8	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5wyr5	110	23	10.7	SubName: Full=Addiction module toxin;
f5wvw3	92	23	10.7	SubName: Full=Addiction module toxin;
f5wm06	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
f5wgd0	165	23	10.7	SubName: Full=Toxin, beta-grasp domain protein;
f5uic9	109	23	10.7	SubName: Full=MazE/toxin transcriptional modulator MazF prot...
f5ugg9	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5u6h7	210	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
f5u0c4	98	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f5tpr9	137	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f5t9w7	109	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f5t9f4	139	23	10.7	SubName: Full=Putative toxin-antitoxin system toxin componen...
f5s5r2	171	23	10.7	SubName: Full=GNAT family toxin-antitoxin system;
f5r6h9	150	23	10.7	SubName: Full=Toxin-antitoxin biofilm protein;
f5lpw4	147	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f5lg75	108	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component family...
f5lc94	208	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f5jvv1	202	23	10.7	SubName: Full=RTX toxin;
f5ikd0	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5igi9	181	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5iem5	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f5i6b5	114	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f5hzh6	114	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f5hyq5	178	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4xl28	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
f4xh34	93	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f4vsx5	128	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4val2	119	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
f4v6n2	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4udn5	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4u3m7	114	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4tz94	200	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4te33	93	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4t8f7	122	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
f4t8f6	244	26	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f4t893	91	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4t804	422	45	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...

f4t5a4	103	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
f4t442	162	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f4stu2	114	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4snk7	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4l598	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4l4d5	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4fhc1	156	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4c3b2	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4b5q1	125	23	10.7	SubName: Full=VapC-type toxin;
f4b5f2	130	23	10.7	SubName: Full=VapC-type toxin;
f3xt95	137	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f3xp45	148	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f3tfk9	163	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3qjg2	161	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
f3pu71	161	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f3ma76	168	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3ldy8	156	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3ink6	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3ht16	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3hqa0	150	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3bpf2	99	23	10.7	SubName: Full=Death on curing protein, Doc toxin;
f2vbl8	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2vbg2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v9t3	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v522	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v4k4	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2ux42	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2uv94	101	23	10.7	SubName: Full=Toxin-antitoxin system toxin component;
f2lrt1	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2krq4	149	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2kpt1	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2juj9	89	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
f2j716	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gpr9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gmm7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gm78	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gh64	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gec7	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2cd08	126	23	10.7	SubName: Full=Zeta toxin superfamily protein;
f2c276	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2c1p9	112	23	10.7	SubName: Full=RelE family toxin-antitoxin system;
f2b8i4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2abj8	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0z2w4	100	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f0z0t5	120	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f0ytz3	132	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f0vsk6	92	23	10.7	SubName: Full=Putative addiction module toxin, RelE/StbE fam...
f0pil2	153	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f0nnc2	136	23	10.7	SubName: Full=VapC-type toxin;
f0ngm7	137	23	10.7	SubName: Full=VapC-type toxin;
f0nbk4	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0lmn7	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0l678	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0hrr9	125	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component family...
f0e6z4	117	23	10.7	SubName: Full=Toxin ChpB;
f0dpl0	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0cwz4	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cvg7	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;

f0cj53	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
f0cgy7	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
f0ceu2	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
f0b537	124	23	10.7	SubName: Full=Putative plasmid toxin protein PemK;
f0atk4	124	23	10.7	SubName: Full=Putative plasmid toxin protein PemK;
e9zrs6	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zr75	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zpf1	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zk32	95	23	10.7	SubName: Full=Toxin protein;
e9zg30	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9xud2	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e9v281	186	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9uv60	84	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9usn1	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9up65	159	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9u760	200	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e9tv19	139	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9tlf4	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
e9td41	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9tc53	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e9fqh9	138	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9fq79	110	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9fhz7	152	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9dku6	84	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
e9d1x5	363	39	10.7	SubName: Full=Toxin biosynthesis protein;
e8zxx7	147	23	10.7	SubName: Full=Putative shiga-like toxin A subunit;
e8x428	92	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
e8wkl7	129	23	10.7	SubName: Full=Toxin endonuclease, YhaV;
e8wg11	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8svq6	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8s7g1	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8rvv3	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e8pm21	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8li35	147	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e8lh31	136	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e8lcf7	134	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e8kgy4	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8gci2	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8etv8	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ebh9	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8dit7	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8da21	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8cmq5	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8c874	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8bn41	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ba16	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8b4e2	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8ajg6	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8af79	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e8a0b9	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7zlj3	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7zd25	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7yx06	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7yl40	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7y927	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7xzf5	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7xn52	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7x9t1	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;

e7wlp6	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7wb86	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7vlx8	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
e7s9t4	84	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family; SubNa...
e7rzi5	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7pu55	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7pkf4	448	48	10.7	SubName: Full=Insecticidal toxin protein, putative;
e7pe57	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7ncc9	118	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e7nbh8	109	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
e7n5f9	103	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e7n3n7	147	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
e7n0x5	133	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e7gu34	115	23	10.7	SubName: Full=Xre family Toxin-antitoxin system;
e7gl92	102	23	10.7	SubName: Full=RelE family Toxin-antitoxin system;
e7g999	133	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
e7g268	189	23	10.7	SubName: Full=Cytolethal distending toxin A/C family protein...
e7b9x0	317	34	10.7	SubName: Full=Cytolethal distending toxin subunit B;
e7b937	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e7aha8	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6xfz9	109	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e6shq7	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6sbq4	85	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
e6rt80	189	23	10.7	SubName: Full=Cytolethal distending toxin subunit C;
e6qtx1	108	23	10.7	SubName: Full=Putative Plasmid maintenance toxin/Cell growth...
e6qet8	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e6mwq3	155	23	10.7	SubName: Full=Hemolysin-activating lysine-acyltransferase hl...
e6l7p1	244	26	10.7	SubName: Full=Cytolethal distending toxin A;
e6kt27	148	23	10.7	SubName: Full=HipA family toxin-antitoxin system;
e6j305	98	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6izf5	113	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
e6irf2	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6iq38	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ip08	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6ig52	157	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ig51	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6i2d1	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6hyx8	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6hwl0	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6hk88	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6h8s1	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6h6s9	154	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6h1x5	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6gyx6	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6gxz4	154	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e6ggm5	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6gda6	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6g607	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6fyb5	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6fkl4	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6fee0	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6f6h5	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6ex87	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e6brf9	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e6bk39	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e5zr93	98	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e5uw81	161	23	10.7	SubName: Full=Toxin-antitoxin system;
e5u6t7	139	23	10.7	SubName: Full=HicB family Toxin-antitoxin system;

e5ray0	319	34	10.7	SubName: Full=Alpha-hemolysin (Alpha-toxin) (Alpha-HL);
e5r7q4	165	23	10.7	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e5av60	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e5al44	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4pef0	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e4ng96	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4nff2	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4mu73	97	23	10.7	SubName: Full=Txe/YoeB family addiction module toxin;
e4ln28	127	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4jla8	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4jdb1	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4jbd5	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4j4s7	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4j0e7	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4ixs7	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4ip65	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4ike6	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4iib5	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4i8s9	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e4i7g0	112	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4hpj8	116	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e4bj07	116	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e4agz7	116	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e3uu66	124	23	10.7	SubName: Full=Cholera toxin B subunit;
e3uu45	124	23	10.7	SubName: Full=Cholera toxin B subunit;
e3rbw5	83	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e3rbu6	131	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3rb36	140	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e3r969	169	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e3r8w6	150	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3r854	135	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e3r6h2	141	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e3r4y6	199	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e3gr62	110	23	10.7	SubName: Full=Toxin-antitoxin system;
e3djw5	99	23	10.7	SubName: Full=Addiction module toxin;
e3dic5	101	23	10.7	SubName: Full=CcdB-like toxin protein;
e3daj4	132	23	10.7	SubName: Full=HicB family toxin-antitoxin system;
e3caq4	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
e2zmj8	95	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e2z2g0	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2z1p2	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2ywq1	160	23	10.7	SubName: Full=Phage repressor; SubName: Full=Toxin-antitoxin...
e2ysr9	128	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2yns3	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2yjb7	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2ybk9	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2yac7	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2y4q7	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2wmh3	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wjy3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wee6	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wdh9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wcw8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2wc48	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2waf3	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w7v8	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w2g6	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w0z7	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

e2vz93	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vwp0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vr64	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vqa2	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vpn9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vmn2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vkc8	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vf16	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vdl5	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vb23	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5k6	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v4p5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v434	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v2c8	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uxv8	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uuc8	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2utg8	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2usq4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ur55	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2unj7	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ui83	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ugz6	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ug48	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uf47	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ud06	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ubz4	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u6c3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u5r4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u385	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u0l7	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tva7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tuf0	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ttp3	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2trq0	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tp40	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tim0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tha7	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2th43	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tgk1	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tee0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tbn3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t7y3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t7c4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2sz17	270	29	10.7	SubName: Full=Toxin-antitoxin system;
e2su49	172	23	10.7	SubName: Full=Toxin-antitoxin system;
e2spf2	183	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2pnp8	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2pig6	125	23	10.7	SubName: Full=Toxin-antitoxin system protein;
e2pi98	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e2c4i8	139	23	10.7	SubName: Full=Hansenula MRAKII killer toxin-resistant protei...
e1ye56	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1vjj0	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1rjg7	110	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e1rbq2	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1qrz7	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1pte8	92	23	10.7	SubName: Full=Toxin, RelE family;
e1nbq0	123	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e1mh28	139	23	10.7	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...

e1mft1	95	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1mfp5	186	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1meh5	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1mea3	309	33	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
e1me43	58	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component domain...
e1ldj2	81	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e1l8b9	89	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e1l459	81	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e1l3e5	95	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e1kxd3	134	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1jp79	104	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1jbh4	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e1j833	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1ixz4	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e1iwd7	115	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e1iux6	326	35	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e1ipg4	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
e1ij99	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1ia03	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1i994	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
e1i7b9	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hwq7	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e1hkb1	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hgq0	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hg21	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hee6	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1hbu8	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h6e8	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1gxh4	113	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1gvv2	140	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
e1esl4	157	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1en33	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0wu87	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0ws43	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0tmz2	126	23	10.7	SubName: Full=Zeta toxin superfamily;
e0qpj6	139	23	10.7	SubName: Full=PIN family toxin-antitoxin system;
e0nzb3	139	23	10.7	SubName: Full=HicB family toxin-antitoxin system;
e0nwe5	178	23	10.7	SubName: Full=HicB family toxin-antitoxin system;
e0nav1	79	23	10.7	SubName: Full=Toxin secretion ATP-binding protein; EC=3.6.3....
e0mlt7	110	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e0hc57	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0h519	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0h0f8	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0gza1	154	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0gvm4	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0gr93	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0glg0	153	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e0geq4	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0g8r2	117	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0g502	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0g172	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0egk4	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0dx20	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0dk94	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9y7u0	138	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9y4b1	65	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d9ww10	253	27	10.7	SubName: Full=ArsR family toxin-antitoxin system, antitoxin ...
d9wta2	87	23	10.7	SubName: Full=PHD family toxin-antitoxin system, antitoxin c...

d9wi87	107	23	10.7	SubName: Full=ArsR family toxin-antitoxin system, antitoxin ...
d9wdz5	80	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9pql5	134	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9p6p8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8unj7	104	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8l2j9	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8k9b3	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8fvh5	113	23	10.7	SubName: Full=Putative Transcriptional modulator of MazE/tox...
d8fg54	84	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
d8f787	106	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8f3e4	162	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8f2h4	129	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8ey60	169	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8eww0	103	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d8ev56	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d8es42	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8eq73	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d8emi1	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
d8ejy2	194	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8e9w7	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
d8e5a2	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8bc65	139	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8adl6	128	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8abf4	95	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8a660	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d7zuu9	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d7zeh9	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7zc72	128	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7yid7	119	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d7yck7	99	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
d7ybx2	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7y7r6	90	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
d7y067	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7xpg6	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7xhi5	92	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7x635	154	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7x0k9	128	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7j4c2	104	23	10.7	SubName: Full=Toxin-antitoxin system toxin component;
d7j4c1	140	23	10.7	SubName: Full=Toxin-antitoxin system antitoxin component;
d7j1w1	150	23	10.7	SubName: Full=HicB family toxin-antitoxin system;
d7j1f8	97	23	10.7	SubName: Full=Toxin-antitoxin system toxin component;
d7icm9	114	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7hxc0	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7hjp2	153	23	10.7	SubName: Full=RTX toxin activating protein;
d7hg05	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
d7h8t4	153	23	10.7	SubName: Full=RTX toxin activating protein;
d7exu8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7ew49	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7etk2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7en55	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7em81	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cuy9	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6slb0	104	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d6r7l2	124	23	10.7	SubName: Full=Cholera toxin B; SubName: Full=Cholera toxin B...
d6l3i1	188	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d6kpv1	91	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6kjb4	94	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d6k855	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d6k4x0	90	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component;
d6k022	70	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component;
d6jzh5	280	30	10.7	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6ii97	114	23	10.7	SubName: Full=Programmed cell death toxin MazF;
d6ii11	104	23	10.7	SubName: Full=Toxin;
d6hk12	134	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6fyn5	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fwv8	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fvw4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fs77	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fm90	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6flu8	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fj57	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fa28	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f1i9	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6cvx6	83	23	10.7	SubName: Full=Protein pemK (Kid toxin protein);
d6cmu0	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zls1	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zj06	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zcw7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zby9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5za84	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z9l8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z8m2	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z619	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0f8	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yzd1	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ywz0	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yub0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ynn0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ymw5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ym96	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yk08	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yhx4	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ycs0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ybc9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yaq8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y8y5	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y584	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y0q2	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xz74	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xwc9	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xqk5	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xpg6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xn96	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5x6r8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5wti8	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5tev5	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d5qkr5	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5pel6	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5p1n7	101	23	10.7	SubName: Full=MazF family toxin-antitoxin system;
d5nwd4	111	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d5mkn2	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mi74	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5dn62	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
d5c0b4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5avi6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4z8v9	151	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d4x496	214	23	10.7	SubName: Full=Toxin-antitoxin system;
d4wzw1	104	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4wzw0	140	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
d4wsd8	421	45	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4w3b3	244	26	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4vvp4	224	24	10.7	SubName: Full=Zeta toxin;
d4vr89	140	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
d4vr88	104	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4vep4	421	45	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4vbk8	422	45	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d4v9s6	161	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component fa...
d4v3s5	134	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d4uyt8	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4u282	87	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
d4tza7	76	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4s2f6	206	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4s2e0	140	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4s100	110	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4j534	177	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
d4h427	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4fe79	141	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4evh6	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4eu20	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4ekf5	160	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4ej44	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4e9w7	80	23	10.7	SubName: Full=RelE-RelB toxin-antitoxin system and transcrip...
d4d6q2	410	44	10.7	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
d4cxa5	132	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4cba2	170	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4c556	203	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4bv22	102	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4bsa1	88	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4bmi4	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4bkw9	105	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4bhz7	200	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4bhm8	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3t296	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3swg0	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3sak9	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3rs55	107	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d3r000	194	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component family...
d3qz53	170	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3ppr8	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pfm6	244	26	10.7	SubName: Full=Kunitz/BPTI-like toxin;
d3lmx9	187	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d3ll65	212	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3l0k8	82	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d3fl54	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
d3f1g8	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3dbb1	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3asq9	115	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
d3arp0	74	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3abe1	131	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d2tv56	101	23	10.7	SubName: Full=Post-segregation toxin CcdB;
d2tv52	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2s6h1	124	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2s0j3	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2qyt8	107	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...

d2q1g2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2pvw3	146	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2pcp9	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2ml46	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2bz02	178	23	10.7	SubName: Full=RTX toxin-activating protein C;
d2ba29	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2b3a7	134	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d1yp85	94	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1ynv5	81	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
d1ylr7	83	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
d1yl98	261	28	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d1yl38	135	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d1yj54	158	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1pne7	156	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
d1pdr2	129	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d1p181	108	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1nzb1	104	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d1nt42	90	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d1gid0	124	23	10.7	SubName: Full=Cholera toxin B subunit; SubName: Full=CtxB;
d1cxh5	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1ca29	150	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bzq3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bsu3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0zl38	143	23	10.7	SubName: Full=Putative Shiga-like toxin A subunit;
d0yv34	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0ytw2	95	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d0ytp7	186	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0ysj1	160	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d0ysf3	185	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d0wh43	144	23	10.7	SubName: Full=Toxin-antitoxin system protein;
d0mjs3	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0la04	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0gn48	133	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d0fvi4	99	23	10.7	SubName: Full=Addiction module toxin;
c9z2c9	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9y863	154	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9x4k1	83	23	10.7	RecName: Full=Toxin TdNa3; AltName: Full=PT-Arthr*-beta* NaT...
c9rxl7	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9rb04	151	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9r0y4	109	23	10.7	SubName: Full=CP4-57 prophage toxin of the YpjF-YfjZ toxin-a...
c9qtk3	104	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c9mxb8	224	24	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c9m6s6	162	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9m4a5	113	23	10.7	SubName: Full=RelE family toxin-antitoxin system;
c9lx43	133	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c9lvu8	99	23	10.7	SubName: Full=Helix-turn-helix domain protein; SubName: Full...
c9lqq8	262	28	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9lmw5	347	37	10.7	SubName: Full=Zeta toxin family protein;
c9lc72	128	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9l3r5	185	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9kvy6	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9kj02	171	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c9adx0	224	24	10.7	SubName: Full=Zeta toxin;
c8vzp5	104	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
c8uqx1	98	23	10.7	SubName: Full=Putative toxin-plasmid maintenance system kill...
c8tw37	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c8sz95	107	23	10.7	SubName: Full=Xre family toxin-antitoxin system;
c8pa46	105	23	10.7	SubName: Full=MazF family toxin-antitoxin system;

c8p779	111	23	10.7	SubName: Full=MazF family toxin-antitoxin system;
c8p579	121	23	10.7	SubName: Full=Xre family toxin-antitoxin system;
c8n9i3	143	23	10.7	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
c7uyt4	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c7ubt5	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c7rq69	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7qnu9	117	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c7p7e6	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7m808	97	23	10.7	SubName: Full=Addiction module toxin, Txe/YoeB family;
c7l9n2	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7l0y6	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7ksf2	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7kiq6	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7ka08	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7k1b0	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7jsl3	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7jiw5	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7h2n8	170	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7cn59	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6yc09	153	23	10.7	SubName: Full=RTX toxin activating protein;
c6rab1	225	24	10.7	SubName: Full=Diphtheria toxin repressor;
c6lkh4	188	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
c6l1n1	87	23	10.7	SubName: Full=Shiga toxin 2 variant f B-subunit;
c6jup3	82	23	10.7	RecName: Full=Three-finger toxin 3FTx-3; Short=3FTx; Flags: ...
c6jj30	146	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c6dtv5	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6drt5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dqs8	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dmy7	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dlc4	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6aga1	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c6acb0	154	23	10.7	SubName: Full=RTX toxin-activating protein;
c6a5p3	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
c5g5e3	183	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c5c229	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5awm7	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5a201	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4zyq9	109	23	10.7	SubName: Full=CP4-57 prophage; toxin of the YpjF-YfjZ toxin-...
c4zj92	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ziy6	158	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4vre5	83	23	10.7	SubName: Full=Toxin-antitoxin addiction module regulator Maz...
c4khx5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4kd64	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ka60	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4k632	113	23	10.7	SubName: Full=Addiction module, toxin ChpB;
c4k384	147	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ifg3	141	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c3n6g0	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3n4m1	162	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3mx76	162	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3mwp0	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3lme6	153	23	10.7	SubName: Full=RTX toxin activating protein;
c3kns1	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c2hbu2	224	24	10.7	SubName: Full=Zeta toxin family protein;
c2gpw3	137	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c2ewg9	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
c1ic48	83	23	10.7	RecName: Full=Three finger toxin Wa-IV; Flags: Precursor;
c1dra7	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

c1akr2	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1ajv3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1aj89	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1ahj7	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1aew0	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0xhd1	328	35	10.7	SubName: Full=VIP2 family actin-ADP-ribosylating toxin;
c0vn66	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0qsi5	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9nxb8	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9mnf9	176	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b9lvl4	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9lnt3	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9lax4	155	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9js56	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jrm2	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jgh2	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jfi9	185	23	10.7	SubName: Full=RTX toxin hemolysin-type calcium-binding prote...
b9jdb4	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9j8c5	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9d5n6	143	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9cws8	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8zpj8	253	27	10.7	SubName: Full=Putative zeta-toxin;
b8xgz5	86	23	10.7	SubName: Full=Putative alpha toxin Tx763;
b8xgy8	86	23	10.7	SubName: Full=Putative alpha toxin Tx452;
b8xgy7	85	23	10.7	SubName: Full=Putative alpha toxin Tx405;
b8ndv4	174	23	10.7	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
b8huz8	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8gdj7	108	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b8fqr9	149	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7th00	150	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgz7	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgz0	150	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgy0	150	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgw7	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7r0g4	157	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7mqj9	110	23	10.7	SubName: Full=Putative RelE/ParE family protein, cytotoxic t...
b7me07	110	23	10.7	SubName: Full=Putative RelE/ParE family protein, cytotoxic t...
b7lit6	93	23	10.7	SubName: Full=Stability protein StbE (Toxin);
b7k2w4	117	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b7gj05	128	23	10.7	SubName: Full=Toxin-antitoxin addiction module toxin compone...
b7a8h8	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6yvl1	113	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6scy3	102	23	10.7	SubName: Full=Putative Shiga-like toxin beta subunit;
b6j9w5	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6j7v1	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6izi6	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6ivg6	89	23	10.7	SubName: Full=Toxin yoeB;
b6icq6	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b6ga64	133	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
b6dd62	104	23	10.7	RecName: Full=U20-lycotoxin-Ls1c; AltName: Full=Toxin-like s...
b6dd61	107	23	10.7	RecName: Full=U20-lycotoxin-Ls1b; AltName: Full=Toxin-like s...
b6dd60	104	23	10.7	RecName: Full=U20-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dd54	81	23	10.7	RecName: Full=U17-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dd27	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dd26	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1f; AltName: Full=Toxin-like s...
b6dd23	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1d; AltName: Full=Toxin-like s...
b6dd21	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dd20	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1c; AltName: Full=Toxin-like s...

b6dd19	120	23	10.7	RecName: Full=U13-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dcy1	104	23	10.7	RecName: Full=U20-lycotoxin-Ls1d; AltName: Full=Toxin-like s...
b6dcw4	78	23	10.7	RecName: Full=U7-lycotoxin-Ls1e; AltName: Full=Toxin-like st...
b6dcw3	78	23	10.7	RecName: Full=U7-lycotoxin-Ls1d; AltName: Full=Toxin-like st...
b6c6b5	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6as51	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5vxd8	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5qhw3	189	23	10.7	SubName: Full=Cytolethal distending toxin;
b5l5m7	84	23	10.7	RecName: Full=Kunitz/BPTI-like toxin; Flags: Precursor;
b5iqk4	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5gqc3	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5fcd4	163	23	10.7	SubName: Full=General secretion pathway protein M (Cholera t...
b5bad4	137	23	10.7	SubName: Full=Putative pertussis-like toxin subunit;
b5aan6	124	23	10.7	SubName: Full=Cholera toxin;
b5aan5	124	23	10.7	SubName: Full=Cholera toxin;
b4w8e1	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vwj9	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vp04	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vl87	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4vi94	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4v7k1	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4scg6	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4sat1	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4ezb9	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4dbq3	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4db77	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3r2h0	106	23	10.7	SubName: Full=PemK-like protein toxin of a toxin-antitoxin s...
b3qkl4	134	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3pzf6	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3pts4	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3eqq9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3ene7	94	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b3ejx8	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3dvs5	117	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE;
b3cgi2	117	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
b2zba2	81	23	10.7	SubName: Full=HW17g1 toxin-like;
b2j2i6	96	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b2iy00	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2il60	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2fs66	337	36	10.7	SubName: Full=Putative phage-related protein, similar to zon...
b2ec14	127	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b2dlt8	300	32	10.7	SubName: Full=Exfoliative toxin A;
b1z9l3	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1z1x1	93	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
b1yy30	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1yqb5	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1xze6	132	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1xbw4	109	23	10.7	SubName: Full=CP4-57 prophage; toxin of the YpjF-YfjZ toxin-...
b1vyv0	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1vcl4	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b1ter8	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1qbf4	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
b1m8j8	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1lrw4	138	23	10.7	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b1l4p9	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1k205	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1i6g1	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1hq61	337	36	10.7	SubName: Full=Hypothetical Mtx2/3 toxin-like protein;

b1hmi9	326	35	10.7	SubName: Full=35.8-kilodalton mosquitocidal toxin protein;
b1fpd2	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1fkw4	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1b5i9	84	23	10.7	RecName: Full=Sodium channel toxin SHTX-4; AltName: Full=Sod...
b1a4i6	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0y0n1	346	37	10.7	SubName: Full=Toxin biosynthesis protein (GliH), putative;
b0xzv5	363	39	10.7	SubName: Full=Toxin biosynthesis proten (Fum3), putative;
b0tci9	137	23	10.7	SubName: Full=Holin, toxin secretion/phage lysis family prot...
b0t6t1	145	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0t1j1	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0phc0	197	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b0p3e2	146	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a9zie9	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9wfx4	155	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9vwu2	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9n8h6	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9lk42	93	23	10.7	SubName: Full=Cytotoxic translational repressor of toxin-ant...
a9kg92	125	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9bwr6	137	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9bfj4	139	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
a8zvg0	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8zpc0	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8vwc8	89	23	10.7	SubName: Full=Shiga-toxin 2;
a8ssw6	166	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
a8sh17	224	24	10.7	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
a8sdi5	106	23	10.7	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a8lzw5	153	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8guq2	117	23	10.7	SubName: Full=Toxin of toxin-antitoxin (TA) system VapC;
a7x3s2	111	23	10.7	RecName: Full=Toxin 3FTx-Tri3; Flags: Precursor;
a7i6z2	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7c5d8	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bv91	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bv38	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bus2	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7ber6	88	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
a7a518	137	23	10.7	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a6xv15	153	23	10.7	SubName: Full=RTX toxin activating protein;
a6xui3	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
a6x3s5	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6un09	98	23	10.7	SubName: Full=Addiction module toxin, RelE/StbE family;
a6tv80	138	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
a6tim9	138	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6aea9	153	23	10.7	SubName: Full=RTX toxin activating protein;
a6aad3	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
a6a634	153	23	10.7	SubName: Full=RTX toxin activating protein;
a6a2b5	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
a5x2x1	152	23	10.7	RecName: Full=Fused toxin protein; Flags: Precursor;
a5wsv4	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wqa4	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wju7	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wiy5	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wib9	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u858	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5u5j1	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tz03	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tyd6	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5kju1	136	23	10.7	SubName: Full=Toxin secretion/phage lysis holin;
a5khz6	189	23	10.7	SubName: Full=Cytolethal distending toxin;

a5get9	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5ftf1	136	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5f391	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a5ekd4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4yf78	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4v956	98	23	10.7	SubName: Full=Putative toxin-plasmid maintenance system kill...
a4knu3	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kn94	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4kls0	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4ker4	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4f2c3	140	23	10.7	SubName: Full=Cytolethal distending toxin C;
a4f2a3	148	23	10.7	SubName: Full=Cytolethal distending toxin A;
a4f281	189	23	10.7	SubName: Full=Cytolethal distending toxin C;
a4d2p2	148	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1 (Rh...
a4d2p0	211	23	10.7	SubName: Full=Ras-related C3 botulinum toxin substrate 1 (Rh...
a4bpb2	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4bm91	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4bm87	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4a597	118	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3zks2	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
a3z9l1	129	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z4j8	144	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3yq20	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
a3ykt8	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
a3wtc9	127	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3w3p2	131	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3m0e8	118	23	10.7	SubName: Full=SMK killer toxin resistance protein;
a3kaq2	128	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3ji07	126	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3j7n1	105	23	10.7	SubName: Full=CcdB-like toxin protein;
a3i2v3	194	23	10.7	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
a3hrt5	186	23	10.7	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
a3h016	153	23	10.7	SubName: Full=Cytolysin-activating lysine-acyltransferase Rt...
a3gme4	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3glz3	153	23	10.7	SubName: Full=RTX toxin activating protein;
a3gjc9	117	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a2vyv0	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vph1	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vnj1	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vn00	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfr0	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2sme7	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2ptr0	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
a2psd2	153	23	10.7	SubName: Full=RTX toxin activating protein;
a2pb42	117	23	10.7	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a2bkl0	148	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1x2j7	131	23	10.7	SubName: Full=Putative toxin II;
a1vxg2	189	23	10.7	SubName: Full=Cytolethal distending toxin, subunit C;
a1tt59	336	36	10.7	SubName: Full=Zonular occludens toxin;
a1t5t4	140	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ssr9	118	23	10.7	SubName: Full=Structural toxin protein RtxA;
a1s089	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kp74	130	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kli9	141	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kg59	135	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kf98	142	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1ken4	133	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1jt39	139	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a1f7f7	153	23	10.7	SubName: Full=RTX toxin activating protein;
a1f3g4	166	23	10.7	SubName: Full=Cholera toxin secretion protein EpsM;
a1epl4	153	23	10.7	SubName: Full=RTX toxin activating protein;
a1eic6	136	23	10.7	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a0azk2	121	23	10.7	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
r2p9s0	263	28	10.6	SubName: Full=Zeta-toxin;
r1a2q7	644	68	10.6	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0zf97	644	68	10.6	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0yiy2	644	68	10.6	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0ygq7	644	68	10.6	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xhy5	644	68	10.6	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0dcq9	303	32	10.6	SubName: Full=Putative insecticidal toxin complex;
q9f5r3	349	37	10.6	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q7w2u6	227	24	10.6	SubName: Full=Pertussis toxin subunit 3;
q5u2q4	322	34	10.6	RecName: Full=Mono [ADP-ribose] polymerase PARP16; EC=2.4.2....
q4zfu0	265	28	10.6	SubName: Full=Beta2 toxin;
q4zft9	265	28	10.6	SubName: Full=Beta2 toxin;
q2sg28	312	33	10.6	SubName: Full=Cytolethal distending toxin B-like protein;
q2jag7	350	37	10.6	SubName: Full=Zeta toxin;
o32322	263	28	10.6	RecName: Full=Type-2Bb cytolytic delta-endotoxin; AltName: F...
n6yw99	284	30	10.6	SubName: Full=Zonular occludens toxin;
n4vuy4	424	45	10.6	SubName: Full=Zona occludens toxin;
m8luc7	417	44	10.6	SubName: Full=Zonular occludens toxin family protein;
m7qux1	461	49	10.6	SubName: Full=Zona occludens toxin;
m3d5w0	423	45	10.6	SubName: Full=Toxin biosynthesis protein;
m1w720	425	45	10.6	SubName: Full=Related to host-specific AK-toxin Akt2;
m1vzk1	425	45	10.6	SubName: Full=Related to host-specific AK-toxin Akt2;
l8pc28	293	31	10.6	SubName: Full=Putative Xre family toxin-antitoxin system, an...
l7fc70	302	32	10.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7ex00	284	30	10.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l7ewu4	301	32	10.6	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
l1l034	282	30	10.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kiw5	310	33	10.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k5c2s8	254	27	10.6	SubName: Full=Zeta toxin;
k4qp91	226	24	10.6	SubName: Full=Pertussis toxin subunit 2;
k2vv37	414	44	10.6	SubName: Full=RTX toxin RtxA domain protein;
k0mpi4	227	24	10.6	SubName: Full=Pertussis toxin subunit 3;
j7m7h6	301	32	10.6	SubName: Full=Exfoliative toxin;
i7kfw0	379	40	10.6	SubName: Full=Predicted membrane protein, putative toxin reg...
h3t7d2	424	45	10.6	SubName: Full=Zona occludens toxin;
h3t148	424	45	10.6	SubName: Full=Zona occludens toxin;
g9zxk5	331	35	10.6	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g9asi0	369	39	10.6	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
f9zkh6	321	34	10.6	SubName: Full=Zonular occludens toxin;
f2tme2	357	38	10.6	SubName: Full=Killer toxin sensitivity protein;
f1w3e5	426	45	10.6	SubName: Full=RTX toxins and Ca2+-binding proteins-like prot...
f0n891	367	39	10.6	SubName: Full=Zonula occludens toxin family protein;
f0ljr2	358	38	10.6	SubName: Full=Diptheria toxin resistance protein;
f0hzd9	360	38	10.6	SubName: Full=Toxin secretion/phage lysis holin subfamily;
e3dhb6	424	45	10.6	SubName: Full=Botulinum toxin-like protein;
e0mth4	407	43	10.6	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d9xt06	292	31	10.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9xsn4	284	30	10.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9wnc8	255	27	10.6	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6t5n8	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d4ue98	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d4u919	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d3pg22	254	27	10.6	SubName: Full=Kunitz/BPTI-like toxin;

d2una2	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d2fn03	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d1w5n2	245	26	10.6	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
d1qjx4	311	33	10.6	SubName: Full=Leukocidin/hemolysin toxin family protein;
d0cux1	480	51	10.6	SubName: Full=Putative RTX toxins and related Ca2+-binding p...
c9m6w2	264	28	10.6	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c5gq58	357	38	10.6	SubName: Full=Killer toxin sensitivity protein;
c4i0k8	322	34	10.6	SubName: Full=Translocated cysteine protease/Rho GTPase toxi...
c4hb61	322	34	10.6	SubName: Full=Translocated cysteine protease/Rho GTPase toxi...
b8lbe3	385	41	10.6	SubName: Full=Zonula occludens toxin family protein;
b2u9y2	376	40	10.6	SubName: Full=Zonular occludens toxin;
a6m3u9	322	34	10.6	SubName: Full=Translocated cysteine protease/Rho GTPase toxi...
a4sli3	461	49	10.6	SubName: Full=RTX toxin-like protein;
a0z973	405	43	10.6	SubName: Full=Addiction module toxin, Txe/YoeB;
r4blj3	257	27	10.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r3zmg5	287	30	10.5	SubName: Full=Zeta-toxin;
r3yzs5	257	27	10.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
r1xvd1	287	30	10.5	SubName: Full=Zeta-toxin;
r1xp79	287	30	10.5	SubName: Full=Zeta-toxin;
r1x733	287	30	10.5	SubName: Full=Zeta-toxin;
r1x321	287	30	10.5	SubName: Full=Zeta-toxin;
r1wqg3	287	30	10.5	SubName: Full=Zeta-toxin;
r1wnk8	287	30	10.5	SubName: Full=Zeta-toxin;
r1uff1	287	30	10.5	SubName: Full=Zeta-toxin;
r0wx29	523	55	10.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0we26	523	55	10.5	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9fbi2	315	33	10.5	RecName: Full=Shiga toxin subunit A; EC=3.2.2.22; Flags: Pre...
q93q17	475	50	10.5	RecName: Full=ADP-ribosyltransferase toxin AexT; EC=2.4.2.-;...
q93nb5	354	37	10.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q8x696	315	33	10.5	SubName: Full=Shiga toxin 1 A subunit; SubName: Full=Shiga t...
q7wzi8	313	33	10.5	SubName: Full=Shiga toxin 1 variant A subunit;
q7wzi7	315	33	10.5	SubName: Full=Shiga toxin 1 variant A subunit;
q7n8b1	408	43	10.5	RecName: Full=Photox toxin; EC=2.4.2.31; AltName: Full=Mono(...
q7ayi8	315	33	10.5	SubName: Full=Shiga toxin 1 Stx1, A-subunit;
q7ak38	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
q779k4	315	33	10.5	RecName: Full=Shiga toxin subunit A; EC=3.2.2.22; Flags: Pre...
q777w4	315	33	10.5	SubName: Full=Shiga toxin 1, subunit A;
q776e8	315	33	10.5	SubName: Full=Shiga toxin1 subunit A;
q6h9w4	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
q32gm1	315	33	10.5	RecName: Full=Shiga toxin subunit A; EC=3.2.2.22; Flags: Pre...
q3061l2	362	38	10.5	SubName: Full=40kDa insecticidal toxin;
q2wcv4	352	37	10.5	SubName: Full=Putative insecticidal toxin complex protein;
q1w694	305	32	10.5	RecName: Full=Sphingomyelin phosphodiesterase D LiSicTox-bet...
q1ely1	315	33	10.5	SubName: Full=Shiga toxin I subunit A; Flags: Precursor;
q1elx9	315	33	10.5	SubName: Full=Shiga toxin I subunit A; Flags: Precursor;
p15795	294	31	10.5	RecName: Full=Cholera toxin transcriptional activator;
p10149	315	33	10.5	RecName: Full=Shiga-like toxin 1 subunit A; Short=SLT-1 A su...
p0a4m2	287	30	10.5	RecName: Full=Toxin zeta; AltName: Full=UDP-N-acetylglucosam...
p0a4m1	287	30	10.5	RecName: Full=Toxin zeta; AltName: Full=UDP-N-acetylglucosam...
n6ui65	238	25	10.5	SubName: Full=CtxA-like, cholera toxin A subunit;
n4uyg3	504	53	10.5	SubName: Full=Putative HC-toxin efflux carrier TOXA;
n2hp58	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
n0ggq8	371	39	10.5	SubName: Full=Toxin coregulated pilus biosynthesis protein E...
m9gey2	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
m8yfp4	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
m8q475	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
m8nib6	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
m8mr62	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;

m8m0r8	418	44	10.5	SubName: Full=Zonular occludens toxin family protein;
m7ukh3	408	43	10.5	SubName: Full=Putative toxin biosynthesis protein;
m7nu57	401	42	10.5	SubName: Full=Cholera toxin secretion protein epsF;
m5hx00	315	33	10.5	SubName: Full=Shiga toxin I subunit A;
m5ht10	315	33	10.5	SubName: Full=Shiga toxin I subunit A;
m5hbk1	315	33	10.5	SubName: Full=Shiga toxin I subunit A;
m4v3h9	455	48	10.5	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
m3ea47	421	44	10.5	SubName: Full=Zeta toxin protein;
l9iu35	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l9i441	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l9gzg9	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l9fub5	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l9c8c0	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l9bsk4	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l8yy29	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l2rrl5	287	30	10.5	SubName: Full=Zeta-toxin;
l2rqv9	287	30	10.5	SubName: Full=Zeta-toxin;
l2mli8	287	30	10.5	SubName: Full=Zeta-toxin;
l2k9w7	258	27	10.5	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2jnt5	287	30	10.5	SubName: Full=Zeta-toxin;
l2edl4	373	39	10.5	SubName: Full=Zonular occludens toxin;
l1rlz6	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1ri07	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1qkk6	256	27	10.5	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1fyi6	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1eyz9	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1era8	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1d5k4	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1cyx2	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1bu56	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1au19	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1amx8	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l1ad58	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0za96	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0z0z6	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0yt91	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0xul6	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0xt96	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
l0xi92	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
k5h4b1	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
k5fxm0	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
k4xjd7	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4x433	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4x157	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4w0t0	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4vxl2	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4uyv4	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k4uxp9	315	33	10.5	SubName: Full=Shiga toxin I subunit A;
k4uqw0	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
k3umm3	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3ttz6	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3t4g9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3qrw9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3h152	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3giq1	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3ffk1	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3f5h7	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3dqq7	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;

k3d7t9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3b7a9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3axb4	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k3a764	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k2z6d9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k2ypg6	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
k2yei3	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
j9j599	304	32	10.5	SubName: Full=Multidrug and toxin extrusion protein 1;
j7ta11	392	41	10.5	SubName: Full=Putative toxin-antitoxin system toxin componen...
j7i4w4	315	33	10.5	SubName: Full=Shiga toxin 1A subunit;
j6bt54	287	30	10.5	SubName: Full=Zeta toxin;
j1dgy0	275	29	10.5	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j0na04	248	26	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
i9wqy7	455	48	10.5	SubName: Full=Rtx toxin hemolysin-type calcium-binding prote...
i5v6p5	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5ueb1	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5sy39	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5qiy5	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5p687	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5l9p6	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5j337	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5i2n7	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5h0k1	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5fac7	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5dtp1	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5drt6	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i5dpt9	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i4rzv5	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4rw57	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4qxi9	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4qt46	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4qfa3	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4ps51	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4np13	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i4njp7	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
i3add7	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2xz62	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2v9e0	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2uri7	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2u8r2	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2trs0	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2s7a2	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2rl67	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
i2j4e2	256	27	10.5	SubName: Full=Zeta toxin;
i2fc56	275	29	10.5	SubName: Full=Cytolethal distending toxin subunit A;
i1zxm5	315	33	10.5	SubName: Full=Shiga toxin I subunit A;
i0s5s4	256	27	10.5	SubName: Full=Zeta toxin;
i0b576	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
h7v250	267	28	10.5	SubName: Full=Cytolethal distending toxin subunit B-like pro...
h7ums6	258	27	10.5	SubName: Full=Cytolethal distending toxin subunit A;
h5hi69	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
h4yrs6	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
h4rd58	373	39	10.5	SubName: Full=Toxin B domain protein;
h4q8l4	373	39	10.5	SubName: Full=Toxin B domain protein;
h4nu51	373	39	10.5	SubName: Full=Toxin B domain protein;
h4iay7	248	26	10.5	SubName: Full=Zonular occludens toxin family protein;
h3ua87	239	25	10.5	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h3u7x4	239	25	10.5	SubName: Full=Toxin, beta-grasp domain protein;

h3twb7	239	25	10.5	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h3tsb7	239	25	10.5	SubName: Full=Toxin, beta-grasp domain protein;
h1t5l0	239	25	10.5	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h1t1u5	239	25	10.5	SubName: Full=Toxin, beta-grasp domain protein;
h1swb0	313	33	10.5	SubName: Full=Toxin, beta-grasp domain protein;
h0cx24	315	33	10.5	SubName: Full=Toxin, beta-grasp domain protein;
g8nsi7	247	26	10.5	SubName: Full=Zeta toxin family protein;
g7tnm2	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
g3jhi5	427	45	10.5	SubName: Full=Toxin biosynthesis protein, putative;
g2a0g5	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
g1yy42	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
f9lvw0	256	27	10.5	SubName: Full=Zeta toxin;
f9jmz7	239	25	10.5	SubName: Full=Toxin, beta-grasp domain protein;
f0p944	304	32	10.5	SubName: Full=Exfoliative toxin A;
e9fmm8	258	27	10.5	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9fkw7	256	27	10.5	SubName: Full=Zeta toxin superfamily;
e9eu03	332	35	10.5	SubName: Full=Zeta toxin family protein;
e9dn63	257	27	10.5	SubName: Full=Zeta-toxin;
e7ij10	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
e7h8m7	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
e6acd0	238	25	10.5	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e5rql1	277	29	10.5	SubName: Full=Exfoliative toxin;
e2xh95	315	33	10.5	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
e0tn06	256	27	10.5	SubName: Full=Zeta toxin;
d9wm99	294	31	10.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d7z3k4	238	25	10.5	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7h7i8	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
d6kaj1	286	30	10.5	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d3pgm3	256	27	10.5	SubName: Full=Kunitz/BPTI-like toxin;
d3i7i9	229	24	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d3app9	333	35	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d2yuv6	399	42	10.5	SubName: Full=Zona occludens toxin;
d2tvp2	449	47	10.5	SubName: Full=RTX toxin ABC transporter protein;
d1w768	381	40	10.5	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d0h7l2	399	42	10.5	SubName: Full=Zona occludens toxin;
d0gvw5	457	48	10.5	SubName: Full=Zona occludens toxin;
d0eva2	399	42	10.5	SubName: Full=Zonula occludens toxin type 1;
c9nxt9	229	24	10.5	SubName: Full=Cholera toxin transcriptional activator;
c9mv70	257	27	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
c9l7t6	219	23	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
c9d7r2	256	27	10.5	SubName: Full=Astacin-like metalloprotease toxin 2; Flags: P...
c8uej9	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
c8u110	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
c6ybh1	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
c6m4h5	323	34	10.5	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
c3pkw4	258	27	10.5	SubName: Full=Putative zeta-toxin;
c3ltn2	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
c2jin8	399	42	10.5	SubName: Full=Zona occludens toxin;
b6zz03	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b6qk83	381	40	10.5	SubName: Full=Toxin biosynthesis protein, putative;
b6dz86	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A;
b3g4c5	333	35	10.5	SubName: Full=RTX toxin-like protein;
b3bqk2	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b3b832	315	33	10.5	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
a8zrf3	333	35	10.5	SubName: Full=ATPase, Zeta toxin;
a8b1h9	315	33	10.5	SubName: Full=Shiga toxin 1 subunit A; SubName: Full=Shiga t...
a5f097	399	42	10.5	SubName: Full=Zona occludens toxin;
a3usg7	239	25	10.5	SubName: Full=Cholera toxin transcriptional activator;

a3h0m9	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator; SubNa...
a3gnz6	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
a3elj8	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
a1f5i1	294	31	10.5	SubName: Full=Cholera toxin transcriptional activator;
a1et22	399	42	10.5	SubName: Full=Zona occludens toxin;
a1d5b5	421	44	10.5	SubName: Full=Toxin biosynthesis protein, putative;
r0xtp1	422	44	10.4	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9kwg9	278	29	10.4	SubName: Full=Exfoliative toxin C;
q9anx8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q93tt6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q8vsr2	240	25	10.4	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q7x6n6	335	35	10.4	SubName: Full=Os07g0601100 protein; SubName: Full=Putative N...
q7whg5	241	25	10.4	SubName: Full=Putative toxin;
q7wdu8	269	28	10.4	RecName: Full=Pertussis toxin subunit 1 homolog; Flags: Prec...
q7bgc9	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q5pfi5	240	25	10.4	RecName: Full=Guanine nucleotide exchange factor SopE; AltNa...
q5ar34	298	31	10.4	SubName: Full=Toxin biosynthesis proten (Fum3), putative (AF...
q57028	327	34	10.4	SubName: Full=35.8-kilodalton mosquitocidal toxin;
q4jv96	240	25	10.4	RecName: Full=Diphtheria toxin repressor; AltName: Full=Iron...
q45471	336	35	10.4	SubName: Full=35.8-kilodalton mosquitocidal toxin;
q3qzb9	384	40	10.4	SubName: Full=Zonular occludens toxin;
q2k6y0	538	56	10.4	SubName: Full=Putative RTX toxin hemolysin-type protein;
q1emi4	367	38	10.4	SubName: Full=Putative associated RTX toxin transporter;
p70352	309	32	10.4	RecName: Full=Ecto-ADP-ribosyltransferase 5; EC=2.4.2.31; Al...
p29491	278	29	10.4	RecName: Full=Toxin coregulated pilus biosynthesis protein D...
p29485	221	23	10.4	RecName: Full=Toxin coregulated pilus biosynthesis protein P...
p20798	279	29	10.4	RecName: Full=Toxin TxP-I; AltName: Full=Tox34; Flags: Precu...
p04977	269	28	10.4	RecName: Full=Pertussis toxin subunit 1; Short=PTX S1; AltNa...
o35975	289	30	10.4	RecName: Full=T-cell ecto-ADP-ribosyltransferase 2; EC=2.4.2...
n1rj84	403	42	10.4	SubName: Full=Killer toxin subunits alpha/beta;
m7u000	425	44	10.4	SubName: Full=Putative toxin biosynthesis protein;
m7ms43	298	31	10.4	SubName: Full=Zeta toxin;
m7m1i1	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7ll16	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7lcs6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7l0g8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7kr46	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7k212	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7jvk7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7jdg6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7irf6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7ii83	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7i7y8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7hfy9	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7hfg4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7gyy0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7g957	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m7fa08	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
m3e0p2	471	49	10.4	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
m2wlz7	424	44	10.4	SubName: Full=Zona occludens toxin;
m1x497	308	32	10.4	SubName: Full=Toxin secretion ABC transporter ATP-binding pr...
m0pv42	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l9ac32	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
l8tgm8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8t1j0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8ssz4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8s8i5	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8s0k8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...

l8rkl2	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8rcf8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8qze7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l8qrw9	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l7irg0	501	52	10.4	SubName: Full=Multidrug and toxin extrusion protein 1;
l7ies4	501	52	10.4	SubName: Full=Multidrug and toxin extrusion protein 1;
l7dyr0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l1mw51	404	42	10.4	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k9ggp7	347	36	10.4	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
k9fuj9	347	36	10.4	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
k5sm15	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5shv6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5rxl4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5pie7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5l8s8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5kap9	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k5k787	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k4tzb4	269	28	10.4	SubName: Full=Pertussis toxin subunit 1; EC=2.4.2.-;
k3sls9	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
k3rts7	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
k3qwn5	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
k3dt46	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
k2xex8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2wrs7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2wj67	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2vxa5	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2ucq0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2ttp4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k0g684	308	32	10.4	SubName: Full=35.8-kilodalton mosquitocidal toxin;
j7fsj2	269	28	10.4	SubName: Full=Pertussis toxin subunit 1;
j7fna7	269	28	10.4	SubName: Full=Pertussis toxin subunit 1;
j7bj35	251	26	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j6yt77	251	26	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
j3k735	335	35	10.4	SubName: Full=Toxin biosynthesis protein;
j2a4b4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j2a0g2	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1wzv4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1wpf1	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1w0m3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1nq03	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1nkx1	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1mem7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1m885	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1khq4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1g270	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1ffz9	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1cnw3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j0rsu4	250	26	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
j0jnr4	404	42	10.4	SubName: Full=Vacuolating toxin;
i7at43	269	28	10.4	SubName: Full=Putative zeta-toxin;
i5rva5	260	27	10.4	SubName: Full=Shiga toxin 2, subunit A; EC=3.2.2.22;
i5qe19	260	27	10.4	SubName: Full=Shiga toxin 2, subunit A; EC=3.2.2.22;
i5qb70	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i5ps55	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i5k6a5	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i2us64	260	27	10.4	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i1dfs4	230	24	10.4	SubName: Full=Toxin transcriptional activator ToxR;
h8jv53	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...

h5du59	269	28	10.4	SubName: Full=Toxin B domain protein;
h1ste7	240	25	10.4	SubName: Full=Toxin, beta-grasp domain protein;
g7w7u8	345	36	10.4	SubName: Full=Putative membrane protein, putative toxin regu...
g7tmz2	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7c4u7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7bu94	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7bgk0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7b5q8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7av65	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7aln4	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7aai6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7a1b0	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6zqs8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6zd79	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6z4p6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g4mkf0	501	52	10.4	SubName: Full=Multidrug and toxin extrusion protein 1;
g0wkn6	345	36	10.4	SubName: Full=Hypothetical membrane protein; SubName: Full=M...
f9kur6	308	32	10.4	SubName: Full=Toxin, beta-grasp domain protein;
f9kh92	240	25	10.4	SubName: Full=Toxin, beta-grasp domain protein;
f9c554	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f9b8r6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8zty3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8zj36	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8z7p8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f8ywr8	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
f6av87	454	47	10.4	SubName: Full=Zonular occludens toxin;
f4xfr5	308	32	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
f4lg55	269	28	10.4	SubName: Full=Toxin subunit 1;
f4ac07	279	29	10.4	SubName: Full=Putative epsilon-toxin type B;
f3bjg3	414	43	10.4	SubName: Full=Toxin secretion, membrane fusion protein;
f0xb50	289	30	10.4	SubName: Full=Toxin biosynthesis proten;
f0hfz5	396	41	10.4	SubName: Full=Putative toxin-antitoxin system toxin componen...
e7mwn5	268	28	10.4	SubName: Full=Staphylococcal toxin, beta-grasp domain protei...
e5rm55	268	28	10.4	SubName: Full=Cytolethal distending toxin B;
e5rm34	268	28	10.4	SubName: Full=Cytolethal distending toxin A;
e5azk6	268	28	10.4	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e3bd20	384	40	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e2kpg4	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
e2kll5	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
e2kk27	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
e2ka80	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
e2jzz3	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
d9xzd1	279	29	10.4	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d8n3i8	395	41	10.4	SubName: Full=Putative zeta toxin of the postsegregational k...
d7vnu2	297	31	10.4	SubName: Full=Fic family toxin-antitoxin system;
d7hlb6	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d7hla9	278	29	10.4	SubName: Full=Toxin coregulated pilus biosynthesis protein D...
d4w3k8	396	41	10.4	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
d4qhw8	222	23	10.4	SubName: Full=Zeta toxin family protein;
d4cn42	222	23	10.4	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3kzy5	297	31	10.4	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3i7q2	431	45	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d3aa91	317	33	10.4	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d1w920	375	39	10.4	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d0ys52	451	47	10.4	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d0hrr7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d0h654	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c8tpy4	318	33	10.4	SubName: Full=Shiga toxin 1 subunit A;

c7m646	270	28	10.4	SubName: Full=Zeta toxin family protein;
c6yew0	278	29	10.4	SubName: Full=Toxin coregulated pilus biosynthesis protein D...
c6yev3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c6rw07	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c5grr0	357	37	10.4	SubName: Full=Toxin biosynthesis protein;
c3xie3	240	25	10.4	SubName: Full=Cytolethal distending toxin subunit A;
c3nt72	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3nt65	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3lt84	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3lt77	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ja23	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ja17	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ign0	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2igm3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2h0d0	345	36	10.4	SubName: Full=Membrane protein, toxin regulator; SubName: Fu...
c2dhy6	345	36	10.4	SubName: Full=Membrane protein, toxin regulator;
c0x6n5	345	36	10.4	SubName: Full=Membrane protein, toxin regulator;
c0mpk6	269	28	10.4	SubName: Full=Pertussis toxin subunit 1; SubName: Full=Toxin...
b9kdq2	259	27	10.4	SubName: Full=Cytolethal distending toxin, subunit CdtB;
b6zxf5	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b6qrt0	423	44	10.4	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
b3ba08	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b2pt79	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b2pit5	260	27	10.4	SubName: Full=Shiga toxin subunit A; EC=3.2.2.22;
b2i4x2	384	40	10.4	SubName: Full=Zonular occludens toxin;
b2i4v8	384	40	10.4	SubName: Full=Zonular occludens toxin;
b0ske4	367	38	10.4	SubName: Full=Putative associated RTX toxin transporter;
a9khl3	250	26	10.4	SubName: Full=Toxin secretion/phage lysis holin;
a8y3h3	365	38	10.4	RecName: Full=Beta-1,3-galactosyltransferase bre-2; EC=2.4.1...
a5f397	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a5f390	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3upp1	453	47	10.4	SubName: Full=RTX toxin transporter;
a3gys0	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gyr3	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gme5	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gmd8	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1f0y8	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1f0y1	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1eic7	221	23	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1eic0	278	29	10.4	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
r4fqk4	101	22	10.3	SubName: Full=Putative spider toxin domain protein;
r4ce74	112	22	10.3	SubName: Full=Zeta-toxin;
r3v659	102	22	10.3	SubName: Full=Zeta-toxin;
r2t3f5	127	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
r2ri76	190	22	10.3	SubName: Full=Zeta-toxin;
r2pb90	123	22	10.3	SubName: Full=MazF family toxin-antitoxin system, toxin comp...
r2npx0	137	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
r2d897	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
r1b7d5	243	25	10.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
r1awy7	243	25	10.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0sqf4	243	25	10.3	SubName: Full=Pre-toxin domain with VENN motif family protei...
q9xy87	85	22	10.3	RecName: Full=Beta-insect depressant toxin BmKITa; Short=BmK...
q9uyg4	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q9tu25	192	22	10.3	RecName: Full=Ras-related C3 botulinum toxin substrate 2; Al...
q9mbz7	87	22	10.3	SubName: Full=Shiga toxin 2e B-subunit; SubName: Full=StxB2e...
q9ajv2	108	22	10.3	SubName: Full=CcdB; SubName: Full=CcdB protein; SubName: Ful...
q9afm6	110	22	10.3	SubName: Full=Post-segregation toxin;
q9aag1	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q981i7	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q97u93	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q96zn1	130	22	10.3	SubName: Full=Putative toxin;
q95wc9	84	22	10.3	RecName: Full=Toxin CsE9; AltName: Full=Neurotoxin 9; Flags:...
q92sq4	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q92qn4	121	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q92q75	92	22	10.3	SubName: Full=Putative toxin RelE;
q8z6a3	137	22	10.3	SubName: Full=Putative pertussis-like toxin subunit;
q8y122	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8u1i4	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8tqm5	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8prh3	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q8ggl0	89	22	10.3	SubName: Full=Shiga toxin 2-B subunit; SubName: Full=Shiga t...
q8gax8	281	29	10.3	SubName: Full=Exfoliative toxin D;
q8fre4	150	22	10.3	SubName: Full=PIN family toxin-antitoxin system, toxin compo...
q8fq77	79	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component; SubNa...
q8fdb4	154	22	10.3	RecName: Full=Toxin YhaV; EC=3.1.-.-; AltName: Full=Ribonucl...
q8ech2	455	47	10.3	SubName: Full=Toxin-antitoxin system toxin HipA family;
q8e859	111	22	10.3	SubName: Full=Toxin-antitoxin system toxin component RelE fa...
q8e857	138	22	10.3	SubName: Full=Toxin-antitoxin system antidote transcriptiona...
q89sg6	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q82t21	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7wth4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q7vg76	273	28	10.3	SubName: Full=Cytolethal distending toxin CdtB;
q7u1n8	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7twj5	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nmy3	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7nek4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7n2l9	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q7mdk4	159	22	10.3	SubName: Full=RTX toxin activating protein;
q7bgc6	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
q74dg2	103	22	10.3	SubName: Full=Toxin, RelE family;
q71mi7	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6n490	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6n456	213	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q6mx40	93	22	10.3	RecName: Full=Probable toxin MazF1; EC=3.1.-.-; AltName: Ful...
q6en21	85	22	10.3	SubName: Full=Toxin KIM;
q68pg3	84	22	10.3	RecName: Full=Toxin Cex12; Flags: Precursor;
q5pfa7	143	22	10.3	SubName: Full=Putative shiga-like toxin A subunit;
q5p4x4	125	22	10.3	SubName: Full=RelE-like Cytotoxic translational repressor of...
q5gyv4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q5aym6	350	36	10.3	SubName: Full=Killer toxin sensitivity protein (Iki1), putat...
q57sx8	147	22	10.3	SubName: Full=Putative shiga-like toxin A subunit;
q508i8	387	40	10.3	SubName: Full=Anthrax toxin receptor/neuroblastoma fusion pr...
q50689	105	22	10.3	RecName: Full=Putative toxin MazF8; EC=3.1.-.-;
q4zy20	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q4ul11	87	22	10.3	SubName: Full=Probable toxin of toxin-antitoxin system;
q4qnl7	134	22	10.3	RecName: Full=Ribonuclease VapC1; Short=RNase VapC; EC=3.1.-...
q4lct3	80	22	10.3	RecName: Full=Toxin-like peptide AaF1CA1; Flags: Precursor;
q4lcs8	82	22	10.3	RecName: Full=Beta-toxin AaBTxL1; AltName: Full=Neurotoxin A...
q4jbf3	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q47644	87	22	10.3	SubName: Full=Orf protein; SubName: Full=SLT-IIeB; SubName: ...
q46tb2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3tlp8	211	22	10.3	SubName: Full=RAS-related C3 botulinum substrate 1, isoform ...
q3rc13	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3r7l3	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3m809	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3in80	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

q3c003	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q3ass2	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q39yw4	112	22	10.3	SubName: Full=Toxin, RelE family;
q39w17	76	22	10.3	SubName: Full=Toxin, HicA family;
q39sg3	89	22	10.3	SubName: Full=Toxin, HicA family;
q398v1	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q31sh4	108	22	10.3	SubName: Full=Post-segregation toxin;
q2vnx7	138	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
q2ry99	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2ruh9	154	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2p1v4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2k9p3	170	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2j5r1	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2iy85	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2fsm6	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q2fnj3	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q212q0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q20yw0	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1qyn1	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ny49	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nx43	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nws6	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nwh9	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nvp8	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nu61	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nmc9	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nld2	161	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1nir1	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q1ikp1	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE;
q1b0i2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q18ef3	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q13hu3	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q135d4	146	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q13508	389	40	10.3	RecName: Full=Ecto-ADP-ribosyltransferase 3; EC=2.4.2.31; Al...
q124x9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0rt74	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0jyt1	445	46	10.3	SubName: Full=RTX toxin membrane fusion protein;
q0idv0	148	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0gy45	91	22	10.3	RecName: Full=Potassium channel toxin TtrKIK; Flags: Precurs...
q0b8r7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q0b7y2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
q09118	208	22	10.3	RecName: Full=Proheparin-binding EGF-like growth factor; Con...
p84685	85	22	10.3	RecName: Full=Toxin To6; AltName: Full=PT-alpha* NaTx7.5; Al...
p82814	62	22	10.3	RecName: Full=Insect toxin BsIT4; Short=Insect toxin 4; AltN...
p81240	61	22	10.3	RecName: Full=Insect toxin LqhIT5; Short=Lqh IT5; Short=Toxi...
p71294	87	22	10.3	SubName: Full=Shiga-like toxin IIe variant B subunit;
p62023	138	22	10.3	RecName: Full=Basic phospholipase A2 Mtx-b; Short=svPLA2; EC...
p60979	74	22	10.3	RecName: Full=Omega-filistatoxin-Kh1a; Short=Omega-FLTX-Kh1a...
p60213	86	22	10.3	RecName: Full=Toxin To3; AltName: Full=PT-alpha' NaTx14.2; A...
p60163	68	22	10.3	RecName: Full=Toxin Cg2;
p59865	85	22	10.3	RecName: Full=Toxin Cll7; Flags: Precursor;
p59356	64	22	10.3	RecName: Full=Alpha-like toxin Lqh6; AltName: Full=Lqh VI; S...
p45774	194	22	10.3	RecName: Full=Type II secretion system protein H; Short=T2SS...
p45666	66	22	10.3	RecName: Full=Beta-toxin Cll1m; AltName: Full=Neurotoxin 1; ...
p29490	150	22	10.3	RecName: Full=Toxin coregulated pilus biosynthesis protein Q...
p18329	80	22	10.3	RecName: Full=Toxin C13S1C1; Flags: Precursor;
p17728	85	22	10.3	RecName: Full=Alpha-insect toxin LqhaIT; AltName: Full=Lqh-a...
p15228	85	22	10.3	RecName: Full=Toxin BmKAEP; AltName: Full=Anti-epilepsy pept...

p15153	192	22	10.3	RecName: Full=Ras-related C3 botulinum toxin substrate 2; Al...
p0c5k8	86	22	10.3	RecName: Full=Toxin TbTx5; AltName: Full=T-alpha* NaTx3.4; F...
p0c078	95	22	10.3	RecName: Full=mRNA interferase RelE; EC=3.1.-.-; AltName: Fu...
p0c077	95	22	10.3	RecName: Full=mRNA interferase RelE; EC=3.1.-.-; AltName: Fu...
p0ae71	111	22	10.3	RecName: Full=mRNA interferase MazF; EC=3.1.-.-; AltName: Fu...
p0ae70	111	22	10.3	RecName: Full=mRNA interferase MazF; EC=3.1.-.-; AltName: Fu...
p09985	174	22	10.3	RecName: Full=Hemolysin-activating lysine-acyltransferase Hl...
p01393	72	22	10.3	RecName: Full=Alpha-elapitoxin-Djk2a; Short=Alpha-EPTX-Djk2a...
p01389	72	22	10.3	RecName: Full=Long neurotoxin 1; AltName: Full=Toxin III;
o68560	144	22	10.3	RecName: Full=Ribosome association toxin RatA;
o53450	103	22	10.3	RecName: Full=mRNA interferase MazF3; EC=3.1.-.-; AltName: F...
o29932	150	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o29927	151	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o29862	166	22	10.3	RecName: Full=Endoribonuclease Nob1; Short=RNase Nob1; EC=3....
o28886	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o28267	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
o07780	137	22	10.3	RecName: Full=Probable ribonuclease VapC27; Short=Probable R...
n9wkq6	122	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
n9svf1	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n9qhp6	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n9ln61	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n9ij14	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n9e5n5	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n8psj1	87	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
n6y2b6	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
n6xbn4	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
n6wfz3	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
n6wet7	111	22	10.3	SubName: Full=Toxin MazF;
n4us86	319	33	10.3	SubName: Full=Zeta toxin family protein;
n4t675	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4srq6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4sdp7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4rzh4	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4rgk0	124	22	10.3	SubName: Full=Toxin CbtA;
n4rg03	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ren7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4r574	124	22	10.3	SubName: Full=Toxin CbtA;
n4qz39	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4qxs4	124	22	10.3	SubName: Full=Toxin CbtA;
n4qk43	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4q0f8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4pur8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4pqm7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4p1m8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4nhd3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ng56	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4mlc6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4mbq4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4lum3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4lb73	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4kkh4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4kbz2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4k0m1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ji41	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ixg9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ilf9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4hze6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ctt7	124	22	10.3	SubName: Full=Toxin CbtA;

n4crf5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4cne4	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4clk0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4cah2	124	22	10.3	SubName: Full=Toxin CbtA;
n4c7l3	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n4c176	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4bj28	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4b8a4	124	22	10.3	SubName: Full=Toxin CbtA;
n4b5g0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4b4h6	124	22	10.3	SubName: Full=Toxin CbtA;
n4arm6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4ahq8	124	22	10.3	SubName: Full=Toxin CbtA;
n4a7a4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n4a2a0	124	22	10.3	SubName: Full=Toxin CbtA;
n3zvf5	124	22	10.3	SubName: Full=Toxin CbtA;
n3zu49	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3zu12	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3zcr4	124	22	10.3	SubName: Full=Toxin CbtA;
n3z375	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3yvh0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3yra2	124	22	10.3	SubName: Full=Toxin CbtA;
n3ylk6	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3ygf0	124	22	10.3	SubName: Full=Toxin CbtA;
n3y6v3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3xvc6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3xaw7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3x0s5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3wgx3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3wdq1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3vc41	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3v3d3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3um21	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3uix0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3u878	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3txm9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3sx77	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3swl6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3seh2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3rsg7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3rl69	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3r4s3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3qht8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3py67	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3pm96	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3nlr9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3nej3	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n3n6b7	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n3n1j3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3mz95	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3mm20	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3l5v1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3kij1	97	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
n3k5t6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3k2w8	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n3jbl1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3j7s3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3ibi0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3hwi3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;

n3hum7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3h4f5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3gqy7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3fw90	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3ftf4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3f532	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3exc4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3eak2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3e995	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3dxt8	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n3d719	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3d6x8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3ceh5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3c2p9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3byj2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3bec0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3b0j8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n3a908	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2zvv8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2yxr9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2yui9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2ydu8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2xgk3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2xgh9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2stb1	106	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2sgw8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2rvq9	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2r9y8	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2q623	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2ppv0	97	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
n2p0k1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2nvg1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2nj57	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2nj52	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2nj40	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2mc65	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2lm50	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2lj87	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2law0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2ku58	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2k4k6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2jep5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2iig2	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2ify8	206	22	10.3	SubName: Full=Toxin coregulated pilin;
n2hj86	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2hap4	124	22	10.3	SubName: Full=Toxin CbtA;
n2h096	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2gmy6	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
n2fz71	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2f3y0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2ekf7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2dpr5	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
n2dkw4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2dgq6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n2bnz2	145	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
n2a3v0	86	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
n2a052	137	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
n1zvx2	98	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;

n1xjv9	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
n1x8z9	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
n1x8p6	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
n1x4y0	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
n1x321	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
n1wz37	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
n1ww67	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
n1wny3	165	22	10.3	SubName: Full=Antitoxin component of toxin-antitoxin system,...
n1tz86	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
n1tdt7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n1sst2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
n1ns99	153	22	10.3	SubName: Full=RTX toxin activating protein;
n1ml17	92	22	10.3	SubName: Full=HigB toxin protein;
n1lzn3	139	22	10.3	SubName: Full=Lmo0066 homolog within ESAT-6 gene cluster,sim...
n1lfz7	132	22	10.3	SubName: Full=Putative toxin component near putative ESAT-re...
n0gpx0	162	22	10.3	SubName: Full=Cholera toxin transcriptional activator;
n0gi55	162	22	10.3	SubName: Full=Cholera toxin transcriptional activator;
n0ej68	162	22	10.3	SubName: Full=Cholera toxin transcriptional activator;
n0c0f0	137	22	10.3	SubName: Full=Toxin subunit;
m9v3b7	201	22	10.3	SubName: Full=Toxin 2A;
m9uut9	170	22	10.3	SubName: Full=Toxin;
m9lbb6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9l6b2	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9kdw5	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9k887	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9jrb2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9jnb4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9itd4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9in48	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9ii16	124	22	10.3	SubName: Full=Toxin CbtA;
m9i7i1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9hjx4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9hij0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9h7c7	97	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m9h546	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9gqn4	206	22	10.3	SubName: Full=Toxin coregulated pilin;
m9gbf7	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m9frm8	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m9f943	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9eyp8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9efi1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9e5b9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9dn56	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9crc9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9ca52	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9asi4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9af43	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9acc3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9a671	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m9a3y3	97	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m8yz49	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8yei3	106	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8x2q3	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8whq7	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8wgh9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8wae6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8vs86	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8v4t6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;

m8uv70	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8tnz1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8thl6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8tf50	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8s3l1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8ry77	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8rpb6	206	22	10.3	SubName: Full=Toxin coregulated pilin;
m8qs27	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8qru0	94	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis Q family...
m8qr22	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8q7r1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8ptj9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8pl48	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8nff1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8nfb8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8nbq6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8mg43	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8m7k4	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8lh57	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8l3n0	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8l1r9	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m8kya9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8jwr6	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8jn63	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
m8dfu8	170	22	10.3	SubName: Full=Toxin;
m7xsb1	108	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin MazF;
m7w5k0	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
m7vxj7	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
m7vs86	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
m7vbw6	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
m7upw8	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
m7t6m1	368	38	10.3	SubName: Full=Putative killer toxin sensitivity protein;
m7sia1	151	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m7r9t9	93	22	10.3	SubName: Full=Toxin RelE;
m7pp54	83	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
m7e2n4	104	22	10.3	SubName: Full=Putative RelE/StbE family addiction module tox...
m7bz60	192	22	10.3	SubName: Full=Hemolytic toxin Avt-1;
m7byk7	130	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component DNA-bi...
m6ype2	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6ym88	138	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6wwh8	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6wgb1	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6vur3	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6ub47	134	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6tgl6	133	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6s4l6	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6qz88	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6que5	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6qfx7	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6nh66	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6mic1	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6m532	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6li36	93	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6lfk2	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6la37	98	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6l619	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6l2s2	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6kwn7	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...

m6kuk7	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6hf76	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6hbz8	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6g672	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6fwc7	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6fa65	78	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6e9c2	78	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6e4s0	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m6dqy5	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6d135	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6cq32	129	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
m6cpl9	78	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
m6c138	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6c0p7	97	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6bqz8	110	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m6b1s5	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6ayt3	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m6ale6	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m6adv8	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5zud4	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m5y4h7	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m5xts2	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5v2i4	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5str8	102	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m5nau6	165	22	10.3	SubName: Full=Cholera toxin secretion protein EpsM;
m5n738	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5n6x5	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5myc3	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5mth7	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5msy6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5mnr0	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5mhc6	119	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m5mam9	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5m7r7	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5m286	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5lnw5	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5lfr2	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5ldd4	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5l8q1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5kwg1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5kis1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5kij4	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5k2e9	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5jgd8	131	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component Doc fa...
m5jgd7	102	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component Ma...
m5jbq7	156	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m5hqb2	111	22	10.3	SubName: Full=Toxin MazF;
m5hiz2	111	22	10.3	SubName: Full=Toxin MazF;
m5hee5	111	22	10.3	SubName: Full=Toxin MazF;
m5ese6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
m5crq2	89	22	10.3	SubName: Full=Toxin higB-1;
m5b7u3	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
m4wu79	103	22	10.3	SubName: Full=DNA gyrase-inactivating toxin CcdB;
m4v335	75	22	10.3	SubName: Full=MazE family protein, putative toxin antidote;
m4uka1	99	22	10.3	SubName: Full=Putative antitoxin (To hypothetical toxin);
m4uit8	137	22	10.3	SubName: Full=Programmed cell death toxin MazF like protein;...
m4n0i4	92	22	10.3	SubName: Full=Putative toxin RelE;
m4kid0	130	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component DNA-bi...

m4jql4	111	22	10.3	SubName: Full=Toxin ChpA;
m4hqh1	87	22	10.3	SubName: Full=Addiction module toxin protein;
m3vtd5	87	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component;
m3v760	102	22	10.3	SubName: Full=Toxin SymE, type I toxin-antitoxin system fami...
m3uxx7	88	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
m3gzm6	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
m3g4h6	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m3fh02	194	22	10.3	SubName: Full=Xre family toxin-antitoxin system antitoxin co...
m3fcr3	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m3dq54	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
m2u1d3	151	22	10.3	SubName: Full=RTX-I toxin-activating lysine-acyltransferase ...
m2u0n8	116	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
m2s5q4	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
m2pam6	111	22	10.3	SubName: Full=Toxin ChpA;
m2p4w6	111	22	10.3	SubName: Full=Toxin ChpA;
m2nkh2	117	22	10.3	SubName: Full=Toxin-Like Protein Sklp;
m2n1i7	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
m2mzk4	95	22	10.3	SubName: Full=Stability protein (Toxin);
m2f279	90	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m2dk74	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
m2cuw6	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
m2crz0	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
m2cmd4	139	22	10.3	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2cka7	85	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
m2cfe2	139	22	10.3	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2c604	139	22	10.3	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2bvk8	148	22	10.3	SubName: Full=PIN family putative toxin-antitoxin system tox...
m2ag68	148	22	10.3	SubName: Full=PIN family putative toxin-antitoxin system tox...
m1ufg7	89	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
m1jlp5	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1iw07	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1iqg6	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1ihf5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m1i2a7	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0p9b8	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0p6p9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0njx3	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0n6g7	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0m7t9	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0lxj2	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0ltl8	131	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
m0lqm9	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0jk66	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0jjk5	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0gj44	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fqn4	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0fm72	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0flu0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0e1n3	148	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dp93	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
m0dke3	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9xx41	132	22	10.3	SubName: Full=Membrane protein involved in toxin uptake;
l9xp06	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9vs86	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l9m9t9	178	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
l9lqj5	105	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l8y5k7	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
l8v940	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l8uje6	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8pfz1	150	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8nc52	83	22	10.3	SubName: Full=VapB/FitA-like antitoxin protein of type II to...
l8n4w1	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8n294	109	22	10.3	SubName: Full=MazE/toxin transcriptional modulator MazF prot...
l8mie7	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8maq0	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8m2e7	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
l8lk56	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8ljj3	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l8l9z8	136	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
l8l4f5	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
l8kwx2	137	22	10.3	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
l8k4c1	98	22	10.3	SubName: Full=Addiction module toxin, rele/stbe family prote...
l8j4n6	136	22	10.3	SubName: Full=RTX toxin activating lysine-acyltransferase;
l8hcy9	150	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 3 (Rh...
l8h9w9	193	22	10.3	SubName: Full=Rasrelated C3 botulinum toxin substrate 2, put...
l8c847	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
l8c1z6	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
l7zrn6	159	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7wym7	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
l7vra6	58	22	10.3	SubName: Full=HigB toxin protein;
l7vce2	197	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fin8	181	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l7fcu4	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l7fae2	66	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7ez93	74	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l7eu76	87	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l7e6h2	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l5rfg2	111	22	10.3	SubName: Full=Zonular occludens toxin family protein;
l5m9i7	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 2;
l5jbc3	154	22	10.3	SubName: Full=Toxin YhaV;
l5j019	154	22	10.3	SubName: Full=Toxin YhaV;
l5hud1	154	22	10.3	SubName: Full=Toxin YhaV;
l5h3i0	154	22	10.3	SubName: Full=Toxin YhaV;
l5gzu0	154	22	10.3	SubName: Full=Toxin YhaV;
l5g0u3	154	22	10.3	SubName: Full=Toxin YhaV;
l5ed13	154	22	10.3	SubName: Full=Toxin YhaV;
l5dnl2	154	22	10.3	SubName: Full=Toxin YhaV;
l5dga4	154	22	10.3	SubName: Full=Toxin YhaV;
l5d8s6	154	22	10.3	SubName: Full=Toxin YhaV;
l5cg22	154	22	10.3	SubName: Full=Toxin YhaV;
l5c8c6	154	22	10.3	SubName: Full=Toxin YhaV;
l5c325	154	22	10.3	SubName: Full=Toxin YhaV;
l5bhv5	154	22	10.3	SubName: Full=Toxin YhaV;
l5b1g8	154	22	10.3	SubName: Full=Toxin YhaV;
l5ax73	154	22	10.3	SubName: Full=Toxin YhaV;
l5ad63	154	22	10.3	SubName: Full=Toxin YhaV;
l5a193	154	22	10.3	SubName: Full=Toxin YhaV;
l4znr7	154	22	10.3	SubName: Full=Toxin YhaV;
l4z753	154	22	10.3	SubName: Full=Toxin YhaV;
l4ywu2	154	22	10.3	SubName: Full=Toxin YhaV;
l4yt25	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l4yk88	154	22	10.3	SubName: Full=Toxin YhaV;
l4xxy2	154	22	10.3	SubName: Full=Toxin YhaV;
l4wkd3	154	22	10.3	SubName: Full=Toxin YhaV;
l4w857	154	22	10.3	SubName: Full=Toxin YhaV;
l4v8k2	154	22	10.3	SubName: Full=Toxin YhaV;

l4uq75	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l4up24	154	22	10.3	SubName: Full=Toxin YhaV;
l4s0x0	154	22	10.3	SubName: Full=Toxin YhaV;
l4ruz9	154	22	10.3	SubName: Full=Toxin YhaV;
l4ray9	154	22	10.3	SubName: Full=Toxin YhaV;
l4r2j3	154	22	10.3	SubName: Full=Toxin YhaV;
l4qtq2	154	22	10.3	SubName: Full=Toxin YhaV;
l4qk67	154	22	10.3	SubName: Full=Toxin YhaV;
l4q0c4	154	22	10.3	SubName: Full=Toxin YhaV;
l4pyx0	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l4p4z0	154	22	10.3	SubName: Full=Toxin YhaV;
l4nk21	154	22	10.3	SubName: Full=Toxin YhaV;
l4mqs2	154	22	10.3	SubName: Full=Toxin YhaV;
l4mh78	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4m1j6	154	22	10.3	SubName: Full=Toxin YhaV;
l4lq76	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l4lmh6	154	22	10.3	SubName: Full=Toxin YhaV;
l4l7h5	154	22	10.3	SubName: Full=Toxin YhaV;
l4l0y9	154	22	10.3	SubName: Full=Toxin YhaV;
l4kn29	154	22	10.3	SubName: Full=Toxin YhaV;
l4jr30	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l4j396	125	22	10.3	SubName: Full=Toxin doc;
l4iai9	154	22	10.3	SubName: Full=Toxin YhaV;
l4hh51	154	22	10.3	SubName: Full=Toxin YhaV;
l4hfh4	154	22	10.3	SubName: Full=Toxin YhaV;
l4fv55	154	22	10.3	SubName: Full=Toxin YhaV;
l4f8u8	154	22	10.3	SubName: Full=Toxin YhaV;
l4eqf2	154	22	10.3	SubName: Full=Toxin YhaV;
l4d7u9	154	22	10.3	SubName: Full=Toxin YhaV;
l4bnd7	154	22	10.3	SubName: Full=Toxin YhaV;
l4bdh8	96	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l4asv2	154	22	10.3	SubName: Full=Toxin YhaV;
l4ady9	154	22	10.3	SubName: Full=Toxin YhaV;
l3zr62	154	22	10.3	SubName: Full=Toxin YhaV;
l3zmw0	154	22	10.3	SubName: Full=Toxin YhaV;
l3zkf1	96	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l3yx82	154	22	10.3	SubName: Full=Toxin YhaV;
l3ybq2	154	22	10.3	SubName: Full=Toxin YhaV;
l3xv88	154	22	10.3	SubName: Full=Toxin YhaV;
l3xmr6	154	22	10.3	SubName: Full=Toxin YhaV;
l3wnz0	154	22	10.3	SubName: Full=Toxin YhaV;
l3w3p7	154	22	10.3	SubName: Full=Toxin YhaV;
l3um48	154	22	10.3	SubName: Full=Toxin YhaV;
l3udp0	154	22	10.3	SubName: Full=Toxin YhaV;
l3sw11	154	22	10.3	SubName: Full=Toxin YhaV;
l3sv08	154	22	10.3	SubName: Full=Toxin YhaV;
l3s5b4	154	22	10.3	SubName: Full=Toxin YhaV;
l3qda2	154	22	10.3	SubName: Full=Toxin YhaV;
l3q0m2	154	22	10.3	SubName: Full=Toxin YhaV;
l3pkq9	154	22	10.3	SubName: Full=Toxin YhaV;
l3pgh2	132	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3nse9	154	22	10.3	SubName: Full=Toxin YhaV;
l3n1k5	154	22	10.3	SubName: Full=Toxin YhaV;
l3mmu1	154	22	10.3	SubName: Full=Toxin YhaV;
l3lae3	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3kys3	154	22	10.3	SubName: Full=Toxin YhaV;
l3krh7	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3kcq5	154	22	10.3	SubName: Full=Toxin YhaV;

l3k9n0	154	22	10.3	SubName: Full=Toxin YhaV;
l3i7b4	154	22	10.3	SubName: Full=Toxin YhaV;
l3h9s4	154	22	10.3	SubName: Full=Toxin YhaV;
l3gj52	154	22	10.3	SubName: Full=Toxin YhaV;
l3gbv5	154	22	10.3	SubName: Full=Toxin YhaV;
l3fpv4	154	22	10.3	SubName: Full=Toxin YhaV;
l3fbp2	154	22	10.3	SubName: Full=Toxin YhaV;
l3euj1	154	22	10.3	SubName: Full=Toxin YhaV;
l3e764	132	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l3e4f5	154	22	10.3	SubName: Full=Toxin YhaV;
l3dit3	154	22	10.3	SubName: Full=Toxin YhaV;
l3d539	154	22	10.3	SubName: Full=Toxin YhaV;
l3ch00	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l3ca03	154	22	10.3	SubName: Full=Toxin YhaV;
l3atz0	154	22	10.3	SubName: Full=Toxin YhaV;
l3a4n9	154	22	10.3	SubName: Full=Toxin YhaV;
l2zfg3	154	22	10.3	SubName: Full=Toxin YhaV;
l2z9e7	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l2yrh6	154	22	10.3	SubName: Full=Toxin YhaV;
l2ybm2	154	22	10.3	SubName: Full=Toxin YhaV;
l2x636	154	22	10.3	SubName: Full=Toxin YhaV;
l2wl54	154	22	10.3	SubName: Full=Toxin YhaV;
l2wg55	154	22	10.3	SubName: Full=Toxin YhaV;
l2viv3	154	22	10.3	SubName: Full=Toxin YhaV;
l2unl8	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
l2ukz8	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2t586	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
l2suw4	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
l2sn01	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
l2r575	224	23	10.3	SubName: Full=Zeta toxin;
l2lgy7	224	23	10.3	SubName: Full=Zeta toxin;
l2j2v5	112	22	10.3	SubName: Full=Zeta-toxin;
l2hdf1	134	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
l2fix0	348	36	10.3	SubName: Full=Killer toxin sensitivity protein;
l2e6e5	154	22	10.3	SubName: Full=Toxin YhaV;
l2dwm7	154	22	10.3	SubName: Full=Toxin YhaV;
l2dpt4	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2d5l7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2d326	154	22	10.3	SubName: Full=Toxin YhaV;
l2cqj0	154	22	10.3	SubName: Full=Toxin YhaV;
l2cqb6	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2clh8	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2c7l1	154	22	10.3	SubName: Full=Toxin YhaV;
l2c3r4	154	22	10.3	SubName: Full=Toxin YhaV;
l2bvr0	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2bqf4	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2bq47	154	22	10.3	SubName: Full=Toxin YhaV;
l2beh4	154	22	10.3	SubName: Full=Toxin YhaV;
l2b1w2	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2avm9	154	22	10.3	SubName: Full=Toxin YhaV;
l2ame2	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2al13	154	22	10.3	SubName: Full=Toxin YhaV;
l2aa31	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2a1u7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l2a0z8	154	22	10.3	SubName: Full=Toxin YhaV;
l1zpv3	154	22	10.3	SubName: Full=Toxin YhaV;
l1zm65	154	22	10.3	SubName: Full=Toxin YhaV;
l1z2c8	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

l1yvd7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1yt23	154	22	10.3	SubName: Full=Toxin YhaV;
l1yp37	154	22	10.3	SubName: Full=Toxin YhaV;
l1yfn9	154	22	10.3	SubName: Full=Toxin YhaV;
l1xx39	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xt09	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xni3	154	22	10.3	SubName: Full=Toxin YhaV;
l1xku7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1xc86	154	22	10.3	SubName: Full=Toxin YhaV;
l1x6a6	154	22	10.3	SubName: Full=Toxin YhaV;
l1wp41	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1wg12	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1wfk2	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1vz47	154	22	10.3	SubName: Full=Toxin YhaV;
l1vvc6	154	22	10.3	SubName: Full=Toxin YhaV;
l1vb33	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1v8w0	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1v834	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
l1v210	154	22	10.3	SubName: Full=Toxin YhaV;
l1qpd8	140	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
l1psb5	134	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
l1pjh1	88	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
l1p442	199	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Bro d...
l1p2c3	330	34	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l1nu40	104	22	10.3	SubName: Full=Putative toxin RelE;
l1my31	96	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
l1msu5	116	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
l1mad1	139	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
l1lwc4	107	22	10.3	SubName: Full=Toxin component RelE;
l1lvj1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1l1m1	74	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1kxj1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l1kva4	68	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l1kuw2	173	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
l1ksw9	291	30	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l1kpm9	81	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
l0w7i6	83	22	10.3	SubName: Full=PHD family toxin-antitoxin system;
l0qzd1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qyc7	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qxd6	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qsq3	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qre4	109	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
l0qr49	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qph3	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qna1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qlv4	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qg37	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qd80	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qc19	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0qa54	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0q4d2	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0pza4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ptr7	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ny66	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nss9	72	22	10.3	SubName: Full=Putative TOXIN VAPC11;
l0nqq4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0nps6	93	22	10.3	SubName: Full=Putative TOXIN MAZF1;
l0lw88	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

l0lf95	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0kya7	87	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
l0k1t1	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gr01	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0gfh6	167	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
l0dv27	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dtt5	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ds91	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0dcc1	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0ank6	388	40	10.3	SubName: Full=Uncharacterized protein; SubName: Full=Zonular...
l0a9f4	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
l0a0y5	145	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
k9zeq8	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9zas0	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9z8i4	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ydz7	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9y1l5	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9xze6	122	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9xmi9	116	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9x5c1	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9x408	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9x3g5	165	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9wwz4	77	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
k9wpx7	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vvd4	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9vs37	114	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k9vr69	119	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9url0	145	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9tt24	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9th93	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qz34	93	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
k9qui9	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qtm2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9qa99	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9prn1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9prm5	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9pig6	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p9e2	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p955	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p8q2	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p6t1	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p6k1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p5n4	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9p413	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9fku3	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9ejy7	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k9dah8	94	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k9d079	96	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k9b930	136	22	10.3	SubName: Full=Toxin repressor;
k9b672	178	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k9a823	182	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
k8zju5	105	22	10.3	SubName: Full=Toxin-antitoxin antitoxin xre family;
k8zb52	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8wgx8	93	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k8qyl4	121	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8m6k5	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8lex6	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k8l5h7	90	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...

k8l371	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k8l1g6	134	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k8kgw7	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k8kgi9	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
k8kfy3	93	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
k8k9u0	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k8k6y3	98	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
k8jg19	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k8j5x8	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k8ihk1	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k8ia10	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8hz57	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
k8hxf2	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8hl61	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
k8hig3	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8h4t2	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k8edp6	89	22	10.3	SubName: Full=Antitoxin of YafQ-DinJ toxin-antitoxin system;...
k8d660	95	22	10.3	SubName: Full=RelE antibacterial toxin protein;
k8d1p4	112	22	10.3	SubName: Full=YkfI toxin protein;
k8ctk0	95	22	10.3	SubName: Full=RelE antibacterial toxin protein;
k8cf56	95	22	10.3	SubName: Full=RelE antibacterial toxin protein;
k8aw76	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7wkj2	86	22	10.3	SubName: Full=Addiction module toxin Txe/YoeB; EC=3.1.-.-;
k7w4j5	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7s2b3	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7rla0	98	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k7rju0	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k7bdq8	102	22	10.3	SubName: Full=Anthrax toxin receptor 1;
k7agc1	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 2 (Rh...
k6x229	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6x0r5	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wvh9	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wjp1	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6wi02	150	22	10.3	SubName: Full=Toxin-antitoxin biofilm protein TabA;
k6wbg9	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6w6u6	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6vv71	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6vtr9	95	22	10.3	SubName: Full=Toxin RelE;
k6u0k3	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k6tkt2	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k6qfz9	134	22	10.3	SubName: Full=Putative membrane protein, putative toxin regu...
k6khm9	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
k6k2p5	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6j7a4	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k6it03	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ias1	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k6htz5	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6hhe2	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6haq6	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k6frn8	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k6fg65	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
k6f105	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ex42	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k6ewj6	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
k6duk3	107	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
k5zev3	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k5v9a5	100	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
k5tb58	124	22	10.3	SubName: Full=Zeta toxin family protein;

k5ssg4	100	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
k5rqr3	124	22	10.3	SubName: Full=Zeta toxin family protein;
k5mgj7	124	22	10.3	SubName: Full=Zeta toxin family protein;
k5m859	124	22	10.3	SubName: Full=Zeta toxin family protein;
k5m0v5	124	22	10.3	SubName: Full=Zeta toxin family protein;
k5kjk9	100	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
k5k0f6	124	22	10.3	SubName: Full=Zeta toxin family protein;
k5bxu4	132	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k5bn03	111	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
k4yhz5	94	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
k4y6u3	111	22	10.3	SubName: Full=Toxin MazF;
k4y6b9	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k4xlf8	111	22	10.3	SubName: Full=Toxin MazF;
k4xcd3	111	22	10.3	SubName: Full=Toxin MazF;
k4wym2	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k4wql2	111	22	10.3	SubName: Full=Toxin MazF;
k4vwd5	111	22	10.3	SubName: Full=Toxin MazF;
k4v7g8	111	22	10.3	SubName: Full=Toxin MazF;
k4v425	111	22	10.3	SubName: Full=Toxin MazF;
k4uy13	111	22	10.3	SubName: Full=Toxin MazF;
k4ls04	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k4lk88	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
k4lgs4	133	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
k4l9a3	133	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
k4ixg5	167	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin module, putative;...
k4ijd0	165	22	10.3	SubName: Full=Antitoxin component of toxin-antitoxin system,...
k4ib84	399	41	10.3	SubName: Full=Addiction module toxin protein HipA;
k3v2z1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
k3psm2	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
k3l2r4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k3k118	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
k3cjl8	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
k2uhs7	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
k2t132	349	36	10.3	SubName: Full=Putative insecticidal toxin complex;
k2pd93	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2lrw8	96	22	10.3	SubName: Full=CcdB-like toxin protein;
k2kzy3	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2j5b4	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k2gcx1	271	28	10.3	SubName: Full=Zeta toxin;
k1za06	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1z946	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
k1xf92	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1wqe8	107	22	10.3	SubName: Full=Addiction module toxin Txe/YoeB family;
k1v7y0	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k1tpg9	99	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k1sha0	131	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
k1b8d3	128	22	10.3	SubName: Full=Phage/plasmid maintenance toxin/antidote syste...
k1ah29	87	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component;
k1ad81	84	22	10.3	SubName: Full=Plasmid encoded toxin Txe superfamily protein;...
k1ac15	84	22	10.3	SubName: Full=Plasmid encoded toxin Txe superfamily protein;...
k1a807	87	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component;
k0zyr8	84	22	10.3	SubName: Full=Plasmid encoded toxin Txe superfamily protein;...
k0zgi4	87	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component;
k0yzg7	84	22	10.3	SubName: Full=Plasmid encoded toxin Txe superfamily protein;...
k0wy20	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
k0wd24	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0q4r9	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0plf5	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

k0pa22	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0ibs1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0g961	140	22	10.3	SubName: Full=HicB family toxin-antitoxin system;
k0fzn9	369	38	10.3	SubName: Full=41.9 kDa insecticidal toxin;
k0f5z9	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0emt8	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0cub1	98	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
k0ci72	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
k0cbc7	117	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
k0bug7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k0bt28	111	22	10.3	SubName: Full=Toxin MazF;
k0awb1	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
k0akl7	111	22	10.3	SubName: Full=Toxin MazF;
k0aby7	180	22	10.3	SubName: Full=Zeta toxin domain protein;
j9zvj0	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j9zgm7	111	22	10.3	SubName: Full=Toxin MazF;
j9wd68	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j8ywc7	141	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j8yjl5	224	23	10.3	SubName: Full=Zeta toxin;
j8wen5	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7s8x4	253	26	10.3	SubName: Full=Zeta toxin;
j7rtq9	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j7r740	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
j7qq77	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7q496	62	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
j7kjm9	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j7j9i9	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7j6p1	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j7blc2	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j7a5l3	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6z5k3	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6xlj3	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6xgb8	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6xew8	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6wzx4	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6wz58	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6rp16	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6rl54	134	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6qru6	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6qe36	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6q0u4	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6jg75	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j6hjd6	134	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6gjw2	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6ewm9	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j6dij9	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5yxi3	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5ycr3	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5xmr3	114	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
j5vuy1	129	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5vgx7	77	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
j5kkd8	205	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5k9s1	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5i2y1	134	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5hs42	115	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
j5g022	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5fws6	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5ems1	110	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin MazF;

j5ebb4	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j5cyr9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4xjk2	133	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
j4vxj9	125	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j4tq62	123	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
j4qw02	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j4jrw1	139	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
j4jk78	54	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j3ze73	100	22	10.3	SubName: Full=RelE family toxin-antitoxin system;
j3ja84	101	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
j3ft87	84	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3fia7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j3en35	104	22	10.3	SubName: Full=PHD family toxin-antitoxin system;
j3e4u2	84	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j3dr74	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
j3au10	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
j2z9j7	88	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
j2ysv4	88	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
j2v513	91	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j2t0c0	84	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
j2skn5	95	22	10.3	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j2rvj3	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2rhm1	300	31	10.3	SubName: Full=Zeta toxin;
j2qxs7	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2qw30	93	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
j2q6z2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2nhw6	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
j2mdm5	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2m731	190	22	10.3	SubName: Full=Shiga-like toxin 2 subunit A domain protein; E...
j2lla6	177	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
j2l2k9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2kdt2	91	22	10.3	SubName: Full=Programmed cell death toxin YdcE;
j2jpd0	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j2hbz1	141	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
j2g502	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1wha3	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j1v707	87	22	10.3	SubName: Full=Toxin;
j1ust5	123	22	10.3	SubName: Full=Zeta toxin superfamily;
j1q7j8	125	22	10.3	SubName: Full=Toxin CbtA;
j1pkx8	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
j1n4m1	253	26	10.3	SubName: Full=Zeta toxin family protein;
j1izi8	90	22	10.3	SubName: Full=YafQ family addiction module toxin component;
j1hx18	116	22	10.3	SubName: Full=Toxin-antitoxin toxin family;
j1hgs3	87	22	10.3	SubName: Full=Toxin;
j1gjn3	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
j1g280	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j1f7h5	86	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Txe/Y...
j1f704	89	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
j1eci1	253	26	10.3	SubName: Full=Zeta toxin family protein;
j1chw3	138	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
j1c7g6	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
j0wgi6	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
j0vc52	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
j0v2n2	261	27	10.3	SubName: Full=Zeta toxin family protein;
j0uq96	92	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
j0ums9	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
j0uct3	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
j0m776	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...

j0lz82	105	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
j0l4k0	96	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family; SubN...
j0jlb0	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0irj7	128	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
j0ct03	89	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
j0c0d1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0bp04	143	22	10.3	SubName: Full=Putative toxin-antitoxin system antitoxin comp...
j0blw5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
j0b1d7	132	22	10.3	SubName: Full=JHE-like toxin PirA;
i9nek1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9n7b3	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9lgu0	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9lek0	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i9dze4	114	22	10.3	SubName: Full=Toxin MazF5; EC=3.1.-.-;
i9dy82	99	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
i9aw65	114	22	10.3	SubName: Full=Toxin MazF5; EC=3.1.-.-;
i8zus6	114	22	10.3	SubName: Full=Toxin MazF5; EC=3.1.-.-;
i8u293	100	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
i8qq47	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i8gzk3	114	22	10.3	SubName: Full=Toxin MazF5; EC=3.1.-.-;
i7jd91	379	39	10.3	SubName: Full=Predicted membrane protein, putative toxin reg...
i7hcn4	207	22	10.3	SubName: Full=Putative cytolethal distending toxin subunit C...
i7brl3	185	22	10.3	SubName: Full=Zeta toxin family protein;
i6y9m5	103	22	10.3	SubName: Full=Toxin;
i6y8v7	105	22	10.3	SubName: Full=Toxin;
i6xvq5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6xvb6	93	22	10.3	SubName: Full=Toxin;
i6xq84	120	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rxh5	103	22	10.3	SubName: Full=Toxin;
i6rup7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6rpw6	105	22	10.3	SubName: Full=Toxin;
i6qul3	170	22	10.3	SubName: Full=Toxin;
i6qsk1	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6qsg4	93	22	10.3	SubName: Full=Toxin;
i6gxw8	93	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i6fxl8	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
i6b3t6	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ayj6	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ay70	151	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6ay14	116	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i6a4r5	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
i5w0p8	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
i5rk04	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
i5i3h7	190	22	10.3	SubName: Full=Shiga-like toxin 2 subunit A; EC=3.2.2.22;
i5h811	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
i5c6q5	100	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin MazF;
i4z276	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4z247	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4v1c9	111	22	10.3	SubName: Full=Toxin ChpA;
i4usb3	111	22	10.3	SubName: Full=Toxin ChpA;
i4u0a1	111	22	10.3	SubName: Full=Toxin ChpA;
i4tvy5	111	22	10.3	SubName: Full=Toxin ChpA;
i4sng3	111	22	10.3	SubName: Full=Toxin ChpA;
i4sak0	111	22	10.3	SubName: Full=Toxin ChpA;
i4s1a8	111	22	10.3	SubName: Full=Toxin ChpA;
i4rlq4	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
i4rjm7	111	22	10.3	SubName: Full=Toxin MazF;
i4r9d6	111	22	10.3	SubName: Full=Toxin ChpA;

i4r396	111	22	10.3	SubName: Full=Toxin MazF;
i4qp28	111	22	10.3	SubName: Full=Toxin MazF;
i4pmz5	111	22	10.3	SubName: Full=Toxin MazF;
i4pif4	111	22	10.3	SubName: Full=Toxin MazF;
i4pfb7	111	22	10.3	SubName: Full=Toxin MazF;
i4pdg1	111	22	10.3	SubName: Full=Toxin MazF;
i4nda5	122	22	10.3	SubName: Full=CP4-44 prophage YeeV-YeeU toxin-antitoxin syst...
i4mgj3	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4lxd8	126	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i4lw87	126	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i4lag2	126	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i4kv96	419	43	10.3	SubName: Full=Pertussis toxin, subunit 1 domain protein;
i4k1r5	114	22	10.3	SubName: Full=Toxin HigB-2;
i4j1q8	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i4j1a6	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
i4iwi3	87	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4in98	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hzn1	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hwq7	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hn32	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4hdt1	99	22	10.3	SubName: Full=Toxin of the YoeB-YefM toxin-antitoxin system;...
i4h3a8	120	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
i4ggc9	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4ger3	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4g113	99	22	10.3	SubName: Full=Toxin of the YoeB-YefM toxin-antitoxin system;...
i4fzw9	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fyr5	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fru9	99	22	10.3	SubName: Full=Toxin of the YoeB-YefM toxin-antitoxin system;...
i4fmk7	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4fjt2	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4bb01	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b675	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b4a1	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i4b3t7	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zsq4	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zsp6	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3zf48	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ydn1	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3ybz7	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3x162	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3w0c4	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i3g947	190	22	10.3	SubName: Full=Zeta-toxin;
i3fgc4	190	22	10.3	SubName: Full=Zeta-toxin;
i3dru1	123	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i3dm45	101	22	10.3	SubName: Full=Toxin HigB-1;
i3dgb9	81	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i3d9n7	110	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i3au29	178	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
i2zyi2	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2zq96	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2xuh1	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2xnc7	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2xm79	89	22	10.3	SubName: Full=Shiga-like toxin 2 subunit B;
i2xjg4	93	22	10.3	SubName: Full=Toxin RelE;
i2x1c1	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2wyd4	93	22	10.3	SubName: Full=Toxin RelE;
i2wwq3	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2whc4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....

i2wg41	197	22	10.3	SubName: Full=Hemolysin toxin protein A domain protein;
i2wee0	175	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
i2w8d7	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2vru0	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2vlv8	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2vky5	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2v562	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2usz5	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2u1a0	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2tz89	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2tp89	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2tib8	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2t953	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2t3b8	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2svn3	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2siq3	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
i2sbs5	154	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
i2s188	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
i2pk93	154	22	10.3	SubName: Full=Toxin YhaV;
i2pjc4	154	22	10.3	SubName: Full=Toxin YhaV;
i2nt70	84	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
i2nmh5	101	22	10.3	SubName: Full=Toxin HigB-1;
i2n1l9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2n0e5	115	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2ieb8	154	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i2i8f4	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
i2i579	119	22	10.3	SubName: Full=CP4-44 prophage YeeV-YeeU toxin-antitoxin syst...
i2i4m1	111	22	10.3	SubName: Full=Toxin MazF;
i2fc54	207	22	10.3	SubName: Full=Putative cytolethal distending toxin subunit C...
i2ejl5	98	22	10.3	SubName: Full=Putative RelE/ParE family protein, cytotoxic t...
i1zzi0	111	22	10.3	SubName: Full=Toxin ChpA;
i1y667	137	22	10.3	SubName: Full=Zeta toxin;
i1aq31	119	22	10.3	SubName: Full=RelE-like cytotoxic translational repressor of...
i0xqi5	155	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
i0rpu2	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0p2c6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i0nyc1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i0npd1	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
i0n257	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
i0kwg0	114	22	10.3	SubName: Full=Toxin antitoxin genome stability system, pilT ...
i0kv45	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0kbj2	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0i5a5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
i0al63	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h9zml8	88	22	10.3	SubName: Full=SMT0608 replicon stabilization toxin;
h9us79	95	22	10.3	SubName: Full=Toxin relE;
h8z6y2	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z6b2	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z4r9	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z0u1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8z0h4	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8l9u4	87	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component;
h8jv57	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h8j9v5	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ivi4	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8i1j8	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hzw7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hpm9	103	22	10.3	SubName: Full=Toxin;

h8hmm2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8hk82	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8gpb5	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8gmv0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8gie6	89	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Txe/Y...
h8ghf5	369	38	10.3	SubName: Full=Zonula occludens toxin;
h8ez72	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8ewr8	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h8dh42	95	22	10.3	SubName: Full=Stability protein (Toxin);
h8dd53	111	22	10.3	SubName: Full=Toxin MazF;
h8cr45	146	22	10.3	SubName: Full=Cytolethal distending toxin;
h7xby6	137	22	10.3	SubName: Full=Cytolethal distending toxin C;
h7uvu1	170	22	10.3	SubName: Full=Cytolethal distending toxin, subunit CdtC;
h7rsc7	168	22	10.3	SubName: Full=Cytolethal distending toxin subunit A;
h7qla7	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7pxa3	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7phs6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7mkv1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7lw59	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7km02	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7k9u9	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7k1a1	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
h7jx12	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7jqk8	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7jjb5	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7jcp0	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
h7hyj2	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7hha4	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
h7her2	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7h8j6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7gj19	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
h7csg1	132	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h7cek9	82	22	10.3	SubName: Full=Toxin-like peptide;
h6s8k7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6s7y3	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rm60	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rlz3	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rjp4	109	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, PemK ...
h6rbw9	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6rbu7	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6q9k1	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h6q314	134	22	10.3	SubName: Full=Toxin of toxin-antitoxin system;
h6mhs2	111	22	10.3	SubName: Full=Toxin MazF;
h6cgj8	145	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h5xra6	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5xly6	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5v5h2	150	22	10.3	SubName: Full=Toxin-antitoxin biofilm protein TabA;
h5te39	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5sv60	114	22	10.3	SubName: Full=Plasmid maintenance toxin/cell growth inhibito...
h5sr33	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5spt8	120	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5s9w3	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h5rdi1	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5qzd8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5q249	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5pnt1	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5p8c3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5mzf2	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;

h5m5j5	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5lql9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5kxr8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5ki87	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5k2v2	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5j5p2	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5i908	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h5hut9	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h5hcx1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h5gvs5	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5gfg9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5g0t4	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5f3h8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5en78	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5e675	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5d784	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5cqp4	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5c9s9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5buw2	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5be46	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5ayv4	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h5ad10	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4zzl0	128	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4zvu5	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h4zi80	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4yl19	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4y4x3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4xqd3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4x8m3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4wvu1	154	22	10.3	SubName: Full=Toxin YhaV; EC=3.1.-.-;
h4wep0	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4tbj7	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4sw48	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4rzy5	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4rsk2	137	22	10.3	SubName: Full=Toxin B domain protein;
h4rjj3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4r3c9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4qlv0	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4q5d8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4nsp9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4nb18	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4mvk5	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4mnz5	137	22	10.3	SubName: Full=Toxin B domain protein;
h4mfg4	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4m867	171	22	10.3	SubName: Full=Toxin B domain protein;
h4lxd3	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4lg32	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4l1w8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4kl43	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4jr80	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4ivn8	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4ird6	291	30	10.3	SubName: Full=Zonular occludens toxin family protein;
h4if24	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4i097	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h4g774	208	22	10.3	SubName: Full=Toxin, beta-grasp domain protein;
h3z9z4	380	39	10.3	SubName: Full=Zonular occludens toxin;
h3yvw6	193	22	10.3	SubName: Full=Toxin, OB domain protein;
h3y021	193	22	10.3	SubName: Full=Toxin, OB domain protein;

h3uee1	128	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h3twu1	203	22	10.3	SubName: Full=Toxin, beta-grasp domain protein;
h3l348	107	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h3ksx9	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
h2ins1	159	22	10.3	SubName: Full=Toxin with endonuclease activity YhaV;
h2fst2	132	22	10.3	SubName: Full=Putative toxin YafO;
h2cju2	113	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
h1zzi8	82	22	10.3	RecName: Full=Toxin Tpa7; AltName: Full=T-beta* NaTx1.3; Fla...
h1z225	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1y7g0	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1xp61	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1wet5	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1w6e6	107	22	10.3	SubName: Full=Putative toxin of toxin-antitoxin stability sy...
h1upc0	128	22	10.3	SubName: Full=Toxin-antitoxin systems HicB;
h1ujw7	128	22	10.3	SubName: Full=Toxin-antitoxin systems HicB;
h1tpe4	281	29	10.3	SubName: Full=Exfoliative toxin B; EC=3.4.21.-;
h1ptp5	149	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h1nq80	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h1lvy2	86	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
h1lvs8	67	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
h1lm32	153	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1lib1	139	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1lcc7	138	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
h1g8d6	113	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
h1g7i6	85	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
h1fdm0	154	22	10.3	SubName: Full=Toxin YhaV;
h1f807	154	22	10.3	SubName: Full=Toxin YhaV;
h1ee31	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
h1cug5	133	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h1cma2	131	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h1b7t1	122	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
h0tt24	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0tlw6	126	22	10.3	SubName: Full=RelE-like Cytotoxic translational repressor of...
h0sf43	574	59	10.3	SubName: Full=Putative secretion ATP-binding protein (ABC-ty...
h0q807	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
h0q686	99	22	10.3	SubName: Full=CcdB-like toxin protein;
h0kv10	98	22	10.3	SubName: Full=Addiction module toxin, rele/stbe family prote...
h0htp0	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0hhc7	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0ga11	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0g0x1	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
h0er47	188	22	10.3	SubName: Full=Putative HC-toxin efflux carrier TOXA;
h0eck9	368	38	10.3	SubName: Full=Putative HC-toxin efflux carrier TOXA;
g9zjb5	131	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
g9z618	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g9ysf6	95	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9y792	126	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
g9xtm8	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
g9xnt9	101	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g9wiy3	118	22	10.3	SubName: Full=PemK family toxin;
g9rm69	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g9peg6	88	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
g9ebl2	118	22	10.3	SubName: Full=Toxin higB-2;
g9arg1	148	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
g8wie4	108	22	10.3	SubName: Full=Putative antitoxin module of toxin-antitoxin s...
g8v567	281	29	10.3	SubName: Full=Exfoliative toxin B; EC=3.4.21.-;
g8nyx8	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8m9z5	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

g8m5d2	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g8lqb2	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7wp02	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7wk84	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7tmz6	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g7tep4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7sjg7	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
g7s8x8	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
g7s2k9	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
g7rvv3	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
g7qzk1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qvt7	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7qe86	107	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g7qbl1	112	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g7hc39	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g7gze4	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6z4q0	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
g6yrr3	105	22	10.3	SubName: Full=CcdB-like toxin protein;
g6xn87	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6wl11	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6v9e0	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6uzp6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6utc0	87	22	10.3	SubName: Full=Toxin-like protein;
g6sx15	87	22	10.3	SubName: Full=Toxin-like protein;
g6sgr9	87	22	10.3	SubName: Full=Toxin-like protein;
g6sen9	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6sac1	87	22	10.3	SubName: Full=Toxin-like protein;
g6s7r9	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6s538	87	22	10.3	SubName: Full=Toxin-like protein;
g6rqs5	87	22	10.3	SubName: Full=Toxin-like protein;
g6rj48	87	22	10.3	SubName: Full=Toxin-like protein;
g6r6b2	87	22	10.3	SubName: Full=Toxin-like protein;
g6r467	87	22	10.3	SubName: Full=Toxin-like protein;
g6pvu7	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6p5f2	87	22	10.3	SubName: Full=Toxin-like protein;
g6nyq2	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6ned4	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6n1d1	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6mhr8	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6mbj6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6m6h8	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6lyg5	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6lre8	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6lnx6	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6ljj9	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6l125	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6ku22	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6kh53	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6ka35	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6jkd4	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6je87	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
g6je69	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6jby7	138	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
g6j110	87	22	10.3	SubName: Full=Toxin-like protein;
g6hc91	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g6gpc6	100	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
g6e6g6	358	37	10.3	SubName: Full=Zonular occludens toxin;
g6e6f5	310	32	10.3	SubName: Full=Zonular occludens toxin;

g6bj11	149	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g6b9g5	149	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g5ylg1	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5y7j2	154	22	10.3	SubName: Full=Toxin YhaV;
g5y6r8	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5y1v7	154	22	10.3	SubName: Full=Toxin YhaV;
g5xs23	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5xhs3	154	22	10.3	SubName: Full=Toxin YhaV;
g5xck0	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5wz30	154	22	10.3	SubName: Full=Toxin YhaV;
g5wxy2	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5wj30	154	22	10.3	SubName: Full=Toxin YhaV;
g5wib1	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5waw4	154	22	10.3	SubName: Full=Toxin YhaV;
g5w3l9	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5vua6	154	22	10.3	SubName: Full=Toxin YhaV;
g5vp08	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5vek3	154	22	10.3	SubName: Full=Toxin YhaV;
g5v093	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5uwq7	154	22	10.3	SubName: Full=Toxin YhaV;
g5ud85	154	22	10.3	SubName: Full=Toxin YhaV;
g5u2t4	154	22	10.3	SubName: Full=Toxin YhaV;
g5trk7	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5tmh5	154	22	10.3	SubName: Full=Toxin YhaV;
g5tby3	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g5m7x3	61	22	10.3	SubName: Full=VapC toxin protein;
g5kri9	111	22	10.3	SubName: Full=Toxin ChpA;
g5jmk6	92	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
g5j1g5	206	22	10.3	SubName: Full=Insecticidal toxin complex-like protein;
g4syz8	98	22	10.3	SubName: Full=Toxin, ParE-ParD toxin-antitoxin system;
g4q029	111	22	10.3	SubName: Full=mRNA interferase toxin, antitoxin is MazE;
g4i456	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4fkr9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dmh9	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dkt7	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4dfe4	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g4ckr3	95	22	10.3	SubName: Full=RelE-RelB toxin-antitoxin system and transcrip...
g3j1e7	106	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g3can5	93	22	10.3	SubName: Full=StbE toxin/antitoxin stability protein;
g2uvj0	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2us66	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2tgj6	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2n8v6	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2mz40	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2jbh2	109	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g2jbg4	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2ja70	93	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
g2gwr4	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2glz4	145	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
g2gla4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2f9y6	95	22	10.3	SubName: Full=Toxin component RelE;
g2f080	111	22	10.3	SubName: Full=Toxin MazF;
g2e8j3	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2e4m5	146	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g2bz13	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
g0z026	203	22	10.3	SubName: Full=Enterotoxin-like toxin X;
g0tq88	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0tir9	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

g0spl0	166	22	10.3	SubName: Full=Cholera toxin secretion protein EpsM;
g0lma5	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0llx9	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jpf4	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0jnx1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hm85	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0hm22	153	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
g0fda1	87	22	10.3	SubName: Full=Shiga-like toxin 2e subunit B;
g0eue4	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zy53	90	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f9zvh8	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9zcu0	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9xw44	273	28	10.3	SubName: Full=Cytolethal distending toxin A;
f9xuy0	233	24	10.3	SubName: Full=Cytolethal distending toxin A;
f9v098	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9uxz8	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9u846	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f9r638	95	22	10.3	SubName: Full=Toxin component RelE;
f9r0g7	111	22	10.3	SubName: Full=Toxin MazF;
f9pfs0	138	22	10.3	SubName: Full=Zeta toxin domain protein;
f9p0y1	253	26	10.3	SubName: Full=Zeta toxin;
f9l4f2	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
f9jgk4	145	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f9hyf8	154	22	10.3	SubName: Full=Toxin YhaV; SubName: Full=Uncharacterized prot...
f9hhn2	84	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
f9d395	87	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Txe/Y...
f9clh9	111	22	10.3	SubName: Full=Toxin MazF;
f8yq34	142	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f8yjg9	111	22	10.3	SubName: Full=Toxin MazF;
f8xi23	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f8xbc7	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f8xaf8	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f8x938	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f8x7f0	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
f8vfw1	141	22	10.3	SubName: Full=Putative pertussis-like toxin;
f8m7j4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8m2h9	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8lrl5	84	22	10.3	SubName: Full=Toxin yoeB; EC=3.1.-.-;
f8gxj7	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8gwm8	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8gfz2	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8dey9	84	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
f8d5a6	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8d2s3	183	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f8b6p5	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8b2x4	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f8ahw6	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7yed5	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7y7b3	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7y636	88	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f7x551	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7x2y9	121	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wry7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wri0	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wn59	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7wn15	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7tfm7	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f7pl25	124	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

f7ncd5	89	22	10.3	SubName: Full=RTX toxin Ca2+-binding protein;
f7mip7	96	22	10.3	SubName: Full=Txe/YoeB family addiction module toxin;
f6xsj9	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 2; Su...
f6ica0	106	22	10.3	SubName: Full=RelE-like cytotoxic translational repressor of...
f6fxl1	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6fq05	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6f0p4	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dyn4	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6dpg0	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
f6cq20	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6cq16	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6btn2	121	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bpn8	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f6bm53	92	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f6bjm6	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5yzz0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5yn52	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5ymb7	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5ykn6	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xzn6	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xtq5	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5xej5	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5w4w9	281	29	10.3	SubName: Full=Exfoliative toxin B; EC=3.4.21.-;
f5t858	148	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f5t7i0	98	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
f5s5f3	116	22	10.3	SubName: Full=RTX prokaryotic toxin family protein;
f5rvc4	85	22	10.3	SubName: Full=CP4-6 prophage; antitoxin of the YkfI-YafW tox...
f5rt91	173	22	10.3	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
f5rqp5	192	22	10.3	SubName: Full=PIN family toxin-antitoxin system;
f5rpj8	139	22	10.3	SubName: Full=HicB family toxin-antitoxin system;
f5re59	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5lmi1	108	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
f5jd85	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f5imu2	134	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f5cpd8	81	22	10.3	RecName: Full=Three finger toxin MALT0057C; AltName: Full=MA...
f5cpd6	83	22	10.3	RecName: Full=Three finger toxin MALT0052C; AltName: Full=MA...
f4w3e1	138	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f4w116	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4w024	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4vr82	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4vkc2	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4vjd3	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4vhy2	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4vdw8	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4v7h6	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4uu50	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4ut41	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4us64	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4umx4	95	22	10.3	SubName: Full=Toxin RelE;
f4umc6	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4ufa3	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4txn5	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4tpk2	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4tlq3	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
f4tlk4	175	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f4tk47	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4tjh0	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4tg94	95	22	10.3	SubName: Full=Toxin RelE;

f4t8q4	116	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4t3f3	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4suv2	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f4sp46	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f4sj87	95	22	10.3	SubName: Full=Toxin RelE;
f4njf2	111	22	10.3	SubName: Full=Toxin ChpA;
f4lt94	96	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family; SubN...
f4lii1	85	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f4kw89	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4h7a4	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4gkm1	88	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f4egm1	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
f4c6i7	152	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4c018	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family (Plas...
f4bxz1	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f4b4t2	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3xmz2	149	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f3x9y6	87	22	10.3	SubName: Full=Toxin-like protein;
f3w709	87	22	10.3	SubName: Full=Toxin-like protein;
f3sq63	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
f3sfm1	154	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f3r5y8	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f3qk26	141	22	10.3	SubName: Full=Toxin-antitoxin system toxin component, PIN fa...
f3q871	176	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3q5n4	172	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
f3pzg9	101	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
f3p7s6	89	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
f3p363	77	22	10.3	SubName: Full=Putative toxin;
f3mju4	169	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3m733	169	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f3lgk1	406	42	10.3	SubName: Full=Zona occludens toxin;
f2vbn4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v9q4	103	22	10.3	SubName: Full=Toxin;
f2v4n2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2v1v3	93	22	10.3	SubName: Full=Toxin;
f2v0n6	86	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
f2ux41	103	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
f2r4v7	130	22	10.3	SubName: Full=Death on curing protein, Doc toxin;
f2lrv3	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2lq48	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2l5p7	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2i7x4	131	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
f2gmp4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2gef3	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f2g753	98	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family prote...
f2g457	115	22	10.3	SubName: Full=RelE-like Cytotoxic translational repressor of...
f2g3n1	112	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f2a9c2	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f1y4x5	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
f1xv99	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
f1vc03	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
f1ug22	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
f1uap3	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f1tvv1	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
f1pyq1	211	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
f1lfi2	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 1;
f0rkp5	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0pgb8	185	22	10.3	SubName: Full=Zeta toxin family protein;

f0nns0	119	22	10.3	SubName: Full=VapC-type toxin;
f0njq6	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0ngi2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0ndv8	119	22	10.3	SubName: Full=VapC-type toxin;
f0liw3	155	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0jy44	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
f0jpu0	68	22	10.3	SubName: Full=Putative antitoxin of gyrase inhibiting toxin-...
f0hmh4	120	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
f0h0j1	183	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
f0dq40	178	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
f0df41	147	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
f0d5w4	147	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
f0c3b3	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0bkg7	388	40	10.3	SubName: Full=Zonular occludens toxin (Zot);
f0bfe5	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
f0adp0	390	40	10.3	SubName: Full=Zonula occludens toxin family protein;
e9zph7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zl45	105	22	10.3	SubName: Full=Toxin protein;
e9zhn0	103	22	10.3	SubName: Full=Toxin protein;
e9zg48	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9zfp7	93	22	10.3	SubName: Full=Toxin protein;
e9v2e5	112	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e9uwd5	194	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e9uuc1	133	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e9ur64	129	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9up64	108	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e9unm2	281	29	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9ujc7	96	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9uhz2	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9ucg7	100	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e9u3v7	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9u3j8	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e9tzn2	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9tys3	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9tur7	195	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
e9tpt3	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9tml0	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e9tlk1	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e9tgz1	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9tfz4	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e9tbd5	116	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9t920	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e9sms4	158	22	10.3	SubName: Full=Xre family Toxin-antitoxin system;
e9rmg2	149	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e9lul4	107	22	10.3	SubName: Full=Xre family toxin-antitoxin system;
e9dp67	92	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e9cmx6	160	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e9cm08	111	22	10.3	SubName: Full=Putative prophage antitoxin of the YpjF-YfjZ t...
e8ya11	145	22	10.3	SubName: Full=Antitoxin for the HicAB toxin-antitoxin system...
e8y8f8	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family; SubN...
e8y7f9	111	22	10.3	SubName: Full=Toxin MazF; SubName: Full=Transcriptional modu...
e8y2y9	113	22	10.3	SubName: Full=CP4-6 prophage, toxin of the YkfI-YafW toxin-a...
e8x3p4	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8x233	89	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
e8w560	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8v874	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8v4k7	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8um83	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...

e8snl2	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8rt17	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8plt6	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e8nn69	147	22	10.3	SubName: Full=Putative shiga-like toxin A subunit;
e8nej6	90	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
e8lkd6	196	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e8jj02	174	22	10.3	SubName: Full=GNAT family toxin-antitoxin system;
e8j579	111	22	10.3	SubName: Full=Toxin MazF;
e8iqn4	111	22	10.3	SubName: Full=Toxin MazF;
e8ict8	111	22	10.3	SubName: Full=Toxin MazF;
e8h681	111	22	10.3	SubName: Full=Toxin MazF;
e7ukv4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7u826	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
e7tvr3	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
e7thx4	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
e7spy9	111	22	10.3	SubName: Full=Programmed cell death toxin MazF;
e7ns13	102	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e7n1y0	99	22	10.3	SubName: Full=Putative toxin-antitoxin system protein;
e7h9l7	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
e7gl84	158	22	10.3	SubName: Full=Xre family Toxin-antitoxin system;
e6x2c2	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6vqk3	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6vpr7	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6tgl2	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6si92	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6sg67	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6qlu0	101	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e6q9x5	80	22	10.3	SubName: Full=Putative antitoxin of toxin-antitoxin stabilit...
e6lku2	75	22	10.3	SubName: Full=PIN family toxin-antitoxin system;
e6kum0	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e6ia74	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6i7t3	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6hs35	133	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6hpa2	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6hmr1	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6hbu9	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6h4m6	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6gwj3	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6g835	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6fij5	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6fgm9	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6f869	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6f3j6	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6f2j1	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6ey09	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e6e566	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e6crq2	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6bqi8	193	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e6bip5	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e6bfz9	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e6bfi2	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6avh9	95	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6ar69	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6apq4	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6al60	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e6aih2	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6a885	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e6a7l0	195	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...

e6a5u7	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e6a3p0	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e5znk4	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e5zm26	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e5sxz0	212	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e5rm96	190	22	10.3	SubName: Full=Cytolethal distending toxin C;
e5rm89	190	22	10.3	SubName: Full=Cytolethal distending toxin C;
e5rm79	190	22	10.3	SubName: Full=Cytolethal distending toxin C;
e5r8h0	242	25	10.3	SubName: Full=Staphylococcal/Streptococcal toxin, beta-grasp...
e5l769	95	22	10.3	SubName: Full=Toxin component RelE;
e5cs95	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
e5aqf5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4vl67	181	22	10.3	SubName: Full=Cytolethal distending toxin A/C family protein...
e4s6a5	110	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e4r4d8	115	22	10.3	SubName: Full=Toxin ChpB;
e4qwh2	134	22	10.3	RecName: Full=Ribonuclease VapC1; Short=RNase VapC1; EC=3.1....
e4p5d0	111	22	10.3	SubName: Full=Toxin ChpA;
e4n941	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e4lnc9	134	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4ln89	88	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
e4lkm0	114	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4ljy9	138	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e4lje4	301	31	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
e4jlc6	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e4jgq8	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4jb34	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4j822	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e4j3i8	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e4j137	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4irp9	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4ij43	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4iej5	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e4id33	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e4i5s7	142	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e4hn35	77	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
e4hh70	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e4ek51	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e4eez1	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4ed54	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e4ec23	88	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e4eal2	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e4bie8	77	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
e4bdg6	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e4af29	77	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
e4aaz9	69	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
e3ypt7	177	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, gnat ...
e3rbu5	126	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e3ra86	101	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e3r8w7	112	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e3gsb0	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3gie0	176	22	10.3	SubName: Full=Toxin-antitoxin system;
e3egs2	148	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e3dce5	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e3daq5	109	22	10.3	SubName: Full=Toxin-antitoxin system;
e3dan9	101	22	10.3	SubName: Full=Toxin-antitoxin system;
e3daj3	117	22	10.3	SubName: Full=HicA family toxin-antitoxin system;
e3cwe2	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2zmx8	102	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

e2zg98	93	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e2z4w7	134	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e2z0x7	121	22	10.3	SubName: Full=PemK family transcriptional regulator; SubName...
e2ypv0	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e2ygk9	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e2y8u8	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e2wja2	105	22	10.3	SubName: Full=Toxin;
e2wfx3	103	22	10.3	SubName: Full=Toxin;
e2weg2	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2we15	93	22	10.3	SubName: Full=Toxin;
e2wah6	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w3y7	103	22	10.3	SubName: Full=Toxin;
e2w2i1	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2w239	93	22	10.3	SubName: Full=Toxin;
e2vza0	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vsp0	103	22	10.3	SubName: Full=Toxin;
e2vr79	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vqx7	93	22	10.3	SubName: Full=Toxin;
e2vmq7	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vge7	103	22	10.3	SubName: Full=Toxin;
e2vf67	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vf31	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2vei7	93	22	10.3	SubName: Full=Toxin;
e2vdp0	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v752	103	22	10.3	SubName: Full=Toxin;
e2v5u8	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v5m2	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2v2h8	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uvv6	103	22	10.3	SubName: Full=Toxin;
e2uuk4	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uue4	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2utz8	93	22	10.3	SubName: Full=Toxin;
e2ur79	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ujq5	103	22	10.3	SubName: Full=Toxin;
e2uif7	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ui98	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2uhv8	93	22	10.3	SubName: Full=Toxin;
e2uf72	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ud76	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2ud21	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2u3b1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2twr7	103	22	10.3	SubName: Full=Toxin;
e2tvh6	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tvc2	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tuz8	93	22	10.3	SubName: Full=Toxin;
e2trw2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tk60	103	22	10.3	SubName: Full=Toxin;
e2tix7	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tin5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tia6	93	22	10.3	SubName: Full=Toxin;
e2tgm5	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2tec5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2te73	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2t8g4	93	22	10.3	SubName: Full=Toxin;
e2t414	99	22	10.3	SubName: Full=Toxin-antitoxin system;
e2sut3	118	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
e2sth4	170	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e2ss64	211	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...

e2sjb7	86	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e2n2z7	98	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
e2mn67	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e2itz2	86	22	10.3	SubName: Full=Three-finger toxin;
e2csa6	137	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e2cr48	84	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e2cc90	123	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e2cc89	158	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e2cb56	135	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1ywt3	104	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e1ynm6	123	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
e1yjh3	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1ya86	104	22	10.3	SubName: Full=Toxin higB-2;
e1vkv0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1vis5	104	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system ...
e1s0e8	111	22	10.3	SubName: Full=Toxin ChpA;
e1mfk7	110	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
e1me94	111	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1mc87	90	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1lbb7	134	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1l039	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1jks7	123	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e1jcy6	193	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1jca4	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1j8a4	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1j0j4	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1iu02	100	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e1iql7	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1ipl2	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1imh7	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1img5	193	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
e1il80	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1idi3	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1id67	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1icx3	102	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
e1i9e4	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1i734	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1i026	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hz72	95	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hy61	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
e1hxg4	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1ht07	95	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
e1hrv5	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
e1hle3	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e1heg6	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h7w5	103	22	10.3	SubName: Full=Toxin;
e1h6g4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e1h622	93	22	10.3	SubName: Full=Toxin;
e1gta4	97	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
e0wrr7	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0unn0	93	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
e0ug96	149	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0te25	163	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0sjl3	104	22	10.3	SubName: Full=Putative toxin of gyrase inhibiting toxin-anti...
e0qv03	111	22	10.3	SubName: Full=Toxin ChpA;
e0n4s4	119	22	10.3	SubName: Full=HipA family toxin-antitoxin system;
e0j2c8	113	22	10.3	SubName: Full=CP4-6 prophage toxin of the YkfI-YafW toxin-an...
e0j223	111	22	10.3	SubName: Full=Toxin MazF; SubName: Full=Toxin of the ChpA-Ch...

e0ix01	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family; SubN...
e0ivm5	145	22	10.3	SubName: Full=Antitoxin for the HicAB toxin-antitoxin system...
e0h8x2	102	22	10.3	SubName: Full=Zeta toxin;
e0h887	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e0h4j5	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e0gxu0	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e0gk40	143	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
e0gcf2	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
e0flw6	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0ffv5	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0fd11	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0f0k3	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0el55	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0ejj7	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0eat4	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
e0e214	135	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
e0e1h5	104	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9yi13	210	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d9ydc8	137	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d9y1f2	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9xs15	128	22	10.3	SubName: Full=RelE family toxin-antitoxin system, toxin comp...
d9wtc5	87	22	10.3	SubName: Full=PHD family toxin-antitoxin system, antitoxin c...
d9wbk1	79	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d9w856	291	30	10.3	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d9vsh6	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9uxx2	157	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9sgm8	72	22	10.3	SubName: Full=RelE-like cytotoxic translational repressor of...
d9r647	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
d9qma2	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d9pqq9	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d8utx1	167	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d8k2l7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8iu60	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d8hfp3	234	24	10.3	SubName: Full=Toxic shock syndrome toxin-1;
d8fzy1	106	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB;
d8fbp2	84	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8f927	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8f5p8	122	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
d8ezd7	166	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8eqc1	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8enf5	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8ejx0	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8ei93	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8eg00	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8e9b2	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8e9a1	193	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8e7u4	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8e527	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8e1r4	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8e174	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8cgu2	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8ce75	195	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d8cdj7	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8ccm8	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8c6i7	128	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8bzf1	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8bz58	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8bqa9	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...

d8bpy6	100	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8bkg0	195	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d8bhw6	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8bdt3	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8bcv7	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8bai6	93	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8b7d4	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8b6y9	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8ayv4	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8asu0	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d8arc8	116	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8al83	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8ahx8	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8ad25	128	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d8abm1	214	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d8a8r9	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d8a4m3	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d8a4f1	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d8a488	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7zzi2	106	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7zxe3	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7zuz7	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d7zre4	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7zmp8	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7zjj2	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d7zaw9	93	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7z2x5	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d7z2b1	195	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d7yyc5	136	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7yt50	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7yqc4	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7ymi9	100	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7ylr5	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7yi89	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d7yfz2	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7yc48	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7yaz5	107	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
d7y8u5	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7y2h7	115	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component domain...
d7y0g4	145	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7xzd3	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7xw32	119	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d7xu98	111	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d7xrl9	154	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7xgg4	193	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d7xct1	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d7wbt2	90	22	10.3	SubName: Full=Fic family toxin-antitoxin system;
d7jzj3	132	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d7j5m9	331	34	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d7j194	104	22	10.3	SubName: Full=Toxin-antitoxin system toxin component;
d7in13	110	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d7hlb2	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
d7hjn8	399	41	10.3	SubName: Full=Zona occludens toxin;
d7gkr3	138	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d7ew77	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7en71	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cx12	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d7cja3	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d7ark2	202	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d7a661	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6ztx4	118	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d6zts1	107	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d6sv50	93	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
d6srt7	108	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d6lfy6	127	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d6lel9	132	22	10.3	SubName: Full=Toxin-antitoxin system toxin component;
d6lbn3	105	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
d6kpq8	136	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d6kgw5	76	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component;
d6kdy7	204	22	10.3	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d6kch6	168	22	10.3	SubName: Full=GNAT family toxin-antitoxin system, toxin comp...
d6k284	123	22	10.3	SubName: Full=Fic family toxin-antitoxin system, toxin compo...
d6k001	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6idb1	132	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d6icl3	111	22	10.3	SubName: Full=ChpA toxin ChpA;
d6h8d9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fxs8	93	22	10.3	SubName: Full=Toxin;
d6fx78	105	22	10.3	SubName: Full=Toxin;
d6fvi7	170	22	10.3	SubName: Full=Toxin;
d6fsa3	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fqf0	103	22	10.3	SubName: Full=Toxin;
d6fma7	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6flx5	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6fih4	105	22	10.3	SubName: Full=Toxin;
d6fa03	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6f351	103	22	10.3	SubName: Full=Toxin;
d6f1k5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6cki9	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6b8r3	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6agd7	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d6acq3	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zm49	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5zcy4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z8p8	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5z0h5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yx21	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5ynp6	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yk33	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5yct7	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y910	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y178	104	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5y0r9	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xza2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5xqm1	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5wlr4	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5v8k5	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5v5y5	151	22	10.3	SubName: Full=RTX toxin-activating protein C;
d5qrl1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5p4e5	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5mjj4	93	22	10.3	SubName: Full=Toxin higB-1;
d5ktk6	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d5j9p2	85	22	10.3	SubName: Full=Short-chain three finger toxin isoform 5;
d5j6x4	84	22	10.3	SubName: Full=Putative mature peptide toxin-like GVDKE;
d5j6x1	84	22	10.3	SubName: Full=Putative mature peptide toxin-like GVDKE;
d5aix4	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
d4z593	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

d4ylg4	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d4xe89	119	22	10.3	SubName: Full=PIN family toxin-antitoxin system;
d4v5e5	130	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
d4v0j0	121	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d4s2a2	109	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4rns0	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
d4lji9	83	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
d4hqe7	101	22	10.3	SubName: Full=CcdB toxin protein; SubName: Full=Cytotoxic pr...
d4ewz4	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
d4erv0	103	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4eq01	103	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4emb9	155	22	10.3	SubName: Full=Toxin secretion/phage lysis holin family prote...
d4e325	186	22	10.3	SubName: Full=GNAT family toxin-antitoxin system;
d4cbs6	243	25	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4btw9	152	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d4bse3	137	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d4bkx5	119	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d4bes1	100	22	10.3	SubName: Full=Toxin-antitoxin system protein;
d4b9m0	174	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d4b9l6	138	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3vak7	153	22	10.3	SubName: Full=RTX toxin activating protein;
d3rzm8	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3ryz9	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3qzd1	95	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d3ptk4	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3pq29	148	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3p802	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3l4n1	144	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3kzz5	155	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d3kzx5	148	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3kzx4	120	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3ij14	104	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d3gsl9	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
d3f539	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d3arf5	125	22	10.3	SubName: Full=Toxin-antitoxin system protein;
d3ajd1	180	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
d3afc7	192	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d3aan4	242	25	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d2z5t6	90	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
d2yk17	150	22	10.3	SubName: Full=Toxin coregulated pilus biosynthesis protein Q...
d2wfk4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
d2u0u0	112	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2s8d9	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2s6n5	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2rf40	119	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
d2qtp6	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2pvk8	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d2mqv1	139	22	10.3	SubName: Full=Cytolethal distending toxin;
d2mpm0	122	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
d2er24	118	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
d2epp0	107	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d2buz5	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
d2afn9	95	22	10.3	SubName: Full=Toxin relE;
d1ypd5	132	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
d1yj49	130	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d1vv28	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1vsf8	138	22	10.3	SubName: Full=Putative unspecified toxin/drug ABC transporte...
d1ty33	148	22	10.3	SubName: Full=Toxin-antitoxin system antitoxin component, TI...

d1qpx5	145	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
d1pvg0	92	22	10.3	SubName: Full=Xre family toxin-antitoxin system;
d1pru1	102	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
d1pr97	152	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
d1pla8	161	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
d1p807	83	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, P...
d1p6y6	153	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d1nzv4	181	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
d1nzj5	138	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1jdx3	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1jaa1	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1ef38	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1e8n2	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1e2c1	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1dvl3	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1dnp6	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1diu5	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1bs64	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d1ahb3	135	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
d0yv40	90	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
d0ysg2	111	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d0yru7	141	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, M...
d0yqq5	428	44	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
d0wlb9	122	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
d0wgu7	103	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d0wgs0	122	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
d0kqu4	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
d0hzn6	117	22	10.3	SubName: Full=Programmed cell death toxin MazF;
d0h269	203	22	10.3	SubName: Full=Cytolysin and hemolysin HlyA Pore-forming toxi...
d0fwh3	426	44	10.3	SubName: Full=Botulinum toxin-like protein;
d0bk76	91	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, r...
c9y4k3	124	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9rp37	105	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
c9r099	111	22	10.3	SubName: Full=PemK-like protein 1; SubName: Full=Transcripti...
c9qv21	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family; SubN...
c9n133	370	38	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c9mum7	89	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
c9mja1	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c9lxt1	114	22	10.3	SubName: Full=DNA polymerase beta domain protein region; Sub...
c9lxq4	138	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
c9lx72	90	22	10.3	SubName: Full=Addiction module antitoxin, RelB/DinJ family; ...
c9kj82	132	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c9cd97	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
c9bnr8	139	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
c9ber6	224	23	10.3	SubName: Full=Zeta toxin;
c8uez0	111	22	10.3	SubName: Full=Toxin ChpA;
c8uab4	111	22	10.3	SubName: Full=Toxin ChpA;
c8trv2	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
c8tg29	111	22	10.3	SubName: Full=Toxin ChpA;
c8tah9	172	22	10.3	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
c8t9x4	176	22	10.3	SubName: Full=GNAT family toxin-antitoxin system; EC=2.3.1.-...
c8s4q1	105	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8pxw4	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c8pc52	119	22	10.3	SubName: Full=Xre family toxin-antitoxin system;
c8p483	124	22	10.3	SubName: Full=MazF family toxin-antitoxin system;
c8nbi1	101	22	10.3	SubName: Full=RelE family toxin-antitoxin system, toxin comp...
c8n9v5	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c7l532	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;

c7kva6	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7kkz3	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7kbm7	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7k2f8	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7jzp0	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7jqh5	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7jeb7	128	22	10.3	SubName: Full=Toxin-antitoxin systems (TAS) HicB;
c7h8b7	106	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
c7h291	106	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
c7h0i0	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c7gbd8	139	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, PIN f...
c7g9w0	161	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
c7g878	111	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c6yev7	150	22	10.3	SubName: Full=Toxin-coregulated pilus biosynthesis protein Q...
c6w2q9	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6vy53	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6us99	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
c6ucq6	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
c6s836	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6m782	95	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, A...
c6li77	130	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
c6lg42	132	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
c6gu56	89	22	10.3	SubName: Full=Putative plasmid addiction system, toxin prote...
c6grd1	89	22	10.3	SubName: Full=Putative plasmid addiction system, toxin prote...
c6evh0	158	22	10.3	SubName: Full=Type III phospholipase A2 toxin 2;
c6evg9	147	22	10.3	SubName: Full=Type III phospholipase A2 toxin 1;
c6ej90	111	22	10.3	SubName: Full=MazF toxin of the MazF-MazE toxin-antitoxin sy...
c6ees5	145	22	10.3	SubName: Full=Antitoxin of the HicA-HicB toxin-antitoxin sys...
c6ec99	150	22	10.3	SubName: Full=Putative uncharacterized protein yjgK; SubName...
c6dv60	103	22	10.3	SubName: Full=Toxin;
c6dtx2	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6dt36	93	22	10.3	SubName: Full=Toxin;
c6dp01	105	22	10.3	SubName: Full=Toxin;
c6dlt1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6cy34	131	22	10.3	SubName: Full=Toxin secretion/phage lysis holin; Flags: Prec...
c6cli5	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c6b4a0	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c5vv18	89	22	10.3	SubName: Full=Putative plasmid addiction system, toxin prote...
c5j895	98	22	10.3	RecName: Full=Venom toxin OcyC11; Short=VTX; Flags: Precurso...
c4zzt5	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
c4zwy0	95	22	10.3	SubName: Full=Qin prophage; toxin of the RelE-RelB toxin-ant...
c4wd96	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
c4lcd2	87	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
c4k9a0	141	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4k569	108	22	10.3	SubName: Full=Addiction module toxin;
c4f477	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c4ez44	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3wvr6	130	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
c3pv50	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c3nt68	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3m8d3	115	22	10.3	SubName: Full=Addiction module, toxin;
c3lt81	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c3ks17	142	22	10.3	SubName: Full=Toxin complex component ORF-X1;
c2jcf4	97	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
c2ja20	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2iq07	97	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
c2igm7	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
c2ide8	97	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...

c2i0t5	97	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
c2enm2	104	22	10.3	SubName: Full=Addiction module toxin;
c1j8c4	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
c1iuw9	95	22	10.3	SubName: Full=RelE/StbE family addiction module toxin;
c1ic49	86	22	10.3	RecName: Full=Three finger toxin Wa-V; Flags: Precursor;
c1hxd9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1hj06	111	22	10.3	SubName: Full=Toxin ChpA;
c1b6n0	93	22	10.3	SubName: Full=Putative toxin;
c1aks8	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c1ahm1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0z048	149	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
c0qsi3	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0k3n3	144	22	10.3	RecName: Full=Snake venom vascular endothelial growth factor...
c0gk85	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
c0bbe4	85	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, HicA ...
b9m239	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9k3h7	143	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9jli5	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b9csz9	133	22	10.3	RecName: Full=HTH-type transcriptional regulator rot; AltNam...
b9bcb1	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8xh10	81	22	10.3	SubName: Full=Putative depressant toxin Tx354;
b8xh09	86	22	10.3	SubName: Full=Putative depressant toxin Tx273;
b8xgy5	85	22	10.3	SubName: Full=Putative alpha toxin Tx222;
b8ii21	119	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b8hqv9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8hlq3	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8h0p1	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8gts0	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b8gng2	88	22	10.3	SubName: Full=Toxin-like protein;
b8fb06	98	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
b8f3x6	87	22	10.3	SubName: Full=Prevent-host-death family protein, antitoxin o...
b8efr1	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
b7wuk1	290	30	10.3	SubName: Full=Zonular occludens toxin;
b7uhj8	111	22	10.3	SubName: Full=Toxin ChpA of the ChpA-ChpR toxin-antitoxin sy...
b7tgy5	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgx5	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7tgx0	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b7r3g2	122	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7r152	126	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7nv72	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b7mzx7	122	22	10.3	SubName: Full=Antitoxin of the YeeV-YeeU toxin-antitoxin sys...
b7mz78	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b7mla3	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b7lzu7	95	22	10.3	SubName: Full=Toxin of the RelE-RelB toxin-antitoxin system;...
b7lxj8	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b7lif2	95	22	10.3	SubName: Full=Stability protein (Toxin);
b7lej9	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b7kh36	145	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b7jxj0	93	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
b7gss5	107	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b7a6q9	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b6dd35	87	22	10.3	RecName: Full=U14-lycotoxin-Ls1a; AltName: Full=Toxin-like s...
b6dcw5	78	22	10.3	RecName: Full=U7-lycotoxin-Ls1f; AltName: Full=Toxin-like st...
b5w4k0	107	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
b5w282	147	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5inf2	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5hni6	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b5he75	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

b5ecs5	128	22	10.3	SubName: Full=Toxin YhaV, RelE family;
b5bdu3	143	22	10.3	SubName: Full=Putative shiga-like toxin A subunit;
b4wcu8	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4w041	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4tly0	95	22	10.3	SubName: Full=Toxin RelE;
b4sg19	109	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4s3l7	130	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4eit7	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b4egu9	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3xnc6	144	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
b3xl46	124	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b3wkd0	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b3rc06	120	22	10.3	SubName: Full=Toxin of a toxin-antitoxin system, endoribonuc...
b3ql13	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3qjt1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3jnf0	136	22	10.3	SubName: Full=Putative toxin-antitoxin system toxin componen...
b3ii91	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b3i868	133	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
b3h188	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b3chz3	67	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
b2zba3	81	22	10.3	SubName: Full=HW17g3 toxin-like;
b2vji8	107	22	10.3	SubName: Full=CcdB-like toxin protein;
b2sva6	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2ilc0	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b2ijy9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1yww0	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1xf31	95	22	10.3	SubName: Full=Qin prophage; toxin of the RelE-RelB toxin-ant...
b1xdj2	111	22	10.3	SubName: Full=Toxin of the ChpA-ChpR toxin-antitoxin system,...
b1wqw2	102	22	10.3	SubName: Full=Putative addiction module toxin, Txe/YoeB;
b1wnr9	115	22	10.3	SubName: Full=Putative plasmid maintenance toxin/Cell growth...
b1sxp1	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1r4a4	132	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
b1qqf4	142	22	10.3	SubName: Full=Toxin complex component ORF-X1;
b1mu31	93	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
b1jeh8	115	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b1j5u9	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1ir28	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
b1i206	120	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
b1fid5	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b1fgj0	123	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0y919	416	43	10.3	SubName: Full=Toxin biosynthesis protein, putative;
b0u6h0	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0szv9	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0sku4	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0scc2	132	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0rkk0	110	22	10.3	SubName: Full=Putative addiction system toxin;
b0pak6	82	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
b0ndi7	133	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
b0mx98	173	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
b0mn98	123	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, RelE ...
b0jyn9	192	22	10.3	SubName: Full=Ras-related C3 botulinum toxin substrate 2 (Rh...
b0g4j9	173	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
b0eyq1	93	22	10.3	SubName: Full=Stability protein StbE; SubName: Full=StbE sta...
b0c2i9	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
b0byn7	98	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
b0bnu3	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a9l6m1	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a9cws3	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a9agd2	89	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
a8ztf7	125	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8zsa7	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8uxk6	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8rc40	135	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a8lt31	110	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin;
a8lgg9	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8lfk1	100	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a8l658	159	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8kxa8	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a8f2f4	142	22	10.3	SubName: Full=Toxin of toxin-antitoxin;
a7zgw5	138	22	10.3	RecName: Full=tRNA(fMet)-specific endonuclease VapC; EC=3.1....
a7xs54	368	38	10.3	SubName: Full=42 kDa insecticidal toxin;
a7x3r6	85	22	10.3	RecName: Full=Toxin 3FTx-Lei1; Flags: Precursor;
a7nsb2	176	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7lva9	132	22	10.3	SubName: Full=Putative toxin-antitoxin system, antitoxin com...
a7lva8	105	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a7c1h0	118	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB;
a7bye6	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a7bbf0	87	22	10.3	SubName: Full=Addiction module toxin, Txe/YoeB family;
a7bah6	87	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a7b687	156	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a6wwk8	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6wum1	94	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a6ukl5	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6q4t9	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a6nug2	206	22	10.3	SubName: Full=Putative toxin-antitoxin system, toxin compone...
a6bhh9	173	22	10.3	SubName: Full=Toxin-antitoxin system, toxin component, MazF ...
a5wsx8	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5wjw4	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5vd68	142	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5v055	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5uag3	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5tzx9	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a5kpb6	156	22	10.3	SubName: Full=Toxin secretion/phage lysis holin;
a5kp98	143	22	10.3	SubName: Full=Toxin-antitoxin system, antitoxin component, H...
a5g6e2	96	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a5ez83	97	22	10.3	SubName: Full=Antitoxin of toxin-antitoxin stability system;...
a5eus9	131	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4wlc7	124	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4wgm4	95	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a4wal3	108	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a4w2s9	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
a4vwh7	86	22	10.3	SubName: Full=Cytotoxic translational repressor of toxin-ant...
a4nw16	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4nqv1	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4njl7	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4neh5	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4mxt6	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4klu2	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4ket0	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4js70	120	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a4f2e5	273	28	10.3	SubName: Full=Cytolethal distending toxin A;
a4f2c4	273	28	10.3	SubName: Full=Cytolethal distending toxin A;
a4bvt8	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a4bma4	121	22	10.3	SubName: Full=Transcriptional modulator of MazE/toxin, MazF;...
a4blz0	135	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z4t3	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...

a3z422	138	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z166	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3z162	128	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3ytv9	127	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3tlr0	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3sud4	418	43	10.3	SubName: Full=Putative toxin secretion transmembrane protein...
a3rtt5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3n029	129	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3k7i1	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a3iwu8	166	22	10.3	SubName: Full=RTX toxin activating protein;
a3gyr7	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3gme1	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a3emt7	145	22	10.3	SubName: Full=Zona occludens toxin;
a2w431	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vpj6	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vnf5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2vfs5	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a2p4j1	166	22	10.3	SubName: Full=Cholera toxin secretion protein EpsM;
a1wpc2	140	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1uqg9	139	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1u2w4	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kp99	136	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1kg75	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1hri0	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1f0y5	150	22	10.3	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
a1bjq4	124	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a1b816	91	22	10.3	SubName: Full=Addiction module toxin, RelE/StbE family;
a1aza2	112	22	10.3	SubName: Full=RelE-like cytotoxic translational repressor of...
a0zt22	101	22	10.3	SubName: Full=Antibacterial toxin;
a0znf7	133	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0zht8	134	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0rpj2	233	24	10.3	SubName: Full=Cytolethal distending toxin A;
a0rm04	273	28	10.3	SubName: Full=Cytolethal distending toxin A;
a0r0n4	109	22	10.3	RecName: Full=Toxin MazF; EC=3.1.-.-; AltName: Full=Probable...
a0pth7	144	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0m717	137	22	10.3	RecName: Full=Probable ribonuclease VapC; Short=Probable RNa...
a0f0c2	86	22	10.3	SubName: Full=Sodium channel toxin;
a0f0c1	85	22	10.3	SubName: Full=Sodium channel toxin;
r2pxf8	322	33	10.2	SubName: Full=Exfoliative toxin A/B;
r0ztu6	433	44	10.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0xcu2	433	44	10.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
r0ezj2	413	42	10.2	SubName: Full=Insecticidal toxin complex protein TcaC;
q9kgq7	461	47	10.2	SubName: Full=Zonula occludens toxin like protein;
q8r2g4	371	38	10.2	RecName: Full=Ecto-ADP-ribosyltransferase 3; EC=2.4.2.31; Al...
q81dd1	245	25	10.2	RecName: Full=Stage II sporulation protein SA; AltName: Full...
q7vsx8	463	47	10.2	RecName: Full=Type IV secretion system protein PtlD; AltName...
q7n731	451	46	10.2	SubName: Full=RTX toxin ABC transporter protein (MFP) RtxD;
q5mq79	265	27	10.2	SubName: Full=Beta-2 toxin; SubName: Full=Beta2 toxin; SubNa...
q5mq71	265	27	10.2	SubName: Full=Beta2 toxin; SubName: Full=Beta2-toxin;
q58ed1	363	37	10.2	SubName: Full=Multidrug and toxin extrusion protein 1; SubNa...
q4wks5	421	43	10.2	SubName: Full=Toxin biosynthesis protein, putative;
m9s629	420	43	10.2	SubName: Full=Zona occludens toxin;
m6q4u2	431	44	10.2	SubName: Full=Toxin HINT domain protein;
l8sm53	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
l8nfi4	431	44	10.2	SubName: Full=Toxin/anti-toxin system toxin module;
l7fe89	313	32	10.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l5t080	283	29	10.2	SubName: Full=Pre-toxin domain with VENN motif family protei...
l5m9c3	460	47	10.2	SubName: Full=Anthrax toxin receptor-like protein;

l1qwx1	225	23	10.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
l1psp7	332	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
l1nb90	303	31	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic d...
k7b8r2	333	34	10.2	SubName: Full=Anthrax toxin receptor 1;
k5tu48	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5swb1	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5qth8	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5nx07	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5lxr9	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5lrl0	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k5lmf2	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k2w5y7	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k2vjv4	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k2v6m5	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k2un80	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k2uct9	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
k1qxg8	400	41	10.2	SubName: Full=Multidrug and toxin extrusion protein 1;
j8xbd3	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
j8v338	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
j4kmi6	294	30	10.2	SubName: Full=Zeta toxin;
j1q9v9	256	26	10.2	SubName: Full=Zeta toxin family protein;
j1fur9	256	26	10.2	SubName: Full=Zeta toxin family protein;
i7h4m4	275	28	10.2	SubName: Full=Cytolethal distending toxin subunit A;
i3btz3	364	37	10.2	SubName: Full=RTX toxin; Flags: Precursor;
h9cjg6	225	23	10.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h8nyb5	509	52	10.2	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
h8gqk8	460	47	10.2	SubName: Full=Zonula occludens toxin;
h2d740	226	23	10.2	SubName: Full=Putative zeta toxin;
h0edz9	236	24	10.2	SubName: Full=Putative HC-toxin efflux carrier TOXA;
g8mre2	245	25	10.2	SubName: Full=Antitoxin/toxin system zeta toxin, signal reco...
g7htu9	449	46	10.2	SubName: Full=RTX toxins and related Ca2+-binding proteins;
g6al08	215	22	10.2	SubName: Full=Toxin-antitoxin system, toxin component, GNAT ...
g5dsd0	265	27	10.2	SubName: Full=Beta2-toxin;
g0agw5	371	38	10.2	SubName: Full=Zonula occludens toxin-like protein;
f9bgx1	384	39	10.2	SubName: Full=Zonular occludens toxin family protein;
f4n120	394	40	10.2	SubName: Full=Toxin RTX-I translocation ATP-binding protein;...
f3xwr9	344	35	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f3rqs4	461	47	10.2	SubName: Full=Zona occludens toxin;
f0scp7	470	48	10.2	SubName: Full=Binary exotoxin B/Anthrax toxin B moiety prote...
f0n9r7	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0n4p1	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0mph7	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0h6f2	334	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
f0b333	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0aut8	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0aim6	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0ad33	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
f0a1q5	361	37	10.2	SubName: Full=Zonula occludens toxin family protein;
e6mvz6	361	37	10.2	SubName: Full=Zonula occludens toxin family protein; SubName...
e4vl65	275	28	10.2	SubName: Full=Cytolethal distending toxin;
e1vm56	402	41	10.2	SubName: Full=Putative Zeta toxin of the postsegregational k...
e1eb25	461	47	10.2	SubName: Full=Zonula occludens toxin (Zot) family;
e1dnq4	461	47	10.2	SubName: Full=Zonula occludens toxin (Zot) family;
e1crn1	461	47	10.2	SubName: Full=Zonula occludens toxin (Zot) family;
d9wsz1	314	32	10.2	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d8f5z8	256	26	10.2	SubName: Full=Toxin-antitoxin system, toxin component family...
d7jbg8	334	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4xjp9	422	43	10.2	SubName: Full=HipA family toxin-antitoxin system;

d4wvb8	334	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4wkj0	334	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4vqy0	334	34	10.2	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4j1s0	361	37	10.2	SubName: Full=Predicted membrane protein, putative toxin reg...
d4axw1	410	42	10.2	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
d0m8b3	461	47	10.2	SubName: Full=Zona occludens toxin;
d0ki10	235	24	10.2	SubName: Full=Zeta toxin family protein;
d0gnj3	362	37	10.2	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
c7fpu4	315	32	10.2	SubName: Full=Shiga toxin 1 A subunit;
c5r8n8	382	39	10.2	SubName: Full=Membrane protein, toxin regulator;
c3htd7	353	36	10.2	SubName: Full=35.8-kilodalton mosquitocidal toxin;
b8cp63	382	39	10.2	SubName: Full=Zonular occludens toxin;
b6scy5	361	37	10.2	SubName: Full=Putative Shiga-like toxin alpha subunit;
b5sab6	449	46	10.2	SubName: Full=Probable hemolysin-type calcium-binding protei...
b1r976	265	27	10.2	SubName: Full=Beta2 toxin;
b1bun0	265	27	10.2	SubName: Full=Beta-2 toxin;
b1bfb2	265	27	10.2	SubName: Full=Beta-2 toxin;
a3rpd0	449	46	10.2	SubName: Full=Hemolysin-type Calcium-binding protein-RTX tox...
r1w564	287	29	10.1	SubName: Full=Zeta-toxin;
r1vhx2	287	29	10.1	SubName: Full=Zeta-toxin;
r1mkd7	287	29	10.1	SubName: Full=Zeta-toxin;
r1m8r6	287	29	10.1	SubName: Full=Zeta-toxin;
r1m1u8	287	29	10.1	SubName: Full=Zeta-toxin;
r1l3n6	287	29	10.1	SubName: Full=Zeta-toxin;
r1kx27	287	29	10.1	SubName: Full=Zeta-toxin;
r1kpu0	287	29	10.1	SubName: Full=Zeta-toxin;
r1khz1	287	29	10.1	SubName: Full=Zeta-toxin;
r1hy47	287	29	10.1	SubName: Full=Zeta-toxin;
q93cm1	286	29	10.1	RecName: Full=Toxin zeta; AltName: Full=UDP-N-acetylglucosam...
p17981	287	29	10.1	RecName: Full=T-cell ecto-ADP-ribosyltransferase 1; EC=2.4.2...
o49163	357	36	10.1	SubName: Full=NADPH HC toxin reductase;
n6v9p2	238	24	10.1	SubName: Full=CtxA-like, cholera toxin A subunit;
m7qy56	326	33	10.1	SubName: Full=Zeta toxin family protein;
m1sza5	358	36	10.1	SubName: Full=Putative insecticidal toxin complex;
l5kuz6	517	52	10.1	SubName: Full=Anthrax toxin receptor 1;
l2rqg9	258	26	10.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2pwi0	258	26	10.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2p1s7	258	26	10.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2k0g2	258	26	10.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2iwq6	258	26	10.1	SubName: Full=Bro family toxin-antitoxin system, toxin compo...
l2g732	326	33	10.1	SubName: Full=Toxin biosynthesis;
l1bxb2	296	30	10.1	SubName: Full=Shiga-like toxin 1 subunit A; EC=3.2.2.22;
k9bxa0	404	41	10.1	SubName: Full=Zonula occludens toxin;
k1i4b1	486	49	10.1	SubName: Full=ADP-ribosyltransferase toxin AexT;
k0yv43	464	47	10.1	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
k0ykt9	464	47	10.1	SubName: Full=Multidrug and toxin extrusion (MATE) family ef...
k0xvf9	424	43	10.1	SubName: Full=Zona occludens toxin;
j7k7g4	358	36	10.1	SubName: Full=Anthrax toxin receptor 1 transcript variant 5;...
j1v3y5	258	26	10.1	SubName: Full=Toxin PezT;
j1ud39	258	26	10.1	SubName: Full=Toxin PezT;
j1edc0	258	26	10.1	SubName: Full=Zeta toxin family protein;
j0zyh7	258	26	10.1	SubName: Full=Toxin PezT;
j0um11	258	26	10.1	SubName: Full=Zeta toxin family protein;
j0nev6	336	34	10.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
j0krr8	485	49	10.1	SubName: Full=Vacuolating toxin;
i8u5u1	415	42	10.1	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
i7c513	326	33	10.1	SubName: Full=Zeta toxin family protein;
i0qhh7	257	26	10.1	SubName: Full=Zeta-toxin;

h7wj55	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7w751	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7vyr7	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7vvx9	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7vjd5	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7vcp8	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7vb45	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7ud27	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7u7d6	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7tcc4	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7t913	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7slb7	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h7qyq5	258	26	10.1	SubName: Full=Cytolethal distending toxin subunit A;
h2fw35	358	36	10.1	SubName: Full=Zonular occludens toxin;
h1lil3	336	34	10.1	SubName: Full=Clostridial binary toxin A;
h0s1r2	574	58	10.1	SubName: Full=Putative secretion ATP-binding protein (ABC-ty...
h0eby9	572	58	10.1	SubName: Full=Hemolysin-type calcium-binding toxin;
h0cir8	317	32	10.1	SubName: Full=Toxin, beta-grasp domain protein;
f7j0a4	454	46	10.1	SubName: Full=Iota toxin component Ia;
f2bxt9	338	34	10.1	SubName: Full=Zeta toxin superfamily protein;
e6hjb7	287	29	10.1	SubName: Full=Zeta toxin;
e5uz31	425	43	10.1	SubName: Full=HipA family Toxin-antitoxin system;
e5rm52	268	27	10.1	SubName: Full=Cytolethal distending toxin B;
e3zfr0	227	23	10.1	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
e1ciu8	258	26	10.1	SubName: Full=Cytolethal distending toxin A;
d9xq58	286	29	10.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d6k781	218	22	10.1	SubName: Full=Xre family toxin-antitoxin system, antitoxin c...
d5eym5	427	43	10.1	SubName: Full=Putative toxin secretion protein;
d3akv1	365	37	10.1	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d1pb70	345	35	10.1	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
c8nb73	425	43	10.1	SubName: Full=HipA family toxin-antitoxin system, toxin comp...
c4u9t0	424	43	10.1	SubName: Full=RTX toxin and Ca2+-binding protein;
c3icx2	248	25	10.1	SubName: Full=Zeta toxin;
b8mxk8	415	42	10.1	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
b7j5f4	445	45	10.1	SubName: Full=Toxin secretion protein, HlyD family;
a6frh9	556	56	10.1	SubName: Full=RTX toxins and related Ca2+-binding protein;
a5vxx3	326	33	10.1	SubName: Full=Zeta toxin family protein;
a4f2a0	258	26	10.1	SubName: Full=Cytolethal distending toxin A;
a4f297	258	26	10.1	SubName: Full=Cytolethal distending toxin A;
a3ke18	268	27	10.1	SubName: Full=Cytolethal distending toxin B;
a3ke15	268	27	10.1	SubName: Full=Cytolethal distending toxin B;
a3eid1	278	28	10.1	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
r1w998	320	32	10.0	SubName: Full=Exfoliative toxin A/B;
r0u6u1	290	29	10.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
q8gi68	440	44	10.0	SubName: Full=Alpha-toxin;
q7w2u8	269	27	10.0	RecName: Full=Pertussis toxin subunit 1 homolog; Flags: Prec...
q76dt2	498	50	10.0	RecName: Full=Toxin AvTX-60A; Flags: Precursor;
q4wc23	409	41	10.0	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
q08dg9	488	49	10.0	SubName: Full=Anthrax toxin receptor 2; SubName: Full=Unchar...
p59026	399	40	10.0	RecName: Full=Phospholipase C; Short=PLC; EC=3.1.4.3; AltNam...
n2hrk5	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;
n1rni1	468	47	10.0	SubName: Full=Putative HC-toxin efflux carrier TOXA;
n1rhf1	568	57	10.0	SubName: Full=Putative HC-toxin efflux carrier TOXA;
m9hml1	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;
m8v934	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;
m8pc78	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;
m8mpe8	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;
m8mb02	418	42	10.0	SubName: Full=Zonular occludens toxin family protein;

l7eui3	250	25	10.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
l2ezf2	350	35	10.0	SubName: Full=Putative membrane protein, putative toxin regu...
l2es71	350	35	10.0	SubName: Full=Putative membrane protein, putative toxin regu...
l0xd73	489	49	10.0	SubName: Full=Pre-toxin domain with VENN motif family protei...
k8ze19	520	52	10.0	SubName: Full=Toxin-antitoxin toxin pin family;
k8f8h1	350	35	10.0	SubName: Full=Membrane protein, toxin regulator, putative;
k0mbh6	269	27	10.0	SubName: Full=Pertussis toxin subunit 1; EC=2.4.2.-;
k0jjm0	280	28	10.0	SubName: Full=Toxin A;
j9uvg6	280	28	10.0	SubName: Full=Toxin A;
j7rki9	269	27	10.0	SubName: Full=Pertussis toxin subunit 1; EC=2.4.2.-;
j4x295	280	28	10.0	SubName: Full=Zeta toxin;
j4kfg5	229	23	10.0	SubName: Full=Zeta toxin;
i3ce08	349	35	10.0	SubName: Full=Zonula occludens toxin;
i2cuv0	488	49	10.0	SubName: Full=Anthrax toxin receptor 2 isoform 1;
g7ugf6	369	37	10.0	SubName: Full=Toxin-antitoxin system, toxin component, HipA ...
g7j427	399	40	10.0	SubName: Full=Multidrug and toxin extrusion protein;
g6dys5	350	35	10.0	SubName: Full=Aerolysin/hemolysin/leukocidin toxin; Flags: P...
f5l1p8	339	34	10.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
e9eqv3	419	42	10.0	SubName: Full=Toxin biosynthesis protein, putative;
e5au95	379	38	10.0	SubName: Full=INSECTICIDAL TOXIN COMPLEX PROTEIN TCCC;
d8n0y8	339	34	10.0	SubName: Full=Conserved hypothethical protein, omega toxin-l...
d7jck2	219	22	10.0	SubName: Full=Toxin-antitoxin system, antitoxin component, X...
d6ler7	250	25	10.0	SubName: Full=Toxin-antitoxin system, toxin component, Bro f...
d4vbn6	360	36	10.0	SubName: Full=Toxin-antitoxin system, toxin component, Fic f...
d4mbj6	350	35	10.0	SubName: Full=Predicted membrane protein, putative toxin reg...
d3v104	350	35	10.0	SubName: Full=Toxin XaxB;
d0bl84	300	30	10.0	SubName: Full=Exfoliative toxin;
c8m6y6	229	23	10.0	SubName: Full=Toxin beta-grasp domain-containing protein;
c4tv43	460	46	10.0	SubName: Full=Toxin ABC transporter, ATP-binding/permease pr...
c2jkg2	350	35	10.0	SubName: Full=Membrane protein, toxin regulator; SubName: Fu...
c2h4p6	350	35	10.0	SubName: Full=Membrane protein, toxin regulator; SubName: Fu...
c2dcj0	350	35	10.0	SubName: Full=Membrane protein, toxin regulator;
c0x5p0	350	35	10.0	SubName: Full=Membrane protein, toxin regulator;
b7tgy9	430	43	10.0	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...
b0y9m2	409	41	10.0	SubName: Full=Toxin biosynthesis protein (Tri7), putative;
a3eic8	430	43	10.0	SubName: Full=Toxin co-regulated pilus biosynthesis protein ...

C Scripts for allergen analysis

Script for making the search for identity over a window

```
#!/bin/csh
#
# USAGE: windowmatch <query sequence> <library> <windowlength> <cutoff> <raw fasta output>
#  e.g. windowmatch BG025.fasta allergenonline.fasta  80 35.0 ../rawfasta.txt
#
awk -v window=$3 -f ./makewindows.awk $1
find . -name "window$3_*.fasta" -exec /z/linux/fasta/fasta34 -Q -b 100000 -d 100000 -w 100 {} \
  $2 2 \; | tee $5 | grep -A 2 ">>" \
  | awk -v window=$3 -v threshold=$4 '/^>>/ {name= substr($1,3,200); getline; getline; percent=gensub("%","","g",$4);\
  overlap= int($9); if (1.0*percent >= 1.0*threshold && 1*overlap >= 1*window)  \
  {printf "%s\t%3.1f%% identity i %2d aa overlap.\n", \
  name, percent, overlap}}' | sort -r -n --key=10
```

The script is invoked by the following command, where parameter 2 is the length of the window, and parameter 3 is the identity threshold:

```
windowmatch WTY939-8-3.fasta allergenonline.fasta 80 35.0 >
allergenonline_window80_result.txt
```

and

```
windowmatch WTY939-8-3.fasta allergen.org.fasta 80 35.0 >
allergenorg_window80_result.txt
```

Script for making the search for scaled identity over a window

```
#!/bin/csh
#
# USAGE: windowmatch_scale <query sequence> <Library> <windowlength> <cutoff> <raw fasta output>
#  e.g. windowmatch BG025.fasta allergenbonline.fasta 80 35.0 myfastaoutput.txt
#
awk -v window=$3 -f ./makewindows.awk $1
find . -name "window80_*.fasta" -exec /z/linux/fasta/fasta34 -Q -b 100000 -d 100000 -w 100 {} \
  $2 2 \; | tee $5 | grep -A 2 ">>" \
  | awk -v window=$3 -v threshold=$4 '/^>>/ {name= substr($1,3,200); getline; getline; percent=$4; \
  overlap= int($9); newpercent=(1.0*percent*overlap)/(1.0*window); if (newpercent >= 1.0*threshold && overlap < window) \
  {printf "%s\t%3.1f%% identity i %2d aa overlap, scaled to %3.1f%% identity i %d aa overlap\n", \
  name, percent, overlap, newpercent, window }}' | sort -r -n --key=10
```

The script in invoked by the following command, where parameter 2 is the length of the window,

and parameter 3 is the identity threshold. This script allows identification of matches with higher identity over shorter windows than 80 amino acids. For example a match with 50% identity over 60 amino acids would still have enough identical amino acids to exceed the 35% threshold over 80 amino acids: $60 \cdot 0.50/80 = 0.375 = 37.5\%$.

```
windowmatch_scale WTY939-8-3.fasta allergenonline.fasta 80 35.0 >
allergenonline_window80_result_scale.txt
```

and

```
windowmatch_scale WTY939-8-3.fasta allergen.org.fasta 80 35.0 >
allergenorg_window80_result_scale.txt
```

Common awk script used by the two previous scripts

The file is named `makewindows.awk`

```
BEGIN { seq=""
  if (window < 1)
     window = 6
}
{
   if (substr($0,1,1) != ">")
   {
     gsub("[^A-Za-z]","")
     seq = sprintf("%s%s",seq,$0)
   }
}
END {
   for (i=1; i<length(seq)-window+2; i++)
   {
     filename = sprintf ("window%d_%04d.fasta", window, i)
     printf ">window%d_%04d\n", window, i > filename
     printf "%s\n", substr(seq,i,window) > filename
   }


}
```

Script for making the Needleman-Wunsch alignment and comparison

```
#!/bin/csh
#
# USAGE: fullmatch <query sequence> <library> <cutoff> <raw needle output>
#  e.g. fullmatch BG025.fasta 35.0 ../rawneedle.txt
#
```

```
needle -asequence $1 -bsequence $2 \
  -gapopen 10.0 -gapextend 0.5 -outfile /dev/stdout \
  | tee $4 |  awk -v threshold=$3 '/2:/{name = substr($3,1,80) } \
   /Identity/{ matches = $3; percent = strtonum(gensub("\\(","",1,$NF)); \
   if (percent >= threshold) {printf "%-80s %-10s = %5.1f%%\n", \
   name,matches,percent }   }   ' | sort -r -n --key=4
```

The script is invoked by the following command, where parameter 1 is the identity threshold:

```
fullmatch WTY939-8-3.fasta allergenonline.fasta 10.0 >
allergenonline_fullresult.txt
```

and

```
fullmatch WTY939-8-3.fasta allergen.org.fasta 10.0 >
allergenorg_fullresult.txt
```

D List of allergens from allergenonline

List of allergens that have been tested by the EFSA scientific opinion recommended allergen analysis described in section 2. The sequences were downloaded via `http://allergenonline.org`.

Count	Species	Common	IUIS Allergen	Type	Group	Length	GI#	FirstVersion
1	Acarus siro	Mite	Unassigned	Aero Mite	Acarus Aca s 13	131	118638268	9
2	Actinidia chinensis	Kiwi	Unassigned	Food Plant	Actinidia Act c 1 Act d 1	380	190358935	9
3	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia Act c 1 Act d 1	380	15984	7
4	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia Act c 1 Act d 1	380	166317	7
5	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia Act c 1 Act d 1	380	193806686	12
6	Actinidia chinensis	Kiwi	Unassigned	Food Plant	Actinidia Act c 8 Act d 8 PR-10	159	281552896	11
7	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia Act c 8 Act d 8 PR-10	157	281552898	11
8	Actinidia deliciosa	Kiwi	Unassigned	Unassigned	Actinidia Act d 11 Kirola MLP	150	332319679	12
9	Actinidia chinensis	Kiwi	Unassigned	Food Plant	Actinidia Kiwellin	189	85701136	7
10	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia Phytocystatin Act d 4	116	40807635	7
11	Actinidia chinensis	Kiwi	Unassigned	Food Plant	Actinidia thaumatin Act d 2	20	68064399	7
12	Actinidia deliciosa	Kiwi	Act c 2	Food Plant	Actinidia thaumatin Act d 2	225	71057064	7
13	Actinidia deliciosa	Kiwi	Unassigned	Food Plant	Actinidia thaumatin Act d 2	201	146737976	9
14	Aedes aegypti	Yellow fever mosquito	Aed a 2	Venom or Salivary	Aedes Aed a 2	321	118216	7
15	Aedes aegypti	Yellow fever mosquito	Aed a 2	Venom or Salivary	Aedes Aed a 2	321	205525919	9
16	Aedes aegypti	Yellow fever mosquito	Unassigned	Venom or Salivary	Aedes Aed a 3	253	2114497	7
17	Aedes aegypti	Yellow fever mosquito	Unassigned	Venom or Salivary	Aedes Aed a 3	273	94468546	7
18	Aedes aegypti	Yellow fever mosquito	Unassigned	Venom or Salivary	Aedes Aed a 3	258	94468552	7
19	Aedes aegypti	Yellow fever	Aed a 1	Venom or	Aedes apyrase Aed a	562	556272	7

		mosquito		Salivary	1			
20	Aedes aegypti	Yellow fever mosquito	Unassigned	Venom or Salivary	Aedes apyrase Aed a 1	562	193806340	10
21	Agrostis alba	Bent grass	Unassigned	Aero Plant	Agrostis Agr a 1	26	320606	7
22	Agrostis alba	Bent grass	Unassigned	Aero Plant	Agrostis Agr a 1	35	75139987	7
23	Agrostis alba	Bent grass	Unassigned	Aero Plant	Agrostis Agr a 1	35	75139989	7
24	Alnus glutinosa	Alder	Aln g 1	Aero Plant	Alnus Aln g 1	160	261407	7
25	Alnus glutinosa	Alder	Unassigned	Aero Plant	Alnus Aln g 4	85	3319651	7
26	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria ADH Alta a 10	497	76666767	7
27	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria Alt a 13	231	74611808	10
28	Alternaria alternata	Fungus	Alt a 1	Aero Fungi	Alternaria Alt a I	157	1842045	7
29	Alternaria alternata	Fungus	Alt a 1	Aero Fungi	Alternaria Alt a I	115	21913174	7
30	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria Alt a I	157	45680856	7
31	Alternaria alternata	Fungus	Alt a 6	Aero Fungi	Alternaria enolase Alt a 6	438	14423684	7
32	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria flavodoxin Alt a 7	204	1168402	9
33	Alternaria alternata	Fungus	Alt a 3	Aero Fungi	Alternaria HSP Alt a 3	152	14423730	7
34	Alternaria alternata	Fungus	Unassigned	Aero Plant	Alternaria MnSOD	25	292630881	12
35	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria Nuc Transport 2	124	21748153	7
36	Alternaria alternata	Fungus	Alt a 12	Aero Fungi	Alternaria Ribosomal BP P1 Alt a 12	110	1350779	7
37	Alternaria alternata	Fungus	Alt a 5	Aero Fungi	Alternaria ribosomal P2 Alt a 5	113	1850540	7
38	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria ribosomal P2 Alt a 5	113	1173071	10
39	Alternaria alternata	Fungus	Unassigned	Aero Fungi	Alternaria TCTP IgE binding	169	112824341	11
40	Alternaria alternata	Fungus	Alt a 4	Aero Fungi	Alternaria thioredoxin Alt a 4	436	85701160	7
41	Amaranthus retroflexus	Common Amaranth	Unassigned	Aero Plant	Amaranthus Ama r 2 Proflin	133	227937304	10
42	Ambrosia artemisiifolia	Short ragweed	Amb a 1.1	Aero Plant	Ambrosia Amb a 1	396	113475	7

43	Ambrosia artemisiifolia	Short ragweed	Amb a 1.2	Aero Plant	Ambrosia Amb a 1	398	113476	7
44	Ambrosia artemisiifolia	Short ragweed	Amb a 1.3	Aero Plant	Ambrosia Amb a 1	397	113477	7
45	Ambrosia artemisiifolia	Short ragweed	Amb a 1.4	Aero Plant	Ambrosia Amb a 1	392	113478	7
46	Ambrosia artemisiifolia	Short ragweed	Amb a 1.3	Aero Plant	Ambrosia Amb a 1	397	166443	7
47	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	396	302127810	12
48	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	398	302127812	12
49	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127814	12
50	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127816	12
51	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127818	12
52	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127820	12
53	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127822	12
54	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	387	302127824	12
55	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127826	12
56	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 1	397	302127828	12
57	Ambrosia artemisiifolia	Short ragweed	Amb a 2	Aero Plant	Ambrosia Amb a 2	397	113479	7
58	Ambrosia artemisiifolia (elatior)	Short ragweed	Amb a 3	Aero Plant	Ambrosia Amb a 3	101	416636	7
59	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	164	285005079	11
60	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	164	291197394	12
61	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	111	291482306	12
62	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	140	291482308	12
63	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	134	291482310	12
64	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	96	291482314	12
65	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	110	291482316	12

66	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 4	116	291482318	12
67	Ambrosia artemisiifolia (elatior)	Short ragweed	Amb a 5	Aero Plant	Ambrosia Amb a 5	45	114090	7
68	Ambrosia psilostachya	Western ragweed	Unassigned	Aero Plant	Ambrosia Amb a 5	77	515953	7
69	Ambrosia psilostachya	Western ragweed	Unassigned	Aero Plant	Ambrosia Amb a 5	77	515954	7
70	Ambrosia psilostachya	Western ragweed	Unassigned	Aero Plant	Ambrosia Amb a 5	77	515955	7
71	Ambrosia psilostachya	Western ragweed	Unassigned	Aero Plant	Ambrosia Amb a 5	77	515956	7
72	Ambrosia psilostachya	Western ragweed	Unassigned	Aero Plant	Ambrosia Amb a 5	77	515957	7
73	Ambrosia artemisiifolia	Short ragweed	Amb a 6	Aero Plant	Ambrosia Amb a 6	118	14285595	7
74	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 8 profilin	133	34851182	7
75	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 8 profilin	131	34851180	7
76	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 8 profilin	131	34851178	7
77	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 8 profilin	133	62249502	7
78	Ambrosia artemisiifolia	Short ragweed	Unassigned	Aero Plant	Ambrosia Amb a 8 profilin	133	62249512	7
79	Ambrosia trifida	Giant ragweed	Amb t 5	Aero Plant	Ambrosia trifida Amb t 5	73	114091	7
80	Anacardium occidentale	Cashew	Ana o 1	Food Plant	Anacardium Ana o 1	536	21666498	7
81	Anacardium occidentale	Cashew	Ana o 1	Food Plant	Anacardium Ana o 1	538	21914823	7
82	Anacardium occidentale	Cashew	Ana o 2	Food Plant	Anacardium Ana o 2	457	25991543	7
83	Anacardium occidentale	Cashew	Ana o 3	Food Plant	Anacardium Ana o 3	138	24473800	7
84	Ananas comosus	Pineapple	Unassigned	Aero Plant	Ananas Ana c 2 Bromelain precursor	351	75277440	7
85	Ananas comosus	Pineapple	Unassigned	Food Plant	Ananas profilin	131	75306610	10
86	Anisakis simplex	Parasitic fish worm	Ani s 1	Worm (parasite)	Anisakis Ani s 1 protease inhibitor	194	47605452	7
87	Anisakis simplex	Parasitic fish worm	Unassigned	Food Animal	Anisakis Ani s 11	307	323575361	12
88	Anisakis simplex	Parasitic fish worm	Unassigned	Food Animal	Anisakis Ani s 11	160	323575363	12

89	Anisakis simplex	Parasitic fish worm	Unassigned	Food Animal	Anisakis Ani s 11	287	323575365	12
90	Anisakis simplex	Parasitic fish worm	Unassigned	Food Animal	Anisakis Ani s 12	295	323575367	12
91	Anisakis simplex	Parasitic fish worm	Ani s 2	Worm (parasite)	Anisakis Ani s 2 paramyosin	473	8453086	7
92	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 2 paramyosin	869	42559536	9
93	Anisakis simplex	Parasitic fish worm	Ani s 4	Worm (parasite)	Anisakis Ani s 4	14	47605398	7
94	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 4	115	110346534	8
95	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 5 SXP/RAL-2 family protein	152	121308878	8
96	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 7 UA3-recognized allergen	1096	119524036	9
97	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676636	9
98	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676682	9
99	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676684	9
100	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676686	9
101	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676688	9
102	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676690	9
103	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676692	9
104	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676694	9
105	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676696	9
106	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 8 SXP/RAL-2 family protein 2	150	155676698	9
107	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis Ani s 9	147	157418806	9

108	Anisakis simplex	Parasitic fish worm	Unassigned	Worm (parasite)	Anisakis simplex troponin-like	161	6065738	7
109	Anthoxanthum odoratum	Sweet vernal grass	Unassigned	Aero Plant	Anthoxanthum Ant o 1	26	320607	7
110	Anthoxanthum odoratum	Sweet vernal grass	Unassigned	Aero Plant	Anthoxanthum Ant o 1	32	75139986	7
111	Anthoxanthum odoratum	Sweet vernal grass	Unassigned	Aero Plant	Anthoxanthum Ant o 1	32	75139990	7
112	Apis cerana	Indian honeybee	Unassigned	Venom or Salivary	Apis Api m 1	134	7435005	7
113	Apis cerana cerana	Indian honeybee	Unassigned	Venom or Salivary	Apis Api m 1	134	24638082	7
114	Apis dorsata	Giant honeybee	Unassigned	Venom or Salivary	Apis Api m 1	134	47117012	7
115	Apis mellifera	Honeybee	Api m 1	Venom or Salivary	Apis Api m 1	167	24418862	7
116	Apis mellifera	Honeybee	Api m 2	Venom or Salivary	Apis Api m 2	382	585279	7
117	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 3 acid phosphatase	388	208342441	10
118	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 3 acid phosphatase	388	60652325	11
119	Apis dorsata	Giant honeybee	Unassigned	Venom or Salivary	Apis Api m 4 Melittin	26	126955	7
120	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 4 Melittin	27	69552	7
121	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 4 Melittin	70	126949	8
122	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 5 dipeptidylpeptidase	775	313471719	12
123	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 6	92	94400907	7
124	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis Api m 6	94	88770352	10
125	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis icarapin Api m 10	223	94471622	7
126	Apis mellifera	Honeybee	Unassigned	Venom or Salivary	Apis icarapin Api m 10	175	94471624	7
127	Apium graveolens	Celery	Api g 1.0101	Food Plant	Apium Api g 1	154	1346568	7
128	Apium graveolens	Celery	Api g 1.0201	Food Plant	Apium Api g 1	159	14423646	9
129	Apium graveolens	Celery	Api g 2.0101	Food Plant	Apium Api g 2	118	256600126	12
130	Apium graveolens	Celery	Api g 4	Food Plant	Apium Api g 4	134	4761578	7

131	Apium graveolens	Celery	Unassigned	Food Plant	Apium Api g 5	22	33300921	7
132	Apium graveolens	Celery	Unassigned	Food Plant	Apium Api g 5	30	32363124	7
133	Apium graveolens	Celery	Unassigned	Food Plant	Apium Api g 5	24	32363125	7
134	Apium graveolens	Celery	Unassigned	Food Plant	Apium Api g 5	10	32363126	7
135	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Agglutinin (lectin)	273	253289	7
136	Arachis hypogaea	Peanut	Ara h 1	Food Plant	Arachis Ara h 1	614	1168390	7
137	Arachis hypogaea	Peanut	Ara h 1	Food Plant	Arachis Ara h 1	626	1168391	7
138	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 1	299	46560474	7
139	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 1	303	46560472	7
140	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 1	428	46560476	7
141	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 1	619	312233063	12
142	Arachis hypogaea	Peanut	Ara h 2.02	Food Plant	Arachis Ara h 2	172	26245447	7
143	Arachis hypogaea	Peanut	Ara h 2	Food Plant	Arachis Ara h 2	169	31322017	7
144	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 2	156	15418705	10
145	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 2	158	224747150	10
146	Arachis hypogaea	Peanut	Ara h 5	Food Plant	Arachis Ara h 5	131	5902968	7
147	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 5	131	284810529	11
148	Arachis hypogaea	Peanut	Ara h 6	Food Plant	Arachis Ara h 6	129	5923742	7
149	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 6	144	17225991	7
150	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 6	127	159163254	9
151	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 6	145	75114094	10
152	Arachis hypogaea	Peanut	Ara h 7	Food Plant	Arachis Ara h 7	160	5931948	7
153	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 7	164	158121995	10
154	Arachis hypogaea	Peanut	Ara h 8	Food Plant	Arachis Ara h 8	157	37499626	7
155	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 8	153	145904610	9
156	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 8	157	169786740	9
157	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 8	157	110676574	12
158	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 9 LTP isoallergens	116	161087230	10
159	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Ara h 9 LTP isoallergens	92	161610580	10
160	Arachis hypogaea	Peanut	Ara h 3	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	507	3703107	7
161	Arachis hypogaea	Peanut	Ara h 4	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	530	5712199	7
162	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	538	21314465	7

163	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	219	22135348	7
164	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	512	112380623	8
165	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	530	199732457	10
166	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	510	224036293	10
167	Arachis hypogaea	Peanut	Unassigned	Food Plant	Arachis Glycinin (Ara h 3/Ara h 4)	512	312233065	12
168	Argas reflexus	European pigeon tick	Arg r 1	Venom or Salivary	Argas Arg r 1	159	58371884	7
169	Argas reflexus	European pigeon tick	Unassigned	Venom or Salivary	Argas Arg r 1	144	322812205	12
170	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Amb a 1-like	396	62530263	8
171	Artemisia vulgaris	Mugwort	Art v 1	Aero Plant	Artemisia Art v 1	132	27818335	7
172	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 2	162	148887203	9
173	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 3	37	73621307	7
174	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 3	114	189544578	11
175	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 3	116	189544584	11
176	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 3	117	189544590	11
177	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 3	117	189544595	11
178	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 4	133	73621415	7
179	Artemisia vulgaris	Mugwort	Unassigned	Aero Plant	Artemisia Art v 4	133	73621416	7
180	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	2735096	7
181	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	2735098	7
182	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	133	2735102	7
183	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	133	2735106	7
184	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	267	2735108	7
185	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	267	2735110	7

186	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	267	2735112	7
187	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	2735114	7
188	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	2735118	7
189	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	2735100	7
190	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	133	2735104	11
191	Ascaris suum	Parasitic roundworm	Asc s 1	Worm (parasite)	Ascaris Asc s 1	68	299550	7
192	Ascaris suum	Parasitic roundworm	Asc s 1	Worm (parasite)	Ascaris Asc s 1	1365	77416849	7
193	Ascaris suum	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris Asc s 1	134	343197079	12
194	Ascaris lumbricoides	Parasitic roundworm	Unassigned	Worm (parasite)	Ascaris tropomyosin	287	224016002	10
195	Aspergillus oryzae	Fungus	Asp o 21	Aero Fungi	Aspergillus Alpha-amylase A	499	94706935	7
196	Aspergillus fumigatus	Fungus	Asp f 1	Aero Fungi	Aspergillus Asp f 1	125	3021324	7
197	Aspergillus fumigatus	Fungus	Asp f 1	Aero Fungi	Aspergillus Asp f 1	150	9280360	7
198	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 1	176	54039254	7
199	Aspergillus fumigatus	Fungus	Asp f 10	Aero Fungi	Aspergillus Asp f 10	395	963013	7
200	Aspergillus fumigatus	Fungus	Asp f 11	Aero Fungi	Aspergillus Asp f 11	178	5019414	7
201	Aspergillus fumigatus	Fungus	Asp f 12	Aero Fungi	Aspergillus Asp f 12	706	83303658	7
202	Aspergillus fumigatus	Fungus	Asp f 2	Aero Fungi	Aspergillus Asp f 2	250	664852	7
203	Aspergillus fumigatus	Fungus	Asp f 2	Aero Fungi	Aspergillus Asp f 2	310	83300352	7
204	Aspergillus fumigatus Af293	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 2	304	66849502	7
205	Aspergillus fumigatus	Fungus	Asp f 22	Aero Fungi	Aspergillus Asp f 22	438	13925873	7
206	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 22	438	83288046	7
207	Aspergillus fumigatus	Fungus	Asp f 3	Aero Fungi	Aspergillus Asp f 3	168	2769700	7
208	Aspergillus fumigatus Af293	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 3	168	66845476	8

209	Aspergillus fumigatus	Fungus	Asp f 4	Aero Fungi	Aspergillus Asp f 4	286	3005839	7
210	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 4	322	83300369	7
211	Aspergillus fumigatus Af293	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 4	322	66847146	8
212	Aspergillus fumigatus	Fungus	Asp f 6	Aero Fungi	Aspergillus Asp f 6	221	1648970	7
213	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 6	210	83305645	7
214	Aspergillus fumigatus	Fungus	Asp f 7	Aero Fungi	Aspergillus Asp f 7	270	83300389	7
215	Aspergillus fumigatus	Fungus	Asp f 8	Aero Fungi	Aspergillus Asp f 8	111	6686524	7
216	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 8	111	83305635	7
217	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Asp f 9	395	85540942	7
218	Aspergillus niger	Fungus	Asp n 14	Aero Fungi	Aspergillus Asp n 14	804	2181180	7
219	Aspergillus niger	Fungus	Asp n 14	Aero Fungi	Aspergillus Asp n 14	804	4235093	7
220	Aspergillus flavus	Fungus	Unassigned	Aero Fungi	Aspergillus Oryzin Asp o 13, fl 13	403	74665726	7
221	Aspergillus oryzae	Fungus	Asp o 13	Aero Fungi	Aspergillus Oryzin Asp o 13, fl 13	403	129235	7
222	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Ribosomal protein L3	392	21215170	7
223	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Ribosomal protein L3	392	83305621	7
224	Aspergillus fumigatus	Fungus	Unassigned	Aero Fungi	Aspergillus Vacuolar Serine protease	495	2143220	7
225	Aspergillus niger	Fungus	Unassigned	Aero Fungi	Aspergillus Vacuolar Serine protease	533	289172	7
226	Bacillus sp.		Unassigned	Bacteria airway	Bacillus lentus Esperase	361	1225905	9
227	Bacillus lentus		Unassigned	Bacteria airway	Bacillus lentus subtilisin	269	267048	9
228	Bacillus licheniformis		Unassigned	Bacteria airway	Bacillus licheniformis subtlilisin	379	135016	9
229	Bacillus licheniformis		Unassigned	Bacteria airway	Bacillus licheniformis subtlilisin	374	11127680	9

230	Balanus rostratus		Unassigned	Food Animal	Balanus r tropomyosin	284	125659386	9
231	Batillus cornutus	Japanese turban shell	Unassigned	Food Animal	Batillus Tur c1	20	47117350	7
232	Batillus cornutus	Japanese turban shell	Unassigned	Food Animal	Batillus Tur c1	27	47117351	7
233	Batillus cornutus	Japanese turban shell	Unassigned	Food Animal	Batillus Tur c1	284	219806588	10
234	Bertholletia excelsa	Brazil nut	Ber e 2	Food Plant	Bertholletia 11S globulin	465	30313867	7
235	Bertholletia excelsa	Brazil nut	Unassigned	Food Plant	Bertholletia Ber e 1	154	17713	7
236	Bertholletia excelsa	Brazil nut	Ber e 1	Food Plant	Bertholletia Ber e 1	146	112754	7
237	Betula pendula	European white birch	Bet v 2	Aero Plant	Bet v 2	133	130975	7
238	Betula pendula	European white birch	Unassigned	Aero Plant	Bet v 2	133	157830684	9
239	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	51	320545	7
240	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	534898	7
241	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	534900	7
242	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	534910	7
243	Betula pendula	European white birch	Bet v 1.0301	Aero Plant	Betula Bet v 1	160	1168702	7
244	Betula pendula	European white birch	Bet v 1.1001	Aero Plant	Betula Bet v 1	160	1168709	7
245	Betula pendula	European white birch	Bet v 1.1601	Aero Plant	Betula Bet v 1	160	1321714	7
246	Betula pendula	European white birch	Bet v 1.1701	Aero Plant	Betula Bet v 1	160	1321716	7
247	Betula pendula	European white birch	Bet v 1.1801	Aero Plant	Betula Bet v 1	160	1321718	7
248	Betula pendula	European white birch	Bet v 1.1502	Aero Plant	Betula Bet v 1	160	1321720	7
249	Betula pendula	European white birch	Bet v 1.1901	Aero Plant	Betula Bet v 1	160	1321722	7
250	Betula pendula	European white birch	Bet v 1.2001	Aero Plant	Betula Bet v 1	160	1321724	7
251	Betula pendula	European white birch	Bet v 1.2101	Aero Plant	Betula Bet v 1	160	1321726	7
252	Betula pendula	European white birch	Bet v 1.2201	Aero Plant	Betula Bet v 1	160	1321728	7

253	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	1168703	7
254	Betula pendula	European white birch	Bet v 1.0501	Aero Plant	Betula Bet v 1	160	1168704	7
255	Betula pendula	European white birch	Bet v 1f/I	Aero Plant	Betula Bet v 1	160	1168705	7
256	Betula pendula	European white birch	Bet v 1.0801	Aero Plant	Betula Bet v 1	160	1168707	7
257	Betula pendula	European white birch	Bet v 1.0901	Aero Plant	Betula Bet v 1	160	1168708	7
258	Betula pendula	European white birch	Bet v 1m/n	Aero Plant	Betula Bet v 1	160	1168710	7
259	Betula pendula	European white birch	Bet v 1.0201	Aero Plant	Betula Bet v 1	160	1168701	7
260	Betula pendula	European white birch	Bet v 1.2401	Aero Plant	Betula Bet v 1	160	1542861	7
261	Betula pendula	European white birch	Bet v 1.2501	Aero Plant	Betula Bet v 1	160	1542863	7
262	Betula pendula	European white birch	Bet v 1.2601	Aero Plant	Betula Bet v 1	160	1542865	7
263	Betula pendula	European white birch	Bet v 1.2701	Aero Plant	Betula Bet v 1	160	1542867	7
264	Betula pendula	European white birch	Bet v 1.2801	Aero Plant	Betula Bet v 1	160	1542869	7
265	Betula pendula	European white birch	Bet v 1.2901	Aero Plant	Betula Bet v 1	160	1542871	7
266	Betula pendula	European white birch	Bet v 1.3001	Aero Plant	Betula Bet v 1	160	1542873	7
267	Betula pendula	European white birch	Bet v 1.2301	Aero Plant	Betula Bet v 1	160	2414158	7
268	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	2564220	7
269	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	2564222	7
270	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	2564224	7
271	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	2564228	7
272	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006928	7
273	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006945	7
274	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006953	7
275	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006955	7

276	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006957	7
277	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006959	7
278	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006961	7
279	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006965	7
280	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	4006967	7
281	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	4376216	7
282	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	4376219	7
283	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	4376220	7
284	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	4376221	7
285	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	4376222	7
286	Betula pendula	European white birch	Bet v 1 b1	Aero Plant	Betula Bet v 1	160	4590392	7
287	Betula pendula	European white birch	Bet v 1 b2	Aero Plant	Betula Bet v 1	160	4590394	7
288	Betula pendula	European white birch	bet v 1 b3	Aero Plant	Betula Bet v 1	160	4590396	7
289	Betula pendula	European white birch	Bet v 1.0701	Aero Plant	Betula Bet v 1	160	1168706	7
290	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	11514622	7
291	Betula pendula	European white birch	Bet v 1x	Aero Plant	Betula Bet v 1	21	30908931	7
292	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	38492423	7
293	Betula pendula	European white birch	Unassigned	Aero Plant	Betula Bet v 1	43	239734	7
294	Betula pendula	European white birch	Unassigned	Aero Plant	Betula Bet v 1	120	4006963	7
295	Betula pendula	European white birch	Unassigned	Aero Plant	Betula Bet v 1	120	4006947	7
296	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	160	114922	8
297	Betula pendula	European white birch	Bet v 1	Aero Plant	Betula Bet v 1	159	159162097	9
298	Betula platyphylla	Japanese white birch	Unassigned	Aero Plant	Betula Bet v 1	160	12583681	7

299	Betula platyphylla	Japanese white birch	Unassigned	Aero Plant	Betula Bet v 1	160	12583683	7
300	Betula platyphylla	Japanese white birch	Unassigned	Aero Plant	Betula Bet v 1	160	12583685	7
301	Betula sp.	Birch	Unassigned	Aero Plant	Betula Bet v 1	51	298736	7
302	Betula pendula	European white birch	Unassigned	Aero Plant	Betula Bet v 1b	51	320546	7
303	Betula sp.	Birch	Unassigned	Aero Plant	Betula Bet v 1b	51	298737	7
304	Betula pendula	European white birch	Bet v 3	Aero Plant	Betula Bet v 3	205	1168696	7
305	Betula pendula	European white birch	Bet v 4	Aero Plant	Betula Bet v 4	85	14423850	7
306	Betula pendula	European white birch	Bet v 6.0102	Aero Plant	Betula Bet v 6	308	10764491	7
307	Betula pendula	European white birch	Bet v 7	Aero Plant	Betula Bet v 7	173	21886603	7
308	Blattella germanica	German cockroach	Bla g 1.02	Aero Insect	Blattella Bla g 1	492	4240395	7
309	Blattella germanica	German cockroach	Bla g 1.0101	Aero Insect	Blattella Bla g 1	412	4572592	7
310	Blattella germanica	German cockroach	Bla g 2	Aero Insect	Blattella Bla g 2	352	1703445	7
311	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 2	330	62738637	7
312	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 2	352	145105726	9
313	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 2	334	315113421	12
314	Blattella germanica	German cockroach	Bla g 4	Aero Insect	Blattella Bla g 4	182	1166573	7
315	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 4	182	144952778	9
316	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 4	181	212675308	10
317	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 4	191	194350815	11
318	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 4	190	194350817	11
319	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 5	204	6225491	7
320	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella Bla g 5	200	144952780	9
321	Blattella germanica	German cockroach	Unassigned	Unassigned	Blattella Bla g 6	151	82704032	8
322	Blattella	German	Unassigned	Unassigned	Blattella Bla g 6	151	82704034	8

	germanica	cockroach						
323	Blattella germanica	German cockroach	Unassigned	Unassigned	Blattella Bla g 6	154	82704036	8
324	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella delta GST	216	161137518	11
325	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella tropomyosin	284	8101069	7
326	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella uncertain	20	544618	7
327	Blattella germanica	German cockroach	Unassigned	Aero Insect	Blattella uncertain	25	544619	7
328	Blomia tropicalis	Mite	Blo t 1	Aero Mite	Blomia Blo t 1.01	221	14276828	7
329	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 1.02	333	33667928	8
330	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 1.02	333	2	8
331	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 10	284	156938889	9
332	Blomia tropicalis	Mite	Blo t 11	Aero Mite	Blomia Blo t 11	875	21954740	7
333	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 13.01	130	37958153	8
334	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 13.01	130	14423698	9
335	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 21 tentative	129	111120432	8
336	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 21 tentative	129	111494253	8
337	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 21 tentative	129	111120424	8
338	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 21 tentative	129	111120428	8
339	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 21 tentative	129	111120420	8
340	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	25989482	7
341	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 3	266	33667930	8
342	Blomia tropicalis	Mite	Blo t 5	Aero Mite	Blomia Blo t 5	134	4204917	7
343	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 5	134	111120436	9
344	Blomia tropicalis	Mite	Unassigned	Aero Mite	Blomia Blo t 5	134	111120450	9
345	Blomia	Mite	Unassigned	Aero Mite	Blomia Blo t 5	119	160285626	9

	tropicalis							
346	Bombus pennsylvanicus	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom p 1 phospholipase	136	47117013	12
347	Bombus pennsylvanicus	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom p 4 protease	243	75009997	12
348	Bombus terrestris	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom t 1	136	14423832	7
349	Bombus terrestris	Bumblebee	Unassigned	Venom or Salivary	Bombus Bom t 4 protease	20	313471465	12
350	Bombyx mori	Silkworm	Unassigned	Food insect	Bombyx arginine kinase	355	204324083	10
351	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	93	162650	7
352	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	214	162792	7
353	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	214	162794	7
354	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	76	162927	7
355	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	205	159793197	9
356	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	172	159793201	9
357	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s1 casein	129	159793217	9
358	Bos taurus	Bovine	Unassigned	Food Animal	Bos Alpha-s2-like casein	222	162929	7
359	Bos taurus	Bovine	Unassigned	Food Animal	Bos Beta-casein	224	162797	7
360	Bos taurus	Bovine	Unassigned	Food Animal	Bos Beta-casein	224	162805	7
361	Bos taurus	Bovine	Unassigned	Food Animal	Bos Beta-casein	224	162931	7
362	Bos taurus	Bovine	Unassigned	Food Animal	Bos Beta-casein	224	459292	7
363	Bos taurus	Bovine	Unassigned	Aero Animal	Bos Bos d 2	172	2497701	9
364	Bos taurus	Bovine	Bos d 3	Aero Animal	Bos Bos d 3	101	2493414	7
365	Bos taurus	Bovine	Bos d 4	Food Animal	Bos Bos d 4	142	295774	7
366	Bos taurus	Bovine	Unassigned	Food Animal	Bos Bos d 4	142	125996	9
367	Bos taurus	Bovine	Bos d 5	Food Animal	Bos Bos d 5	178	520	7
368	Bos taurus	Bovine	Unassigned	Food	Bos Bos d 5	14	162750	7

				Animal				
369	Bos taurus	Bovine	Unassigned	Food Animal	Bos Bos d 5	178	125910	9
370	Bos taurus	Bovine	Unassigned	Food Animal	Bos Bos d 5	178	195957138	10
371	Bos taurus	Bovine	Unassigned	Food Animal	Bos Bos d 6	607	3336842	7
372	Bos taurus	Bovine	Unassigned	Food Animal	Bos Bos d 6	607	1351907	10
373	Bos taurus	Bovine	Unassigned	Vaccine	Bos collagen alpha2	1364	27806257	11
374	Bos taurus	Bovine	Unassigned	Food Animal	Bos Kappa-casein	190	162811	7
375	Bos taurus	Bovine	Unassigned	Food Animal	Bos lactotransferrin	708	30794292	8
376	Brassica napus	Rape	Bra n 1	Food Plant	Bra n 1	125	75107016	9
377	Brassica juncea	Mustard	Bra j 1	Food Plant	Brassica Bra j 1 2S albumin	129	32363444	9
378	Brassica oleracea	Cabbage	Unassigned	Food Plant	Brassica Bra o 3 LTP manual entry	20	1	8
379	Brassica rapa subsp. rapa	Turnip	Unassigned	Contact	Brassica Bra r 2	91	32363456	9
380	Brassica napus	Rape	Unassigned	Aero Plant	Brassica Calcim binding protein Group I	79	59800143	7
381	Brassica rapa subsp. rapa	Turnip	Unassigned	Aero Plant	Brassica Calcim binding protein Group I	79	59800144	7
382	Brassica napus	Rape	Unassigned	Food Plant	Brassica napus 2S albumin	109	26985163	7
383	Brassica napus	Rape	Unassigned	Aero Plant	Brassica Polcalcin Group II	83	2129801	7
384	Brassica napus	Rape	Unassigned	Aero Plant	Brassica Polcalcin Group II	83	2129802	7
385	Brassica napus	Rape	Unassigned	Aero Plant	Brassica Polcalcin Group II	83	59800145	7
386	Brassica rapa	Turnip	Unassigned	Aero Plant	Brassica Polcalcin Group II	80	2129805	7
387	Brassica rapa subsp. rapa	Turnip	Unassigned	Aero Plant	Brassica Polcalcin Group II	83	59800146	7
388	Candida albicans	Yeast	Cand a 3	Contact	Candida Cand a 3	236	37548637	7
389	Candida albicans	Yeast	Unassigned	Contact	Candida Enolase 1	440	232054	7
390	Canis familiaris	Dog	Can f 1	Aero Animal	Canis Can f 1	174	3121745	7
391	Canis familiaris	Dog	Can f 2	Aero Animal	Canis Can f 2	180	3121746	7

392	Canis familiaris	Dog	Can f 2	Aero Animal	Canis Can f 2	177	29292272	7
393	Canis familiaris	Dog	Can f 2	Aero Animal	Canis Can f 2	179	29292274	7
394	Canis familiaris	Dog	Can f 3	Aero Animal	Canis Can f 3	265	633938	7
395	Canis familiaris	Dog	Can f 3	Aero Animal	Canis Can f 3	585	3319897	7
396	Canis familiaris	Dog	Can f 3	Aero Animal	Canis Can f 3	608	6687188	7
397	Canis familiaris	Dog	Unassigned	Aero Animal	Canis Can f epithelial 18 kDa	174	262232390	12
398	Capsicum annuum	Bell pepper	Cap a 2	Food Plant	Capsicum Cap a 2	131	16555785	7
399	Carica papaya	Papaya	Unassigned	Food Plant	Carica Car p 1	345	129614	9
400	Carpinus betulus	Hornbeam	Car b 1	Aero Plant	Carpinus Car b 1	159	402745	7
401	Carpinus betulus	Hornbeam	Car b 1	Aero Plant	Carpinus Car b 1	160	730048	7
402	Carpinus betulus	Hornbeam	Car b 1	Aero Plant	Carpinus Car b 1	160	730049	7
403	Carpinus betulus	Hornbeam	Car b 1.0103	Aero Plant	Carpinus Car b 1	160	1545875	7
404	Carpinus betulus	Hornbeam	Car b 1.0104	Aero Plant	Carpinus Car b 1	160	1545877	7
405	Carpinus betulus	Hornbeam	Car b 1.0104	Aero Plant	Carpinus Car b 1	160	1545879	7
406	Carpinus betulus	Hornbeam	Car b 1.0105	Aero Plant	Carpinus Car b 1	160	1545887	7
407	Carpinus betulus	Hornbeam	Car b 1	Aero Plant	Carpinus Car b 1	160	1545891	7
408	Carpinus betulus	Hornbeam	Car b 1.0108	Aero Plant	Carpinus Car b 1	160	1545893	7
409	Carpinus betulus	Hornbeam	Car b 1.0301	Aero Plant	Carpinus Car b 1	161	1545895	7
410	Carpinus betulus	Hornbeam	Car b 1.0302	Aero Plant	Carpinus Car b 1	161	1545897	7
411	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	40	239735	7
412	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	160	167472845	10
413	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	160	167472837	10
414	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	160	167472843	10
415	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	160	167472841	10
416	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	160	167472839	10
417	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	80	1008578	12
418	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	80	1008579	12
419	Carpinus betulus	Hornbeam	Unassigned	Aero Plant	Carpinus Car b 1	80	1008580	12

420	Castanea sativa	European chestnut	Cas s 1	Aero Plant	Castanea Cas s 1	160	16555781	7
421	Castanea sativa	European chestnut	Unassigned	Aero Plant	Castanea Cas s 1	159	212291466	10
422	Castanea sativa	European chestnut	Unassigned	Aero Plant	Castanea Cas s 1	159	212291464	10
423	Castanea sativa	European chestnut	Unassigned	Aero Plant	Castanea Cas s 1	159	212291468	10
424	Castanea sativa	European chestnut	Unassigned	Aero Plant	Castanea Cas s 5	298	307159110	12
425	Castanea sativa	European chestnut	Cas s 5	Food Plant	Castanea Cas s 5	316	1359600	7
426	Cavia porcellus	Domestic guinea pig	Cav p 1	Aero Animal	Cavia Cav p 1	15	32469617	7
427	Cavia porcellus	Domestic guinea pig	Unassigned	Aero Animal	Cavia Cav p 2	170	325910590	12
428	Cavia porcellus	Domestic guinea pig	Unassigned	Aero Animal	Cavia Cav p 3 lipocalin	170	325910592	12
429	Chamaecyparis obtusa	Japanese cypress	Unassigned	Aero Plant	Chamaecyparis Cha o 1	375	9087163	9
430	Chamaecyparis obtusa	Japanese cypress	Unassigned	Aero Plant	Chamaecyparis Cha o 2	514	47606004	7
431	Chamaecyparis obtusa	Japanese cypress	Unassigned	Aero Plant	Chamaecyparis Cha o 2	419	114841683	8
432	Charybdis feriatus	Crab	Cha f 1	Food Animal	Charybdis Cha f 1	264	14285800	9
433	Chenopodium album	Pigweed	Unassigned	Aero Plant	Chenopodium Che a 1	168	47605504	9
434	Chenopodium album	Pigweed	Che a 2	Aero Plant	Chenopodium Che a 2	131	29465666	7
435	Chenopodium album	Pigweed	Unassigned	Aero Plant	Chenopodium Che a 2	133	238886048	11
436	Chenopodium album	Pigweed	Che a 3	Aero Plant	Chenopodium Che a 3	86	29465668	7
437	Chionoecetes opilio	Snow Crab	Unassigned	Food Animal	Chionoecetes tropomyosin	284	308191588	12
438	Chironomus kiiensis	Midge	Unassigned	Aero Insect	Chironomus Chi k 10	285	42559556	9
439	Chironomus thummi thummi	Midge	Chi t 1.01	Aero Insect	Chironomus Chi t 1	151	121219	7
440	Chironomus thummi thummi	Midge	Chi t 1.02	Aero Insect	Chironomus Chi t 1	151	121227	7
441	Chironomus thummi thummi	Midge	Chi t 2	Aero Insect	Chironomus Chi t 2	158	2506460	7
442	Chironomus thummi thummi	Midge	Chi t 3	Aero Insect	Chironomus Chi t 3	160	1707908	7

443	Chironomus thummi thummi	Midge	Chi t 4	Aero Insect	Chironomus Chi t 4	151	121256	7
444	Chironomus thummi thummi	Midge	Chi t 5	Aero Insect	Chironomus Chi t 5	162	2506461	7
445	Chironomus thummi thummi	Midge	Chi t 7	Aero Insect	Chironomus Chi t 7	161	56405052	7
446	Chironomus thummi thummi	Midge	Chi t 7	Aero Insect	Chironomus Chi t 7	161	121244	7
447	Chironomus thummi thummi	Midge	Chi t 7	Aero Insect	Chironomus Chi t 7	161	56405054	7
448	Chironomus thummi thummi	Midge	Chi t 7	Aero Insect	Chironomus Chi t 7	161	121248	7
449	Chironomus thummi thummi	Midge	Chi t 7	Aero Insect	Chironomus Chi t 7	162	121249	7
450	Chironomus thummi thummi	Midge	Chi t 8	Aero Insect	Chironomus Chi t 8	151	121237	7
451	Chironomus thummi thummi	Midge	Chi t 9	Aero Insect	Chironomus Chi t 9	151	121259	7
452	Citrus sinensis	Navel orange	Unassigned	Food Plant	Citrus Cit s 1	25	52782810	7
453	Citrus sinensis	Navel orange	Unassigned	Food Plant	Citrus Cit s 2	131	261260074	11
454	Citrus limon	Lemon	Unassigned	Food Plant	Citrus LTP Cit s 3	20	52783176	7
455	Citrus sinensis	Navel orange	Unassigned	Food Plant	Citrus LTP Cit s 3	20	52783177	7
456	Citrus sinensis	Navel orange	Cit s 3	Food Plant	Citrus LTP Cit s 3	91	50199132	7
457	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Cla h 10	496	108935817	8
458	Davidiella tassiana	Fungus	Cla h 5	Aero Fungi	Cladosporium / Davidiella Cla h 5	111	1173074	7
459	Davidiella tassiana	Fungus	Cla h 5	Aero Fungi	Cladosporium / Davidiella Cla h 5	111	21542440	7
460	Davidiella tassiana	Fungus	Cla h 6	Aero Fungi	Cladosporium / Davidiella Cla h 6	440	467660	7
461	Davidiella tassiana	Fungus	Cla h 6	Aero Fungi	Cladosporium / Davidiella Cla h 6	440	6015094	7
462	Davidiella tassiana	Fungus	Cla h 7	Aero Fungi	Cladosporium / Davidiella Cla h 7	204	1168970	7
463	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Cla h 8	267	85701146	7
464	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Cla h 9 vacuolar serine	518	60116876	10
465	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Heat shock 70 kDa protei	643	729764	7
466	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Hydrophobin	105	22796153	7

467	Davidiella tassiana	Fungus	Unassigned	Aero Fungi	Cladosporium / Davidiella Putative nuclear transpo	125	21748151	7
468	Cladosporium cladosporioides		Unassigned	Aero Fungi	Cladosporium Cla c 9 Davidiella	388	148361511	11
469	Cochliobolus lunatus		Unassigned	Aero Fungi	Cochliobolus (Curvularia) Cur l 3 * ver 10	108	20137645	8
470	Cochliobolus lunatus		Cur l 2.01	Aero Fungi	Cochliobolus (Curvularia) enolase Cur l 2.01	440	14585753	8
471	Coprinus comatus	Shaggy mane	Cop c 1	Food Fungi	Coprinus Cop c 1	81	4538529	7
472	Corylus avellana	European hazelnut	Cor a 1.0103	Aero Plant	Corylus Cor a 1	160	22684	7
473	Corylus avellana	European hazelnut	Cor a 1.0104	Aero Plant	Corylus Cor a 1	160	22686	7
474	Corylus avellana	European hazelnut	Cor a 1.0102	Aero Plant	Corylus Cor a 1	160	22690	7
475	Corylus avellana	European hazelnut	Cor a 1.0201	Aero Plant	Corylus Cor a 1	160	1321731	7
476	Corylus avellana	European hazelnut	Cor a 1.0301	Aero Plant	Corylus Cor a 1	160	1321733	7
477	Corylus avellana	European hazelnut	Cor a I	Aero Plant	Corylus Cor a 1	160	584968	7
478	Corylus avellana	European hazelnut	Cor a 1.0401	Food Plant	Corylus Cor a 1	161	5726304	7
479	Corylus avellana	European hazelnut	Cor a 1.0402	Food Plant	Corylus Cor a 1	161	11762102	7
480	Corylus avellana	European hazelnut	Cor a 1.0403	Food Plant	Corylus Cor a 1	161	11762104	7
481	Corylus avellana	European hazelnut	Cor a 1.0404	Food Plant	Corylus Cor a 1	161	11762106	7
482	Corylus avellana	European hazelnut	Cor a 10	Aero Plant	Corylus Cor a 10	668	10944737	7
483	Corylus avellana	European hazelnut	Cor a 11	Food Plant	Corylus Cor a 11	448	19338630	7
484	Corylus avellana	European hazelnut	Unassigned	Food Plant	Corylus Cor a 14 2S albumin	147	226437844	11
485	Corylus avellana	European hazelnut	Cor a 2	Aero Plant	Corylus Cor a 2	131	12659206	7
486	Corylus avellana	European hazelnut	Cor a 2	Aero Plant	Corylus Cor a 2	131	12659208	7
487	Corylus avellana	European hazelnut	Cor a 8	Food Plant	Corylus Cor a 8	115	13507262	7
488	Corylus avellana	European hazelnut	Cor a 9	Food Plant	Corylus Cor a 9	515	18479082	7

489	Corylus avellana	European hazelnut	Unassigned	Food Plant	Corylus Oleosin	140	29170509	7
490	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 1 tropomyosin	284	238477263	12
491	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 2 arginine kinase	356	238477265	12
492	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 4 sarcoplasmic calcium-binding prote	193	238477327	12
493	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 5 myosin light chain	153	238477331	12
494	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 6 troponin C	150	238477333	12
495	Crangon crangon		Unassigned	Food Animal	Crangon Cra c 8 triosephosphate isomerase	249	238477329	12
496	Crassostrea gigas	American oyster	Unassigned	Food Animal	Crassostrea Tropomyosin	233	15419048	7
497	Crassostrea gigas	American oyster	Unassigned	Food Animal	Crassostrea Tropomyosin	284	219806594	10
498	Crassostrea virginica	Eastern oyster	Unassigned	Food Animal	Crassostrea Tropomyosin	160	3668408	7
499	Crocus sativus	Saffron crocus	Unassigned	Aero Plant	Crocus profilin Cros 2	131	58700651	7
500	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria class IV chitinase	281	56550550	7
501	Cryptomeria japonica	Japanese cedar	Cry j 1	Aero Plant	Cryptomeria Cry j 1	374	1173367	7
502	Cryptomeria japonica	Japanese cedar	Cry j 1	Aero Plant	Cryptomeria Cry j 1	374	19570315	7
503	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 1	374	493634	8
504	Cryptomeria japonica	Japanese cedar	Cry j 2	Aero Plant	Cryptomeria Cry j 2	514	1171004	7
505	Cryptomeria japonica	Japanese cedar	Cry j 2	Aero Plant	Cryptomeria Cry j 2	514	24898904	7
506	Cryptomeria japonica	Japanese cedar	Cry j 2	Aero Plant	Cryptomeria Cry j 2	514	24898906	7
507	Cryptomeria japonica	Japanese cedar	Cry j 2	Aero Plant	Cryptomeria Cry j 2	514	24898908	7
508	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841607	8
509	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841617	8
510	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841629	8

511	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841635	8
512	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841641	8
513	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841653	8
514	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841657	8
515	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841663	8
516	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841665	8
517	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	514	114841671	8
518	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Cry j 2	65	123299282	9
519	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria Isoflavone reductase-like protein	306	19847822	7
520	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria pollen allergen CJP-8	165	291621332	12
521	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria pollen allergen CPA63	472	293329689	12
522	Cryptomeria japonica	Japanese cedar	Unassigned	Aero Plant	Cryptomeria thaumatin like Cry j 3.8	225	139002766	8
523	Cucumis melo	Muskmelon	Unassigned	Food Plant	Cucumis Cuc m 1	731	71153243	9
524	Cucumis melo	Muskmelon	Cuc m 2	Food Plant	Cucumis Cuc m 2	131	31559374	7
525	Cucumis melo	Muskmelon	Cuc m 2	Food Plant	Cucumis Cuc m 2	131	58263793	7
526	Cucumis melo var. reticulatus	Netted muskmelon	Cuc m 2	Food Plant	Cucumis Cuc m 2	131	57021110	7
527	Cucumis melo	Muskmelon	Cuc m 3	Food Plant	Cucumis Cuc m 3	21	46396596	7
528	Cucumis melo	Muskmelon	Cuc m 3	Food Plant	Cucumis Cuc m 3	10	46396597	7
529	Cucumis melo	Muskmelon	Cuc m 3	Food Plant	Cucumis Cuc m 3	10	46396598	7
530	Cucumis melo var. inodorus	Muskmelon	Unassigned	Food Plant	Cucumis Cuc m 3	151	171464770	9
531	Cupressus arizonica	Arizona Cypress	Cup a 1	Aero Plant	Cupressus Cup a 1	367	19069497	7
532	Cupressus arizonica	Arizona Cypress	Unassigned	Aero Plant	Cupressus Cup a 1	347	118197955	8
533	Cupressus arizonica	Arizona Cypress	Unassigned	Aero Plant	Cupressus Cup a 1	346	9087167	9
534	Cupressus sempervirens	Mediterranean Cypress	Cup s 1.0101	Aero Plant	Cupressus Cup a 1	367	8101711	7

535	Cupressus sempervirens	Mediterranean Cypress	Cup s 1.0102	Aero Plant	Cupressus Cup a 1	367	8101713	7
536	Cupressus sempervirens	Mediterranean Cypress	Cup s 1.0103	Aero Plant	Cupressus Cup a 1	367	8101715	7
537	Cupressus sempervirens	Mediterranean Cypress	Cup s 1.0104	Aero Plant	Cupressus Cup a 1	367	8101717	7
538	Cupressus sempervirens	Mediterranean Cypress	Cup s 1.0105	Aero Plant	Cupressus Cup a 1	367	8101719	7
539	Cupressus arizonica	Arizona Cypress	Unassigned	Aero Plant	Cupressus Cup s 3	199	9929163	7
540	Cupressus sempervirens	Mediterranean Cypress	Unassigned	Aero Plant	Cupressus Cup s 3	225	38456230	7
541	Cupressus sempervirens	Mediterranean Cypress	Unassigned	Aero Plant	Cupressus Cup s 3	225	38456228	7
542	Cupressus arizonica	Arizona Cypress	Unassigned	Aero Plant	Cupressus putative allergen Cup a 4	165	261865475	11
543	Cynodon dactylon	Bermuda grass	Cyn d 1	Aero Plant	Cynodon Cyn d 1	25	451274	7
544	Cynodon dactylon	Bermuda grass	Cyn d 1	Aero Plant	Cynodon Cyn d 1	38	451275	7
545	Cynodon dactylon	Bermuda grass	Cyn d 1	Aero Plant	Cynodon Cyn d 1	34	691726	7
546	Cynodon dactylon	Bermuda grass	Cyn d 1.0204	Aero Plant	Cynodon Cyn d 1	244	10314021	7
547	Cynodon dactylon	Bermuda grass	Cyn d 1	Aero Plant	Cynodon Cyn d 1	246	14423757	7
548	Cynodon dactylon	Bermuda grass	Cyn d 1.0201	Aero Plant	Cynodon Cyn d 1	244	15384338	7
549	Cynodon dactylon	Bermuda grass	Cyn d 1.0202	Aero Plant	Cynodon Cyn d 1	262	16076693	7
550	Cynodon dactylon	Bermuda grass	Cyn d 1	Aero Plant	Cynodon Cyn d 1	262	16076695	7
551	Cynodon dactylon	Bermuda grass	Cyn d 1.0203	Aero Plant	Cynodon Cyn d 1	262	16076697	7
552	Cynodon dactylon	Bermuda grass	Cyn d 12	Aero Plant	Cynodon Cyn d 12	131	2154730	7
553	Cynodon dactylon	Bermuda grass	Unassigned	Aero Plant	Cynodon Cyn d 7	71	1247373	7
554	Cynodon dactylon	Bermuda grass	Unassigned	Aero Plant	Cynodon Cyn d 7	73	1247375	7
555	Cynodon dactylon	Bermuda grass	Cyn d 7	Aero Plant	Cynodon Cyn d 7	82	1871507	7
556	Cyprinus carpio	Carp	Unassigned	Food Animal	Cyprinus Parvalbumin	109	17977825	7
557	Cyprinus carpio	Carp	Unassigned	Food Animal	Cyprinus Parvalbumin	109	17977827	7
558	Dactylis glomerata	Orchard grass	Dac g 1	Aero Plant	Dactylis Dac g 1	264	18093991	7
559	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 1	240	33149333	7
560	Dactylis glomerata	Orchard grass	Dac g 2	Aero Plant	Dactylis Dac g 2	196	1093120	7

561	Dactylis glomerata	Orchard grass	Dac g 2	Aero Plant	Dactylis Dac g 2	122	4007040	7
562	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 3	96	14423759	8
563	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 4	12	32363464	7
564	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 4	11	32363465	7
565	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 4	17	32363466	7
566	Dactylis glomerata	Orchard grass	Unassigned	Aero Plant	Dactylis Dac g 4	15	32363467	7
567	Dactylis glomerata	Orchard grass	Dac g 5	Aero Plant	Dactylis Dac g 5	290	14423124	7
568	Dactylis glomerata	Orchard grass	Dac g 5	Aero Plant	Dactylis Dac g 5	265	18093971	7
569	Daucus carota	Carrot	Dau c 1.0101	Food Plant	Daucus Dau c 1	168	1335877	7
570	Daucus carota	Carrot	Dau c 1.0102	Food Plant	Daucus Dau c 1	154	1663522	7
571	Daucus carota	Carrot	Dau c 1.0103	Food Plant	Daucus Dau c 1	154	2154732	7
572	Daucus carota	Carrot	Dau c 1.0104	Food Plant	Daucus Dau c 1	154	2154734	7
573	Daucus carota	Carrot	Dau c 1.0201	Food Plant	Daucus Dau c 1	154	18652047	7
574	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	19912791	7
575	Daucus carota	Carrot	Dau c 1.0105	Food Plant	Daucus Dau c 1	154	8928058	9
576	Daucus carota	Carrot	Dau c 1.0301	Food Plant	Daucus Dau c 1	154	302379147	12
577	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379149	12
578	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379151	12
579	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379153	12
580	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379155	12
581	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379157	12
582	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 1	154	302379159	12
583	Daucus carota	Carrot	Unassigned	Food Plant	Daucus Dau c 4	134	47606043	10
584	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der f 13	131	99031759	7
585	Dermatophagoides farinae	House dust mite	Der f 16	Aero Mite	Dermatophagoides Der f 16	480	21591547	7
586	Dermatophagoides farinae	House dust mite	Der f 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	321	730035	7

587	Dermatophagoides farinae	House dust mite	Der f 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	321	27530349	7
588	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	276	76097507	7
589	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	321	156106765	9
590	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	263	37958161	12
591	Dermatophagoides microceras	House dust mite	Der m 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	30	127205	7
592	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	320	730036	7
593	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725560	7
594	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725562	7
595	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725564	7
596	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725566	7
597	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725568	7
598	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725570	7
599	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725572	7
600	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725574	7
601	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725576	7
602	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725578	7
603	Dermatophagoides pteronyssinus	House dust mite	Der p 1	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	21725580	7
604	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	216	61608445	7
605	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	83754033	7
606	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	211	1460058	8
607	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	223	157696052	9
608	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	222	223365887	10
609	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	320	195933901	10

610	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	302	256095986	11
611	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 1 Der f 1	96	387592	11
612	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 10 / Der f 10	284	42559584	9
613	Dermatophagoides pteronyssinus	House dust mite	Der p 10	Aero Mite	Dermatophagoides Der p 10 / Der f 10	284	2353266	7
614	Dermatophagoides pteronyssinus	House dust mite	Der p 10	Aero Mite	Dermatophagoides Der p 10 / Der f 10	284	2440053	7
615	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 10 / Der f 10	281	80553470	7
616	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 10 / Der f 10	284	208970286	10
617	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 11 / Der f 11	692	42559514	9
618	Dermatophagoides pteronyssinus	House dust mite	Der p 11	Aero Mite	Dermatophagoides Der p 11 / Der f 11	875	37778944	7
619	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 13	131	302035350	12
620	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 14 / Der f 14	341	729979	7
621	Dermatophagoides farinae	House dust mite	Der f 14	Aero Mite	Dermatophagoides Der p 14 / Der f 14	349	1545803	7
622	Dermatophagoides pteronyssinus	House dust mite	Der p 14	Aero Mite	Dermatophagoides Der p 14 / Der f 14	1662	20385544	7
623	Dermatophagoides farinae	House dust mite	Der f 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	138	217308	7
624	Dermatophagoides farinae	House dust mite	Der f 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	142	546852	7
625	Dermatophagoides farinae	House dust mite	Der f 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	17978844	7
626	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	55859470	7
627	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	55859468	7
628	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	55859466	7
629	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	76097511	7
630	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	175	156480837	9
631	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	218203834	10
632	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	256631558	11

633	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	140	37958157	12
634	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	1352237	7
635	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21465915	7
636	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725582	7
637	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725584	7
638	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725586	7
639	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725588	7
640	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725590	7
641	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725592	7
642	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725594	7
643	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725596	7
644	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725600	7
645	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725602	7
646	Dermatophagoides pteronyssinus	House dust mite	Der p 2	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	21725604	7
647	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	76097509	7
648	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	99644635	7
649	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	130	110560872	9
650	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	157829757	9
651	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	145	164415595	9
652	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	129	256095984	11
653	Dermatophagoides siboney	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 2 / Der f 2	146	86450747	7
654	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 21	140	85687540	7
655	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	232	1314736	7

656	Dermatophagoides farinae	House dust mite	Der f 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	2507248	7
657	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	163638970	9
658	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203816	10
659	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 3 / Der f 3	259	218203818	10
660	Dermatophagoides pteronyssinus	House dust mite	Der p 3	Aero Mite	Dermatophagoides Der p 3 / Der f 3	261	511476	7
661	Dermatophagoides pteronyssinus	House dust mite	Der p 4	Aero Mite	Dermatophagoides Der p 4	496	5059162	7
662	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 4	19	1351935	7
663	Dermatophagoides pteronyssinus	House dust mite	Der p 5	Aero Mite	Dermatophagoides Der p 5	132	1352238	7
664	Dermatophagoides pteronyssinus	House dust mite	Der p 5	Aero Mite	Dermatophagoides Der p 5	132	913285	7
665	Dermatophagoides pteronyssinus	House dust mite	Der p 5	Aero Mite	Dermatophagoides Der p 5	132	28798085	7
666	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	14424450	7
667	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	20	404371	7
668	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203826	10
669	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 6 / Der f 6	279	218203828	10
670	Dermatophagoides pteronyssinus	House dust mite	Der p 6	Aero Mite	Dermatophagoides Der p 6 / Der f 6	20	1352239	7
671	Dermatophagoides farinae	House dust mite	Der f 7	Aero Mite	Dermatophagoides Der p 7 / Der f 7	213	2498299	7
672	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 7 / Der f 7	213	37958165	8
673	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 7 / Der f 7	213	218203832	10
674	Dermatophagoides pteronyssinus	House dust mite	Der p 7	Aero Mite	Dermatophagoides Der p 7 / Der f 7	215	10189811	7
675	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 7 / Der f 7	215	1352240	9
676	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 8	219	60920878	7
677	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides Der p 8	219	1170095	9
678	Dermatophagoides farinae	House dust mite	Der f 18	Aero Mite	Dermatophagoides farinae Der f 18	462	27550039	7

					Der p chitinase			
679	Dermatophagoides pteronyssinus	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 18 Der p chitinase	462	67975085	7
680	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	60679572	9
681	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089314	9
682	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089316	9
683	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089320	9
684	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089322	9
685	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089324	9
686	Dermatophagoides farinae	House dust mite	Unassigned	Aero Mite	Dermatophagoides farinae Der f 21 Chew	136	140089326	9
687	Dolichovespula maculata	Whiteface hornet	Dol m 1	Venom or Salivary	Dolichovespula Dol m 1	317	548449	7
688	Dolichovespula maculata	Whiteface hornet	Dol m 1	Venom or Salivary	Dolichovespula Dol m 1	303	1709542	7
689	Dolichovespula maculata	Whiteface hornet	Dol m 2	Venom or Salivary	Dolichovespula Dol m 2	331	1346322	7
690	Dolichovespula arenaria	Yellow jacket	Dol a 5	Venom or Salivary	Dolichovespula Venom allergen 5	203	465052	7
691	Dolichovespula maculata	Whiteface hornet	Dol m 5	Venom or Salivary	Dolichovespula Venom allergen 5	227	137395	7
692	Dolichovespula maculata	Whiteface hornet	Dol m 5	Venom or Salivary	Dolichovespula Venom allergen 5	215	549186	7
693	Epicoccum nigrum	Fungus	Unassigned	Aero Fungi	Epicoccum Epi p 1	18	24636820	9
694	Equus caballus	Horse	Equ c 1	Aero Animal	Equus Equ c 1	187	3121758	7
695	Equus caballus	Horse	Equ c 2.0101	Aero Animal	Equus Equ c 2	29	3121755	7
696	Equus caballus	Horse	Equ c 2.0102	Aero Animal	Equus Equ c 2	19	3121756	7
697	Equus caballus	Horse	Unassigned	Aero Animal	Equus Equ c 3	607	543794	9
698	Equus caballus	Horse	Unassigned	Aero Animal	Equus Equ c 4	228	38258932	8

699	Equus caballus	Horse	Unassigned	Aero Animal	Equus Equ c 4	228	152031631	9
700	Erimacrus isenbeckii		Unassigned	Food Animal	Erimacrus tropomyosin	284	125995169	8
701	Erimacrus isenbeckii		Unassigned	Food Animal	Erimacrus tropomyosin	284	125995171	8
702	Euphausia pacifica		Unassigned	Food Animal	Euphausia	284	156712754	9
703	Euphausia superba		Unassigned	Food Animal	Euphausia	284	156712752	9
704	Euroglyphus maynei	House dust mite	Eur m 2.0102	Aero Mite	Euroglyphus Eur m 2	135	3941386	7
705	Euroglyphus maynei	House dust mite	Eur m 2	Aero Mite	Euroglyphus Eur m 2	145	14423649	7
706	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum BW 16kDa allergen	127	61970231	7
707	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum BW 16kDa allergen	149	83416591	7
708	Fagopyrum tataricum	Buckwheat	Unassigned	Food Plant	Fagopyrum BW 16kDa allergen	149	320445237	12
709	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum BW 8 kDa protein	133	17907758	7
710	Fagopyrum tataricum	Buckwheat	Unassigned	Food Plant	Fagopyrum BW 8 kDa protein	133	144228127	8
711	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum Legumin-like protein	565	29839254	9
712	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum Legumin-like protein	504	29839255	9
713	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum Legumin-like protein	538	29839419	9
714	Fagopyrum gracilipes	Buckwheat	Unassigned	Food Plant	Fagopyrum Legumin-like protein	191	6979766	7
715	Fagopyrum tataricum	Buckwheat	Unassigned	Food Plant	Fagopyrum Legumin-like protein	515	113200131	9
716	Fagopyrum esculentum	Buckwheat	Unassigned	Food Plant	Fagopyrum vicilin-like protein	136	146217148	9
717	Fagus sylvatica	European Beech	Unassigned	Aero Plant	Fagus Fag s 1	160	212291472	10
718	Fagus sylvatica	European Beech	Fag s 1	Aero Plant	Fagus Fag s 1	160	212291470	10
719	Fagus sylvatica	European Beech	Unassigned	Aero Plant	Fagus Fag s 1	160	212291474	10

720	Farfantepenaeus aztecus	Brown shrimp	Pen a 1	Food Animal	Farfantepenaeus Pen a 1	284	73532979	7
721	Felis catus	Cat	Fel d 1	Aero Animal	Felis Fel d 1 Chain 1	88	1364212	7
722	Felis catus	Cat	Fel d 1	Aero Animal	Felis Fel d 1 Chain 1	92	1364213	7
723	Felis catus	Cat	Fel d 1	Aero Animal	Felis Fel d 1 Chain 1	92	1169665	7
724	Felis catus	Cat	Fel d 1	Aero Animal	Felis Fel d 1 Chain 1	92	163825	7
725	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 1 Chain 1	88	114326420	8
726	Felis catus	Cat	Fel d 1	Aero Animal	Felis Fel d 1 chain 2	109	232086	7
727	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 1 chain 2	107	395407	8
728	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 2	608	1351908	9
729	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 3	98	47605720	9
730	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 4	186	75062228	8
731	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 7 von Ebner gland protein	180	301072397	12
732	Felis catus	Cat	Unassigned	Aero Animal	Felis Fel d 8 latherin-like	228	303387468	12
733	Schedonorus arundinaceus	Tall fescue	Unassigned	Aero Plant	Festuca group 1 allergen	35	75139991	7
734	Schedonorus arundinaceus	Tall fescue	Unassigned	Aero Plant	Festuca group 1 allergen	17	320610	7
735	Schedonorus arundinaceus	Tall fescue	Unassigned	Aero Plant	Festuca group 1 allergen	20	320611	7
736	Forcipomyia taiwana	biting midges	Unassigned	Venom or Salivary	Forcipomyia For t 1	118	188572341	10
737	Forcipomyia taiwana	biting midges	Unassigned	Venom or Salivary	Forcipomyia For t 2	325	188572343	10
738	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	14	60389904	7
739	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	74	60389905	7
740	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	160	90185692	7
741	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	159	90185688	7
742	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	160	90185684	7

743	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	160	90185682	7
744	Fragaria x ananassa	Strawberry	Fra a 1	Food Plant	Fragaria Fra a 1	160	88082485	7
745	Fraxinus excelsior	European ash	Fra e 1	Aero Plant	Fraxinus Fra e 1	146	34978692	7
746	Fraxinus excelsior	European ash	Fra e 1	Aero Plant	Fraxinus Fra e 1	145	56122438	7
747	Fraxinus excelsior	European ash	Fra e 1	Aero Plant	Fraxinus Fra e 1	145	33327133	7
748	Fulvia mutica		Unassigned	Food Animal	Fulvia tropomyosin	284	219806596	10
749	Fusarium culmorum	Fungus	Unassigned	Aero Fungi	Fusarium claimed Fus c 3	450	25361513	7
750	Fusarium culmorum	Fungus	Unassigned	Aero Fungi	Fusarium Fus c 1	109	41688715	10
751	Fusarium culmorum	Fungus	Unassigned	Aero Fungi	Fusarium Fus c 2	121	52783462	9
752	Gadus callarias	Baltic cod	Gad c 1	Food Animal	Gadus Gad c 1	113	131112	7
753	Gadus morhua	Atlantic cod	Unassigned	Food Animal	Gadus Gad c 1	109	14531014	7
754	Gadus morhua	Atlantic cod	Unassigned	Food Animal	Gadus Gad c 1	109	14531016	7
755	Gadus morhua	Atlantic cod	Unassigned	Food Animal	Gadus Gad c 1	109	148356691	9
756	Gadus morhua	Atlantic cod	Unassigned	Food Animal	Gadus Gad c 1	109	148356693	9
757	Gallus gallus	Chicken	Gal d 1	Food Animal	Gallus Gal d 1	210	124757	7
758	Gallus gallus	Chicken	Unassigned	Food Animal	Gallus Gal d 1	208	162952006	9
759	Gallus gallus	Chicken	Unassigned	Food Animal	Gallus Gal d 1	210	209979542	10
760	Gallus gallus	Chicken	Gal d 2	Food Animal	Gallus Gal d 2	155	63052	7
761	Gallus gallus	Chicken	Gal d 2	Food Animal	Gallus Gal d 2	386	129293	7
762	Gallus gallus	Chicken	Gal d 2	Food Animal	Gallus Gal d 2	386	808969	7
763	Gallus gallus	Chicken	Gal d 2	Food Animal	Gallus Gal d 2	385	15826578	7
764	Gallus gallus	Chicken	Unassigned	Food Animal	Gallus Gal d 2	385	34811333	7
765	Gallus gallus	Chicken	Gal d 3	Food Animal	Gallus Gal d 3	705	757851	7

766	Gallus gallus	Chicken	Gal d 3	Food Animal	Gallus Gal d 3	705	1351295	7
767	Gallus gallus	Chicken	Gal d 4	Food Animal	Gallus Gal d 4	147	126608	7
768	Gallus gallus	Chicken	Gal d 4	Food Animal	Gallus Gal d 4	24	212279	7
769	Gallus gallus	Chicken	Unassigned	Food Animal	Gallus Gal d 5	615	113575	9
770	Gallus gallus	Chicken	Unassigned	Food Animal	Gallus parvalbumin	110	225877920	10
771	Gibberella zeae PH-1	Fungus	Unassigned	Aero Fungi	Gibberella 60S acidic ribosomal protein P2	109	46122455	7
772	Glossina morsitans morsitans	Tsetse fly	Unassigned	Venom or Salivary	Glossina Glo m 5	258	289740263	11
773	Glossina morsitans morsitans	Tsetse fly	Unassigned	Venom or Salivary	Glossina Glo m 5	259	289742475	11
774	Glossina morsitans morsitans	Tsetse fly	Unassigned	Venom or Salivary	Glossina Glo m 5	222	289742483	11
775	Glossina morsitans morsitans	Tsetse fly	Unassigned	Venom or Salivary	Glossina Glo m 5	259	8927462	11
776	Glycine max	Soybean	Unassigned	Food Plant	Gly m 5 Glycine Beta-conglycinin	605	18536	7
777	Glycine max	Soybean	Unassigned	Food Plant	Gly m 5 Glycine Beta-conglycinin	218	169927	7
778	Glycine max	Soybean	Unassigned	Food Plant	Gly m 5 Glycine Beta-conglycinin	639	169929	7
779	Glycine max	Soybean	Unassigned	Food Plant	Gly m 5 Glycine Beta-conglycinin	439	256427	7
780	Glycine max	Soybean	Gly m 1.0101	Aero Plant	Glycine Gly m 1	42	999355	7
781	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m 1	134	76782247	7
782	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m 1	119	76782249	7
783	Glycine max	Soybean	Gly m 2	Aero Plant	Glycine Gly m 2	20	1362049	7
784	Glycine max	Soybean	Gly m 3	Food Plant	Glycine Gly m 3	131	3021373	7
785	Glycine max	Soybean	Gly m 3	Food Plant	Glycine Gly m 3	131	3914435	7
786	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m 3	131	156938901	9
787	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m 4	158	134194	9
788	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 28K	473	12697782	7
789	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 28K	373	187766751	10

790	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 28K	373	187766749	10
791	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 28K	373	187766747	10
792	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 28K	455	187766755	10
793	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 30kDa	379	129353	7
794	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 30kDa	379	1199563	7
795	Glycine max	Soybean	Unassigned	Food Plant	Glycine Gly m Bd 30kDa	379	3097321	7
796	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G1	495	18615	7
797	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G1	495	18635	7
798	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G2	485	18609	7
799	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G2	485	18637	7
800	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G3	481	18639	7
801	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G4	562	18641	7
802	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G4	562	732706	7
803	Glycine soja	Soybean	Unassigned	Food Plant	Glycine Glycinin G4	563	806556	7
804	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G5	516	169969	7
805	Glycine max	Soybean	Unassigned	Food Plant	Glycine Glycinin G5	240	169971	7
806	Glycine soja	Soybean	Unassigned	Food Plant	Glycine Glycinin G5	517	736002	7
807	Glycine max	Soybean	Unassigned	Food Plant	Glycine Major Gly 50 kDa allergen	17	85681057	7
808	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	217	18770	7
809	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	217	18772	7
810	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	216	256429	7
811	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	203	256635	7
812	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	204	256636	7
813	Glycine max	Soybean	Unassigned	Food Plant	Glycine Trypsin inhibitor	208	510515	7
814	Glycyphagus domesticus	Storage mite	Unassigned	Aero Mite	Glycyphagus Gly d 2	141	33772588	7
815	Glycyphagus domesticus	Storage mite	Unassigned	Aero Mite	Glycyphagus Gly d 2	125	48428170	9
816	Glycyphagus	Storage mite	Unassigned	Aero Mite	Glycyphagus Gly d 2	128	48428178	9

	domesticus							
817	Haliotis discus discus	Disk abalone	Unassigned	Food Animal	Haliotis Hal m 1 tropomyosin	284	219806586	10
818	Haliotis diversicolor	Abalone	Unassigned	Food Animal	Haliotis Hal m 1 tropomyosin	284	9954249	7
819	Haliotis discus discus	Disk abalone	Unassigned	Food Animal	Haliotis paramyosin	860	318609972	12
820	Helianthus annuus	Sunflower	Hel a 2	Aero Plant	Helianthus Hel a 2	133	3581965	7
821	Helianthus annuus	Sunflower	Unassigned	Food Plant	Helianthus Seed 2S albumin	141	112745	9
822	Helix aspersa	Brown garden snail	Unassigned	Food Animal	Helix Hel as 1 tropomyosin	284	42559558	9
823	Hevea brasiliensis	Para rubber tree	Hev b 1	Contact	Hevea Hev b 1	138	132270	7
824	Hevea brasiliensis	Para rubber tree	Hev b 10.0101	Contact	Hevea Hev b 10	233	348137	7
825	Hevea brasiliensis	Para rubber tree	Hev b 10.0102	Contact	Hevea Hev b 10	205	5777414	7
826	Hevea brasiliensis	Para rubber tree	Hev b 10.0103	Contact	Hevea Hev b 10	205	10862818	7
827	Hevea brasiliensis	Para rubber tree	Hev b 11	Contact	Hevea Hev b 11	295	14575525	7
828	Hevea brasiliensis subsp. brasiliensis	Para rubber tree	Hev b 11	Contact	Hevea Hev b 11	295	27526732	7
829	Hevea brasiliensis	Para rubber tree	Hev b 12	Contact	Hevea Hev b 12	116	20135538	7
830	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 13	391	51315784	9
831	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 14 hevamine	208	313870530	12
832	Hevea brasiliensis	Para rubber tree	Hev b 2	Contact	Hevea Hev b 2	374	1184668	7
833	Hevea brasiliensis	Para rubber tree	Hev b 2	Contact	Hevea Hev b 2	374	32765543	7
834	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	124294783	8
835	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	124294785	8
836	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	124365249	8
837	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	124365251	8
838	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	124365253	8

839	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	316	261824817	11
840	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	268037674	11
841	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 2	374	270315180	11
842	Hevea brasiliensis	Para rubber tree	Hev b 3	Contact	Hevea Hev b 3	204	14423933	7
843	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 4	366	46410859	7
844	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 5	151	7387766	8
845	Hevea brasiliensis	Para rubber tree	Hev b 6	Contact	Hevea Hev b 6	204	123062	7
846	Hevea brasiliensis	Para rubber tree	Hev b 6	Contact	Hevea Hev b 6	187	2832430	7
847	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 6	43	73535415	7
848	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 6	204	158342650	9
849	Hevea brasiliensis	Para rubber tree	Hev b 7.01	Contact	Hevea Hev b 7	388	1916805	7
850	Hevea brasiliensis	Para rubber tree	Hev b 7.02	Contact	Hevea Hev b 7	388	3087805	7
851	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 7	388	3288200	7
852	Hevea brasiliensis	Para rubber tree	Hev b 7	Contact	Hevea Hev b 7	388	6707018	7
853	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 7	387	41581137	7
854	Hevea brasiliensis	Para rubber tree	Hev b 8	Contact	Hevea Hev b 8	131	3183706	7
855	Hevea brasiliensis	Para rubber tree	Hev b 8	Contact	Hevea Hev b 8	131	11513601	7
856	Hevea brasiliensis	Para rubber tree	Hev b 8.0204	Contact	Hevea Hev b 8	131	14423856	7
857	Hevea brasiliensis	Para rubber tree	Hev b 8.0203	Contact	Hevea Hev b 8	131	14423858	7
858	Hevea brasiliensis	Para rubber tree	Hev b 8.0202	Contact	Hevea Hev b 8	131	14423859	7
859	Hevea brasiliensis	Para rubber tree	Hev b 8.0201	Contact	Hevea Hev b 8	131	14423860	7
860	Hevea brasiliensis	Para rubber tree	Hev b 8.0102	Contact	Hevea Hev b 8	131	14423868	7
861	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 9	445	14423687	9

862	Hevea brasiliensis	Para rubber tree	Unassigned	Contact	Hevea Hev b 9	445	14423688	9
863	Holcus lanatus	Velvet grass	Unassigned	Aero Plant	Holcus group V	240	2266623	7
864	Holcus lanatus	Velvet grass	Unassigned	Aero Plant	Holcus group V	264	2266625	7
865	Holcus lanatus	Velvet grass	Unassigned	Aero Plant	Holcus group V	296	11991229	7
866	Holcus lanatus	Velvet grass	Hol l 1.0102	Aero Plant	Holcus Hol l 1	248	1167836	7
867	Holcus lanatus	Velvet grass	Unassigned	Aero Plant	Holcus Hol l 1	263	3860384	7
868	Holcus lanatus	Velvet grass	Unassigned	Aero Plant	Holcus Hol l 1	265	1171005	9
869	Homarus americanus	American lobster	Unassigned	Food Animal	Homarus Tropomyosin	284	2660868	7
870	Homarus americanus	American lobster	Unassigned	Food Animal	Homarus Tropomyosin	284	14285796	7
871	Hordeum vulgare subsp. vulgare	Barley	Unassigned	Aero Plant	Hordeum Alpha-amylase inhibitor BDAI-1	152	3367714	7
872	Hordeum vulgare subsp. vulgare	Barley	Unassigned	Aero Plant	Hordeum Alpha-amylase inhibitor component Cma	144	18955	7
873	Hordeum vulgare subsp. vulgare	Barley	Unassigned	Aero Plant	Hordeum Alpha-amylase inhibitor component Cma	145	439275	7
874	Hordeum vulgare	Barley	Unassigned	Aero Plant	Hordeum Alpha-amylase inhibitor component CMb	149	585290	7
875	Hordeum vulgare	Barley	Hor v 15	Aero Plant	Hordeum Hor v 15	146	2506771	7
876	Hordeum vulgare	Barley	Unassigned	Aero Plant	Hordeum LTP 1	117	167077	7
877	Hordeum vulgare	Barley	Unassigned	Food Plant	Hordeum LTP 1	134	19039	7
878	Hordeum vulgare	Barley	Unassigned	Aero Plant	Hordeum Trypsin inhibitor CMe	144	1405736	7
879	Hordeum vulgare subsp. vulgare	Barley	Unassigned	Aero Plant	Hordeum Trypsin inhibitor CMe	148	19009	7
880	Humulus japonicus	Japanese hop	Hum j 1	Aero Plant	Humulus Humj1	155	33113263	7
881	Humulus scandens	Japanese hop	Unassigned	Aero Plant	Humulus profilin-like protein	131	34851176	7
882	Humulus scandens	Japanese hop	Unassigned	Aero Plant	Humulus profilin-like protein	131	34851174	7
883	Juglans nigra	Black walnut	Jug n 1	Food Plant	Juglans Jug r 1	161	31321942	7
884	Juglans regia	English walnut	Jug r 1	Food Plant	Juglans Jug r 1	139	1794252	7

885	Juglans nigra	Black walnut	Jug n 2	Food Plant	Juglans Jug r 2	481	31321944	7
886	Juglans regia	English walnut	Jug r 2	Food Plant	Juglans Jug r 2	593	6580762	7
887	Juglans regia	English walnut	Unassigned	Food Plant	Juglans Jug r 3	119	209484145	11
888	Juglans regia	English walnut	Unassigned	Food Plant	Juglans Jug r 4 seed storage protein	507	56788031	7
889	Juniperus ashei	Mountain cedar	Unassigned	Aero Plant	Juniperus Jun a 2	507	47606048	9
890	Juniperus ashei	Mountain cedar	Unassigned	Aero Plant	Juniperus Jun a 3	225	9087177	8
891	Juniperus rigida	Cedar	Unassigned	Aero Plant	Juniperus Jun a 3	225	38456224	7
892	Juniperus rigida	Cedar	Unassigned	Aero Plant	Juniperus Jun a 3	225	38456222	7
893	Juniperus virginiana	Red cedar	Unassigned	Aero Plant	Juniperus Jun a 3	110	51316532	7
894	Juniperus ashei	Mountain cedar	Unassigned	Aero Plant	Juniperus Jun a/v 1	367	9087152	9
895	Juniperus oxycedrus	Juniper	Unassigned	Aero Plant	Juniperus Jun a/v 1	367	15139849	7
896	Juniperus virginiana	Red cedar	Jun v 1	Aero Plant	Juniperus Jun a/v 1	367	8843917	7
897	Juniperus virginiana	Red cedar	Jun v 1	Aero Plant	Juniperus Jun a/v 1	367	8843921	7
898	Juniperus oxycedrus	Juniper	Unassigned	Aero Plant	Juniperus Jun o 4	165	14423843	8
899	Lens culinaris	Lentil	Len c 1.0101	Food Plant	Lens Len c 1	418	29539109	7
900	Lens culinaris	Lentil	Len c 1.0102	Food Plant	Lens Len c 1	415	29539111	7
901	Lepidoglyphus destructor	Storage mite	Lep d 10	Aero Mite	Lepidoglyphus Lep d 10	284	14423956	7
902	Lepidoglyphus destructor	Storage mite	Lep d 13	Aero Mite	Lepidoglyphus Lep d 13	131	14423714	7
903	Lepidoglyphus destructor	Storage mite	Lep d 2	Aero Mite	Lepidoglyphus Lep d 2	141	2147108	7
904	Lepidoglyphus destructor	Storage mite	Lep d 2	Aero Mite	Lepidoglyphus Lep d 2	141	21213898	7
905	Lepidoglyphus destructor	Storage mite	Lep d 2	Aero Mite	Lepidoglyphus Lep d 2	141	21213900	7
906	Lepidoglyphus destructor	Storage mite	Lep d 2	Aero Mite	Lepidoglyphus Lep d 2	141	1582223	7
907	Lepidoglyphus destructor	Storage mite	Lep d 2	Aero Mite	Lepidoglyphus Lep d 2	141	1582222	7
908	Lepidoglyphus	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d	141	34495274	7

	destructor				2			
909	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495278	7
910	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	140	34495280	7
911	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495282	7
912	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495284	7
913	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495286	7
914	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495288	7
915	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	34495290	7
916	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 2	141	1708793	9
917	Lepidoglyphus destructor	Storage mite	Lep d 5	Aero Mite	Lepidoglyphus Lep d 5	110	14423651	7
918	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 5	171	34495292	7
919	Lepidoglyphus destructor	Storage mite	Unassigned	Aero Mite	Lepidoglyphus Lep d 5	169	34495294	7
920	Lepidoglyphus destructor	Storage mite	Lep d 7	Aero Mite	Lepidoglyphus Lep d 7	216	14423650	7
921	Lepidorhombus whiffiagonis		Unassigned	Food Animal	Lepidorhombus Lep w 1 parvalbumin	109	208608078	10
922	Lepisma saccharina	Silverfish	Lep s 1	Aero Insect	Lepisma Tropomyosin	284	20387027	7
923	Lepisma saccharina	Silverfish	Unassigned	Aero Insect	Lepisma Tropomyosin	243	20387029	7
924	Ligustrum vulgare	Privet	Lig v 1.0102	Aero Plant	Ligustrum Lig v 1	145	3256212	7
925	Ligustrum vulgare	Privet	Unassigned	Aero Plant	Ligustrum Lig v 1	145	14423737	8
926	Lilium longiflorum	Trumpet lily	Unassigned	Aero Plant	Lilium polygalacturonase	413	73913442	8
927	Litchi chinensis	Lychee nut	Lit c 1	Food Plant	Litchi Lit c 1	131	15809696	7
928	Litchi chinensis	Lychee nut	Unassigned	Food Plant	Litchi Lit c 1	131	83317152	7
929	Litopenaeus vannamei		Unassigned	Food Animal	Litopenaeus Lit v 4 sarcoplasmic Ca+ binding	193	223403273	11
930	Litopenaeus vannamei		Unassigned	Food Animal	Litopenaeus Lit v 2	356	115492980	8
931	Litopenaeus vannamei		Unassigned	Food Animal	Litopenaeus Lit v 3 myosin	177	184198734	10

932	Lolium perenne	Perennial ryegrass	Lol p 1	Aero Plant	Lolium Lol p 1	263	126385	7
933	Lolium perenne	Perennial ryegrass	Lol p 1	Aero Plant	Lolium Lol p 1	252	168314	7
934	Lolium perenne	Perennial ryegrass	Lol p 1	Aero Plant	Lolium Lol p 1	263	75274600	7
935	Lolium perenne	Perennial ryegrass	Unassigned	Aero Plant	Lolium Lol p 1	263	168316	10
936	Lolium perenne	Perennial ryegrass	Lol p 11	Aero Plant	Lolium Lol p 11	134	47605808	7
937	Lolium perenne	Perennial ryegrass	Lol p 2	Aero Plant	Lolium Lol p 2	97	126386	7
938	Lolium perenne	Perennial ryegrass	Lol p 2	Aero Plant	Lolium Lol p 2	88	939932	7
939	Lolium perenne	Perennial ryegrass	Lol p 3	Aero Plant	Lolium Lol p 3	97	126387	7
940	Lolium perenne	Perennial ryegrass	Unassigned	Aero Plant	Lolium Lol p 4	423	55859464	7
941	Lolium perenne	Perennial ryegrass	Lol p 5.0101	Aero Plant	Lolium Lol p 5 *ver 10	339	2498582	7
942	Lolium perenne	Perennial ryegrass	Lol p 5	Aero Plant	Lolium Lol p 5 *ver 10	301	4416516	7
943	Lolium perenne	Perennial ryegrass	Lol p 5	Aero Plant	Lolium Lol p 5 *ver 10	301	6634467	7
944	Lolium perenne	Perennial ryegrass	Unassigned	Aero Plant	Lolium Lol p 5 *ver 10	307	332278195	12
945	Lupinus angustifolius		Unassigned	Food Plant	Lupinus conglutin beta	521	149208401	9
946	Lupinus angustifolius		Unassigned	Food Plant	Lupinus conglutin beta	455	149208403	9
947	Lupinus angustifolius		Unassigned	Food Plant	Lupinus conglutin beta	611	169950562	10
948	Lycopersicon esculentum	Tomato	Lyc e 1	Food Plant	Lycopersicon Lyc e 1	131	16555787	7
949	Lycopersicon esculentum	Tomato	Lyc e 1	Food Plant	Lycopersicon Lyc e 1	131	17224229	7
950	Lycopersicon esculentum	Tomato	Lyc e 2.0101	Food Plant	Lycopersicon Lyc e 2	553	18542113	7
951	Lycopersicon esculentum	Tomato	Lyc e 2.0102	Food Plant	Lycopersicon Lyc e 2	636	18542115	7
952	Lycopersicon esculentum	Tomato	Unassigned	Food Plant	Lycopersicon Lyc e 3	114	71360928	7
953	Lycopersicon esculentum	Tomato	Unassigned	Food Plant	Lycopersicon Lyc e 3	114	71360930	7
954	Macrobrachium rosenbergii		Unassigned	Food Animal	Macrobrachium rosenbergii shrimp	284	288819271	11

					tropomyosin			
955	Malassezia furfur	Yeast	Unassigned	Contact	Malassezia Mala f 2	177	3914386	8
956	Malassezia furfur	Yeast	Unassigned	Contact	Malassezia Mala f 3	166	3914387	8
957	Malassezia furfur	Yeast	Mala f 4	Contact	Malassezia Mala f 4	342	4587985	7
958	Malassezia furfur	Yeast	Unassigned	Contact	Malassezia Mala s 1	350	13959403	7
959	Malassezia sympodialis	Yeast	Mala s 11	Contact	Malassezia Mala s 11	237	28569698	7
960	Malassezia sympodialis	Yeast	Unassigned	Contact	Malassezia Mala s 12	618	78038796	7
961	Malassezia sympodialis	Yeast	Unassigned	Contact	Malassezia Mala s 13 Thioredoxin Rev	121	119390336	8
962	Malassezia sympodialis	Yeast	Mala s 5	Contact	Malassezia Mala s 5	172	4138171	7
963	Malassezia sympodialis	Yeast	Mala s 6	Contact	Malassezia Mala s 6	162	4138173	7
964	Malassezia sympodialis	Yeast	Mala s 7	Contact	Malassezia Mala s 7	187	4138175	7
965	Malassezia sympodialis	Yeast	Mala s 8	Contact	Malassezia Mala s 8	179	7271239	7
966	Malassezia sympodialis	Yeast	Mala s 9	Contact	Malassezia Mala s 9	342	19069920	7
967	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	1313966	7
968	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590364	7
969	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590366	7
970	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590368	7
971	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590376	7
972	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590378	7
973	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590380	7
974	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590382	7
975	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	4590388	7
976	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	16555783	7
977	Malus x	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	27922941	7

	domestica							
978	Malus x domestica	Apple	Mal d 1	Food Plant	Malus Mal d 1	159	1346478	7
979	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	60280829	7
980	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	60280851	7
981	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	42558971	9
982	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	75306008	11
983	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	75306007	11
984	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 1	159	886683	11
985	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	26	1478293	7
986	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	246	60418842	7
987	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	246	60418848	7
988	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	246	30316292	8
989	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	158	218059718	10
990	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 2	158	218059715	10
991	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	50659891	7
992	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	50659889	7
993	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	50659885	7
994	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	50659879	7
995	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	50659859	7
996	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	38492338	7
997	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 3	115	14423814	9
998	Malus x domestica	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	14423873	7
999	Malus x domestica	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	14423874	7
1000	Malus x	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	14423875	7

	domestica								
1001	Malus x domestica	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	28881453	7	
1002	Malus x domestica	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	28881457	7	
1003	Malus x domestica	Apple	Mal d 4	Food Plant	Malus Mal d 4	131	28881455	7	
1004	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	60418854	7	
1005	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	60418858	7	
1006	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	60418862	7	
1007	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	60418866	7	
1008	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	164510842	9	
1009	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	164510858	9	
1010	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	164510860	9	
1011	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	77	218059730	10	
1012	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	115	218059733	10	
1013	Malus x domestica	Apple	Unassigned	Food Plant	Malus Mal d 4	131	218059728	10	
1014	Marsupenaeus japonicus		Unassigned	Food Animal	Marsupenaeus tropomyosin	284	125995159	8	
1015	Mercurialis annua	Annual mercury grass	Mer a 1	Aero Plant	Mercurialis Mer a 1	133	2959898	7	
1016	Metapenaeus ensis	Greasyback shrimp	Unassigned	Food Animal	Metapenaeus Met e 1 Tropomyosin	274	6094504	9	
1017	Mimachlamys nobilis	Noble scallop	Unassigned	Food Animal	Mimachlamys Tropomyosin	284	9954253	7	
1018	Morus nigra	Black mulberry	Unassigned	Food Plant	Morus Mor n 3 mulberry LTP	91	288561913	11	
1019	Mus musculus	Mouse	Mus m 1	Aero Animal	Mus Mus m 1	180	20178291	7	
1020	Musa acuminata	Banana	Mus xp 1	Food Plant	Musa profilin banana	131	14161635	7	
1021	Myrmecia pilosula	Jumper ant	Myr p 1	Venom or Salivary	Myrmecia Myr p 1	112	730091	7	
1022	Myrmecia pilosula	Jumper ant	Unassigned	Venom or Salivary	Myrmecia Myr p 1	112	1911819	7	
1023	Myrmecia	Jumper ant	Myr p 2	Venom or	Myrmecia Myr p 2	75	1587177	7	

	pilosula			Salivary				
1024	Myrmecia pilosula	Jumper ant	Myr p 2	Venom or Salivary	Myrmecia Myr p 2	75	2498604	7
1025	Neptunea polycostata		Unassigned	Food Animal	Neptunea tropomyosin	284	219806590	10
1026	Nicotiana tabacum	Tobacco	Unassigned	Aero Plant	Nicotiana villin	520	57283139	7
1027	Nicotiana tabacum	Tobacco	Unassigned	Aero Plant	Nicotiana villin	559	57283137	7
1028	Octopus vulgaris		Unassigned	Food Animal	Octopus tropomyosin	284	83715936	7
1029	Olea europaea	Olive tree	Ole e 1	Aero Plant	Olea Ole e 1	145	14424429	7
1030	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	137	1362128	7
1031	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	136	1362129	7
1032	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	136	1362130	7
1033	Olea europaea	Olive tree	Ole e 1.0104	Aero Plant	Olea Ole e 1	145	1362131	7
1034	Olea europaea	Olive tree	Ole e 1	Aero Plant	Olea Ole e 1	137	1362132	7
1035	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	136	1362133	7
1036	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	136	1362134	7
1037	Olea europaea	Olive tree	Ole e 1.0102	Aero Plant	Olea Ole e 1	145	1362135	7
1038	Olea europaea	Olive tree	Ole e 1.0103	Aero Plant	Olea Ole e 1	145	1362136	7
1039	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	136	1362137	7
1040	Olea europaea	Olive tree	Ole e 1.0105	Aero Plant	Olea Ole e 1	146	2465127	7
1041	Olea europaea	Olive tree	Ole e 1.0106	Aero Plant	Olea Ole e 1	146	2465129	7
1042	Olea europaea	Olive tree	Ole e 1.0107	Aero Plant	Olea Ole e 1	146	2465131	7
1043	Olea europaea	Olive tree	Ole e 1.0101	Aero Plant	Olea Ole e 1	130	13195753	7
1044	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	134	37724597	7
1045	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	135	37724593	7
1046	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	37548753	7
1047	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	131	33329758	7
1048	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	33329756	7
1049	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	33329754	7
1050	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	131	33329752	7
1051	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	131	33329750	7

1052	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	129	33329748	7
1053	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	131	33329744	7
1054	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	33329738	7
1055	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	33329732	7
1056	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	132	33325115	7
1057	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	140	145313982	9
1058	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	140	145313984	9
1059	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	140	145313988	9
1060	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	140	145313990	9
1061	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 1	140	145313992	9
1062	Olea europaea	Olive tree	Ole e 10	Aero Plant	Olea Ole e 10	123	29465664	7
1063	Olea europaea	Olive tree	Ole e 11.0102	Aero Plant	Olea Ole e 11.0101 and 0102	364	68270856	11
1064	Olea europaea	Olive tree	Ole e 11.0101	Aero Plant	Olea Ole e 11.0101 and 0102	364	269996495	11
1065	Olea europaea	Olive tree	Unassigned	Food Plant	Olea Ole e 13 thaumatin	226	269996497	12
1066	Olea europaea	Olive tree	Ole e 2	Aero Plant	Olea Ole e 2	134	3914426	7
1067	Olea europaea	Olive tree	Ole e 2	Aero Plant	Olea Ole e 2	134	3914427	7
1068	Olea europaea	Olive tree	Ole e 2	Aero Plant	Olea Ole e 2	134	3914428	7
1069	Olea europaea	Olive tree	Ole e 3	Aero Plant	Olea Ole e 3	84	3337403	7
1070	Olea europaea	Olive tree	Ole e 3	Aero Plant	Olea Ole e 3	52	37725377	7
1071	Olea europaea	Olive tree	Ole e 5	Aero Plant	Olea Ole e 5	30	122064581	8
1072	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	145313972	9
1073	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347106	9
1074	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	144	160347108	9
1075	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347112	9
1076	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347120	9
1077	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347122	9
1078	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347124	9
1079	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347126	9
1080	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347130	9
1081	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347134	9
1082	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160347138	9
1083	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962543	9
1084	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962547	9

1085	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962557	9
1086	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962577	9
1087	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962583	9
1088	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	144	160962587	9
1089	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962591	9
1090	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962597	9
1091	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 5	152	160962611	9
1092	Olea europaea	Olive tree	Ole e 6	Aero Plant	Olea Ole e 6	50	14423643	7
1093	Olea europaea	Olive tree	Ole e 7	Aero Plant	Olea Ole e 7	21	22002032	7
1094	Olea europaea	Olive tree	Ole e 8	Aero Plant	Olea Ole e 8	171	6901654	7
1095	Olea europaea	Olive tree	Ole e 8	Aero Plant	Olea Ole e 8	171	14423648	7
1096	Olea europaea	Olive tree	Ole e 9	Aero Plant	Olea Ole e 9	460	14279169	7
1097	Olea europaea	Olive tree	Unassigned	Aero Plant	Olea Ole e 9	101	166235350	9
1098	Ommastrephes bartramii		Unassigned	Food Animal	Ommastrephes tropomyosin	284	83715934	7
1099	Onchocerca volvulus	Parasitic nematode	Unassigned	Worm (parasite)	Onchocerca tropomyosin	284	42559586	12
1100	Oncorhynchus mykiss		Unassigned	Food Animal	Oncorhynchus Rainbow trout parv Onc m 1	108	288559139	11
1101	Oncorhynchus mykiss		Unassigned	Food Animal	Oncorhynchus Rainbow trout parv Onc m 1	107	288559140	11
1102	Oratosquilla oratoria		Unassigned	Food Animal	Oratosquilla tropomyosin	284	162286975	9
1103	Oryza sativa	Rice	Unassigned	Food Plant	Oryza Glyoxalase I	291	84029333	7
1104	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Glyoxalase I	291	16580747	7
1105	Oryza sativa	Rice	Ory s 1	Aero Plant	Oryza Ory s 1	263	1173557	8
1106	Oryza sativa	Rice	Unassigned	Aero Plant	Oryza Ory s 1	267	8118439	7
1107	Oryza sativa (japonica cultivar-group)	Rice	Ory s 1	Aero Plant	Oryza Ory s 1	267	109913547	8
1108	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	157	23616954	8
1109	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	165	218193	7
1110	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	157	218197	7

1111	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	111	1304216	7
1112	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	109	1304217	7
1113	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	113	1304218	7
1114	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	166	1398913	7
1115	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	160	1398915	7
1116	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	157	1398916	7
1117	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	160	1398918	7
1118	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	157	2827316	7
1119	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	166	114152865	8
1120	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	163	114152864	8
1121	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	160	23495787	8
1122	Oryza sativa (japonica cultivar-group)	Rice	Unassigned	Food Plant	Oryza Trypsin alpha-amylase inhibitor UNCERTAIN	160	23616947	7
1123	Ostrya carpinifolia		Unassigned	Aero Plant	Ostrya Ost c 1pollen allergen	160	300872535	12
1124	Pachycondyla chinensis		Unassigned	Venom or Salivary	Pachycondyla Pac c 3 allergen	199	169822894	10
1125	Pandalus borealis		Unassigned	Food Animal	Pandalus Pan b 1	284	312831088	12
1126	Pandalus eous		Unassigned	Food Animal	Pandalus Pan b 1	284	125995161	8
1127	Panulirus stimpsoni	Lobster	Unassigned	Food Animal	Panulirus Pan s 1	274	14285797	7
1128	Paralithodes camtschaticus		Unassigned	Food Animal	Paralithodes tropomyosin	284	125995163	8
1129	Paralithodes camtschaticus		Unassigned	Food Animal	Paralithodes tropomyosin	284	125995165	8

1130	Parietaria judaica	Weed	Par j 1	Aero Plant	Parietaria Par j 1	143	741844	7
1131	Parietaria judaica	Weed	Par j 1.0102	Aero Plant	Parietaria Par j 1	176	1532058	7
1132	Parietaria judaica	Weed	Par j 1.0201	Aero Plant	Parietaria Par j 1	138	2497749	7
1133	Parietaria judaica	Weed	Par j 1.0101	Aero Plant	Parietaria Par j 1	139	3915783	7
1134	Parietaria judaica	Weed	Par j 2.0102	Aero Plant	Parietaria Par j 2	133	1532056	7
1135	Parietaria judaica	Weed	Par j 2.0101	Aero Plant	Parietaria Par j 2	133	2497750	7
1136	Parietaria judaica	Weed	Par j 3	Aero Plant	Parietaria Par j 3	131	14423869	7
1137	Parietaria judaica	Weed	Par j 3	Aero Plant	Parietaria Par j 3	132	14423876	7
1138	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	12	75139847	7
1139	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	17	1311509	7
1140	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	15	1311510	7
1141	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	15	1311511	7
1142	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	15	1311512	7
1143	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	30	1311513	7
1144	Parietaria officinalis	Weed	Par o 1	Aero Plant	Parietaria Par o 1	24	1836011	7
1145	Parietaria officinalis	Weed	Unassigned	Aero Plant	Parietaria Par o 1	25	1836010	7
1146	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	169	338930686	12
1147	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	169	338930684	12
1148	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	169	338930682	12
1149	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	169	338930680	12
1150	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	393	338930678	12
1151	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	393	338930676	12
1152	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	391	338930674	12

1153	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum group 13 pollen allergen	395	338930672	12
1154	Paspalum notatum	Bahia grass	Unassigned	Aero Plant	Paspalum Pas n 1 beta expansin	265	168419914	10
1155	Penaeus monodon	Black tiger shrimp	Unassigned	Food Animal	Penaeus Pen m 1 tropomyosin	284	125995157	8
1156	Penaeus monodon	Black tiger shrimp	Pen m 2	Food Animal	Penaeus Pen m 2	356	27463265	7
1157	Penaeus monodon	Black tiger shrimp	Unassigned	Food Animal	Penaeus Pen m 2	356	308154236	12
1158	Penaeus monodon	Black tiger shrimp	Unassigned	Food Animal	Penaeus Pen m 3 myosin light chain	177	317383196	12
1159	Penaeus monodon	Black tiger shrimp	Unassigned	Food Animal	Penaeus Pen m 4 sarcoplasmic calcium binding	193	317383198	12
1160	Penicillium chrysogenum	Fungus	Pen ch 18	Aero Fungi	Penicillium Pen 18	494	7963902	7
1161	Penicillium chrysogenum	Fungus	Pen ch 18	Aero Fungi	Penicillium Pen 18	494	14215732	7
1162	Penicillium citrinum	Fungus	Unassigned	Aero Fungi	Penicillium Pen 18	457	4588118	7
1163	Penicillium citrinum	Fungus	Unassigned	Aero Fungi	Penicillium Pen 18	358	12005501	7
1164	Penicillium oxalicum	Fungus	Pen o 18	Aero Fungi	Penicillium Pen 18	503	12005497	7
1165	Penicillium brevicompactum	Fungus	Unassigned	Aero Fungi	Penicillium Pen b 26	107	59894749	7
1166	Penicillium citrinum	Fungus	Pen c 19	Aero Fungi	Penicillium Pen c 19	503	14423733	7
1167	Penicillium citrinum	Fungus	Unassigned	Aero Fungi	Penicillium Pen c 22	438	74664773	9
1168	Penicillium citrinum	Fungus	Pen c 24	Aero Fungi	Penicillium Pen c 24	228	38326693	7
1169	Penicillium citrinum	Fungus	Pen c 3	Aero Fungi	Penicillium Pen c 3	167	5326864	7
1170	Penicillium chrysogenum	Fungus	Pen ch 13	Aero Fungi	Penicillium Pen ch 13	397	6684758	7
1171	Penicillium chrysogenum	Fungus	Pen ch 13	Aero Fungi	Penicillium Pen ch 13	398	21069093	7
1172	Penicillium citrinum	Fungus	Unassigned	Aero Fungi	Penicillium Pen ch 13	397	4587983	7
1173	Penicillium chrysogenum	Fungus	Pen ch 20	Aero Fungi	Penicillium Pen ch 20 68 kDa protein	117	999009	7
1174	Periplaneta americana	American cockroach	Per a 7.0101	Aero Insect	Periplaneta Per 7	284	4378573	7
1175	Periplaneta	American	Unassigned	Aero	Periplaneta Per 7	284	14423957	9

	americana	cockroach		Insect				
1176	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta Per 7	284	239740599	11
1177	Periplaneta fuliginosa	Smokybrown cockroach	Unassigned	Aero Insect	Periplaneta Per 7	284	19310971	7
1178	Periplaneta americana	American cockroach	Per a 1	Aero Insect	Periplaneta Per a 1	446	2231297	7
1179	Periplaneta americana	American cockroach	Per a 1.0104	Aero Insect	Periplaneta Per a 1	274	2253610	7
1180	Periplaneta americana	American cockroach	Per a 1	Aero Insect	Periplaneta Per a 1	395	2580504	7
1181	Periplaneta americana	American cockroach	Per a 1.0102	Aero Insect	Periplaneta Per a 1	228	2897849	7
1182	Periplaneta americana	American cockroach	Per a 1.0101	Aero Insect	Periplaneta Per a 1	231	4240399	7
1183	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta Per a 1	124	30144660	7
1184	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta Per a 1	395	284518361	11
1185	Periplaneta americana	American cockroach	Per a 3.0201	Aero Insect	Periplaneta Per a 3	631	1531589	7
1186	Periplaneta americana	American cockroach	Per a 3.0202	Aero Insect	Periplaneta Per a 3	470	1580794	7
1187	Periplaneta americana	American cockroach	Per a 3.0203	Aero Insect	Periplaneta Per a 3	393	1580797	7
1188	Periplaneta americana	American cockroach	Per a 3.0101	Aero Insect	Periplaneta Per a 3	685	2833325	9
1189	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta Per a 3	688	284518363	11
1190	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta Per a 3	685	289721058	11
1191	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta putative Per a 4	183	60678787	7
1192	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta putative Per a 4	163	215794707	10
1193	Periplaneta americana	American cockroach	Unassigned	Aero Insect	Periplaneta putative Per a 4	167	212675312	10
1194	Perna viridis	Asian green mussell	Unassigned	Food Animal	Perna Tropomyosin	284	9954251	7
1195	Persea americana	Avocado	Pers a 1	Food Plant	Persea Pers a 1	326	3201547	7
1196	Phalaris aquatica	Canary grass	Unassigned	Aero Plant	Phalaris Pha a 1	20	409328	7
1197	Phalaris aquatica	Canary grass	Pha a 1	Aero Plant	Phalaris Pha a 1	269	2498576	7
1198	Phalaris aquatica	Canary grass	Unassigned	Aero Plant	Phalaris Pha a 5	320	2498577	7

1199	Phalaris aquatica	Canary grass	Unassigned	Aero Plant	Phalaris Pha a 5	305	2498578	7
1200	Phalaris aquatica	Canary grass	Unassigned	Aero Plant	Phalaris Pha a 5	294	2498579	7
1201	Phalaris aquatica	Canary grass	Unassigned	Aero Plant	Phalaris Pha a 5	175	2498580	7
1202	Phaseolus vulgaris	Kidney bean	Unassigned	Food Plant	Phaseolus Pha v 3	115	289064177	11
1203	Phaseolus vulgaris	Kidney bean	Unassigned	Food Plant	Phaseolus Pha v 3	118	289064179	11
1204	Phleum pratense	Common timothy	Phl p 1.0101	Aero Plant	Phleum Phl p 1	263	3901094	7
1205	Phleum pratense	Common timothy	Phl p 1	Aero Plant	Phleum Phl p 1	241	28373838	7
1206	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 1	240	45823012	7
1207	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 1	263	1171008	9
1208	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 1	262	1582250	10
1209	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 11	143	47606039	9
1210	Phleum pratense	Common timothy	Phl p 12	Aero Plant	Phleum Phl p 12	131	464471	7
1211	Phleum pratense	Common timothy	Phl p 12	Aero Plant	Phleum Phl p 12	131	2415700	7
1212	Phleum pratense	Common timothy	Phl p 12	Aero Plant	Phleum Phl p 12	131	2415702	7
1213	Phleum pratense	Common timothy	Phl p 13	Aero Plant	Phleum Phl p 13	394	4826572	7
1214	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 2	122	1171009	8
1215	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	525	82492267	7
1216	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	508	54144332	7
1217	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	45108973	7
1218	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	45108967	7
1219	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	189014266	10
1220	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	189014268	10
1221	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	189014270	10

1222	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 4	500	189014272	10
1223	Phleum pratense	Common timothy	Phl p 5.0101	Aero Plant	Phleum Phl p 5	312	398830	7
1224	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	257	422005	7
1225	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	280	481397	7
1226	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	24	75139900	7
1227	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	285	1092249	7
1228	Phleum pratense	Common timothy	Phl p 5.0202	Aero Plant	Phleum Phl p 5	281	1684718	7
1229	Phleum pratense	Common timothy	Phl p 5.0104	Aero Plant	Phleum Phl p 5	276	1684720	7
1230	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	286	2398757	7
1231	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	284	2851457	7
1232	Phleum pratense	Common timothy	Phl p 5.0105	Aero Plant	Phleum Phl p 5	276	3135497	7
1233	Phleum pratense	Common timothy	Phl p 5.0106	Aero Plant	Phleum Phl p 5	276	3135499	7
1234	Phleum pratense	Common timothy	Phl p 5.0107	Aero Plant	Phleum Phl p 5	276	3135501	7
1235	Phleum pratense	Common timothy	Phl p 5.0108	Aero Plant	Phleum Phl p 5	276	3135503	7
1236	Phleum pratense	Common timothy	Phl p 5.0103	Aero Plant	Phleum Phl p 5	312	3309039	7
1237	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	295	3309041	7
1238	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	290	3309045	7
1239	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	3309047	7
1240	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	275	13430402	7
1241	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725606	7
1242	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725608	7
1243	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725610	7
1244	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725612	7

1245	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725614	7
1246	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725616	7
1247	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725618	7
1248	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725620	7
1249	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725622	7
1250	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725624	7
1251	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725626	7
1252	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725628	7
1253	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725630	7
1254	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	287	21725632	7
1255	Phleum pratense	Common timothy	Phl p 5	Aero Plant	Phleum Phl p 5	102	28948464	7
1256	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 5	284	29500897	7
1257	Phleum pratense	Common timothy	Phl p 6	Aero Plant	Phleum Phl p 6	138	3004465	7
1258	Phleum pratense	Common timothy	Phl p 6	Aero Plant	Phleum Phl p 6	138	3004467	7
1259	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 6	106	3004469	7
1260	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 6	111	28374072	7
1261	Phleum pratense	Common timothy	Unassigned	Aero Plant	Phleum Phl p 7	78	14423846	7
1262	Phoenix dactylifera	Date palm	Pho d 2	Aero Plant	Phoenix Pho d 2	131	21322677	7
1263	Pistacia vera		Unassigned	Food Plant	Pistacia 11S globulin	472	156001070	9
1264	Pistacia vera		Unassigned	Food Plant	Pistacia 11S globulin	496	110349083	10
1265	Pistacia vera		Unassigned	Food Plant	Pistacia 11S globulin	472	110349085	10
1266	Pistacia vera		Unassigned	Food Plant	Pistacia Pis v 1 2S albumin	149	110349081	10
1267	Pistacia vera		Unassigned	Food Plant	Pistacia Pis v 3 vicilin	519	133711974	10

1268	Pisum sativum	Pea	Pis s 1	Food Plant	Pisum Pis s 1	415	42414629	7
1269	Pisum sativum	Pea	Pis s 1	Food Plant	Pisum Pis s 1	415	42414627	7
1270	Plantago lanceolata	Narrow-leaved plantain	Pla l 1	Aero Plant	Plantago Pla l 1	131	14422359	7
1271	Plantago lanceolata	Narrow-leaved plantain	Pla l 1	Aero Plant	Plantago Pla l 1	131	14422361	7
1272	Plantago lanceolata	Narrow-leaved plantain	Pla l 1	Aero Plant	Plantago Pla l 1	131	14422363	7
1273	Plantago lanceolata	Narrow-leaved plantain	Unassigned	Aero Plant	Plantago Pla l 1	65	29163773	7
1274	Platanus x acerifolia	London plane tree	Unassigned	Aero Plant	Platanus Pla a 1	179	29839547	9
1275	Platanus x acerifolia	London plane tree	Pla a 2	Aero Plant	Platanus Pla a 2	377	49523394	7
1276	Platanus orientalis		Unassigned	Aero Plant	Platanus Pla or 1	170	162949336	9
1277	Plodia interpunctella	Indian meal moth	Unassigned	Aero Insect	Plodia Plo i 1 Arginine kinase	355	15886861	7
1278	Poa pratensis	Kentucky bluegrass	Unassigned	Aero Plant	Poa group II	122	4007655	7
1279	Poa pratensis	Kentucky bluegrass	Poa p 1	Aero Plant	Poa Poa p 1	20	280414	7
1280	Poa pratensis	Kentucky bluegrass	Poa p 1	Aero Plant	Poa Poa p 1	26	320620	7
1281	Poa pratensis	Kentucky bluegrass	Poa p 1	Aero Plant	Poa Poa p 1	263	4090265	7
1282	Poa pratensis	Kentucky bluegrass	Poa p 5	Aero Plant	Poa Poa p 5	303	11991227	7
1283	Poa pratensis	Kentucky bluegrass	Unassigned	Aero Plant	Poa Poa p 9	373	113560	7
1284	Poa pratensis	Kentucky bluegrass	Unassigned	Aero Plant	Poa Poa p 9	307	113562	7
1285	Poa pratensis	Kentucky bluegrass	Unassigned	Aero Plant	Poa Poa p 9	131	539056	7
1286	Poa pratensis	Kentucky bluegrass	Unassigned	Aero Plant	Poa Poa p 9	333	113561	7
1287	Polistes annularis	Paper wasp	Pol a 1	Venom or Salivary	Polistes Pol a 1	301	14423833	7
1288	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Pol a 1	316	45510893	7
1289	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Pol a 1	316	45510891	7
1290	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Pol a 1	316	45510889	7
1291	Polistes	Paper wasp	Unassigned	Venom or	Polistes Pol a 1	337	45510887	7

	dominulus			Salivary				
1292	Polistes gallicus	Paper wasp	Unassigned	Venom or Salivary	Polistes Pol a 1	42	41017429	7
1293	Polistes annularis	Paper wasp	Pol a 2	Venom or Salivary	Polistes Pol a 2	367	14423735	7
1294	Polistes annularis	Paper wasp	Pol a 5	Venom or Salivary	Polistes Venom allergen 5	209	160780	7
1295	Polistes dominulus	Paper wasp	Pol d 5	Venom or Salivary	Polistes Venom allergen 5	227	51093377	7
1296	Polistes exclamans	Paper wasp	Pol e 5	Venom or Salivary	Polistes Venom allergen 5	205	549187	7
1297	Polistes exclamans	Paper wasp	Unassigned	Venom or Salivary	Polistes Venom allergen 5	226	51093375	7
1298	Polistes fuscatus	Paper wasp	Pol f 5	Venom or Salivary	Polistes Venom allergen 5	205	549188	7
1299	Polistes gallicus	Paper wasp	Pol g 5	Venom or Salivary	Polistes Venom allergen 5	206	25091511	7
1300	Polistes dominulus	Paper wasp	Unassigned	Venom or Salivary	Polistes Venom serine protease	277	30909091	7
1301	Polybia paulista	wasp	Unassigned	Venom or Salivary	Polybia p hyaluronidase	345	302201583	12
1302	Polybia paulista	wasp	Unassigned	Venom or Salivary	Polybia p hyaluronidase	288	302425085	12
1303	Polybia paulista	wasp	Unassigned	Venom or Salivary	Polybia p venom allergen 5	141	290792375	11
1304	Polybia paulista	wasp	Unassigned	Venom or Salivary	Polybia p venom allergen 5	207	302595972	12
1305	Polybia paulista	wasp	Pol p 1.0101	Venom or Salivary	Polybia Pol p 1.0101 phospholipase	322	166216292	9
1306	Polybia paulista	wasp	Unassigned	Venom or Salivary	Polybia Pol p 1.0101 phospholipase	302	315190620	12
1307	Protortonia cacti		Unassigned	Food Animal	Protortonia	335	237769615	11
1308	Prunus dulcis x Prunus persica		Unassigned	Food Plant	Prunus Almond-peach hybr profilin Pru 4	131	190613933	10
1309	Prunus dulcis x Prunus persica		Unassigned	Food Plant	Prunus Almond-peach hybr profilin Pru 4	131	190613937	10
1310	Prunus dulcis x Prunus persica		Pru p 2.0201	Food Plant	Prunus persica Pru p 2	246	190613907	10
1311	Prunus dulcis x Prunus persica		Pru p 2.0101	Food Plant	Prunus persica Pru p 2	246	190613911	10
1312	Prunus dulcis x Prunus persica		Pru p 2.0301	Food Plant	Prunus persica Pru p 2	242	190613903	10
1313	Prunus avium	Cherry	Pru av 1	Food Plant	Prunus PRP (Bet v 1 family)	160	1513216	7

1314	Prunus avium	Cherry	Pru av 1	Food Plant	Prunus PRP (Bet v 1 family)	160	44409496	7
1315	Prunus avium	Cherry	Pru av 1	Food Plant	Prunus PRP (Bet v 1 family)	160	44409474	7
1316	Prunus avium	Cherry	Pru av 1	Food Plant	Prunus PRP (Bet v 1 family)	160	44409451	7
1317	Prunus avium	Cherry	Unassigned	Food Plant	Prunus PRP (Bet v 1 family)	159	159162378	9
1318	Prunus persica	Peach	Unassigned	Food Plant	Prunus PRP (Bet v 1 family)	160	82492265	7
1319	Prunus armeniaca	Apricot	Unassigned	Food Plant	Prunus Pru 3	119	313575730	12
1320	Prunus armeniaca	Apricot	Unassigned	Food Plant	Prunus Pru 3	117	313575732	12
1321	Prunus armeniaca	Apricot	Unassigned	Food Plant	Prunus Pru 3	117	313575734	12
1322	Prunus armeniaca	Apricot	Unassigned	Food Plant	Prunus Pru 3	117	313575736	12
1323	Prunus avium	Cherry	Pru av 3	Food Plant	Prunus Pru 3	117	6715520	7
1324	Prunus avium	Cherry	Unassigned	Food Plant	Prunus Pru 3	117	313575726	12
1325	Prunus avium	Cherry	Unassigned	Food Plant	Prunus Pru 3	117	313575728	12
1326	Prunus domestica	Plum	Pru d 3	Food Plant	Prunus Pru 3	91	9297015	7
1327	Prunus persica	Peach	Pru p 3	Food Plant	Prunus Pru 3	91	3287877	7
1328	Prunus persica	Peach	Pru p 3	Food Plant	Prunus Pru 3	92	83754241	7
1329	Prunus persica	Peach	Unassigned	Food Plant	Prunus Pru 3	117	54793477	7
1330	Prunus persica	Peach	Unassigned	Food Plant	Prunus Pru 3	117	313575718	12
1331	Prunus avium	Cherry	Pru av 4	Food Plant	Prunus Pru 4 Profilin	131	4761582	7
1332	Prunus dulcis	Almond	Pru du 4	Food Plant	Prunus Pru 4 Profilin	131	24473794	7
1333	Prunus persica	Peach	Pru p 4.01	Food Plant	Prunus Pru 4 Profilin	131	27528310	7
1334	Prunus persica	Peach	Pru p 4.02	Food Plant	Prunus Pru 4 Profilin	131	27528312	7
1335	Prunus avium	Cherry	Pru av 2	Food Plant	Prunus Pru av 2	245	1144346	7
1336	Prunus dulcis	Almond	Unassigned	Food Plant	Prunus Pru du 6 Amandin	531	258588247	11
1337	Prunus dulcis	Almond	Unassigned	Food Plant	Prunus Seed allergenic protein 2 (Conglutin gamma)	25	75107131	8
1338	Pseudocardium sachalinensis		Unassigned	Food Animal	Pseudocardium tropomyosin	284	219806598	10
1339	Pyrus communis	Pear	Pyr c 1	Food Plant	Pyrus Pyr c 1	159	3044216	7
1340	Pyrus communis	Pear	Pyr c 4	Food Plant	Pyrus Pyr c 4	131	4761580	7
1341	Pyrus communis	Pear	Pyr c 5	Food Plant	Pyrus Pyr c 5	308	3243234	7

1342	Quercus alba	Oak	Que a 1	Aero Plant	Quercus Que a I	24	543675	7
1343	Quercus alba	Oak	Unassigned	Aero Plant	Quercus Que a I	159	167472847	10
1344	Quercus alba	Oak	Unassigned	Aero Plant	Quercus Que a I	160	167472849	10
1345	Rana esculenta	Frog	Ran e 1	Food Animal	Rana Ran e 1	110	20796729	7
1346	Rana sp. CH-2001	Frog	Unassigned	Food Animal	Rana Ran e 1	110	20796733	7
1347	Rana esculenta	Frog	Ran e 2	Food Animal	Rana Ran e 2	109	20797081	7
1348	Rana sp. CH-2001	Frog	Unassigned	Food Animal	Rana Ran e 2	109	20797085	7
1349	Rattus norvegicus	Rat	Rat n 1	Aero Animal	Rattus Rat n 1	181	127533	7
1350	Rattus norvegicus	Rat	Rat n 1	Aero Animal	Rattus Rat n 1	181	81890324	7
1351	Rattus norvegicus	Rat	Unassigned	Aero Animal	Rattus Rat n 1	181	109474987	8
1352	Rhodotorula mucilaginosa	Fungus	Unassigned	Aero Fungi	Rhodotorula Rho m 1	439	37078092	7
1353	Rhodotorula mucilaginosa	Fungus	Unassigned	Aero Fungi	Rhodotorula Rho m 2	342	54654335	7
1354	Ricinus communis	Castor bean	Ric c 1	Food Plant	Ricinus Ric c 1	258	112762	7
1355	Rubus idaeus		Unassigned	Food Plant	Rubus putative allergen Rub i 1	137	110180525	8
1356	Rubus idaeus		Unassigned	Food Plant	Rubus putative allergen Rub i 3	117	110180523	8
1357	Salmo salar	Salmon	Sal s 1	Food Animal	Salmo Sal s 1	109	2493445	7
1358	Salmo salar	Salmon	Sal s 1	Food Animal	Salmo Sal s 1	108	18281421	7
1359	Salmo salar	Salmon	Unassigned	Food Animal	Salmo Sal s 1	109	209734468	10
1360	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola pectin methylesterase Sal k 1.01 & 1.02	362	51242679	8
1361	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola pectin methylesterase Sal k 1.01 & 1.02	339	59895728	8
1362	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola pectin methylesterase Sal k 1.01 & 1.02	339	59895730	8
1363	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola pectin methylesterase Sal k 1.01 & 1.02	339	225810597	10
1364	Salsola kali	Thistle	Sal k 1	Aero Plant	Salsola Sal k 1	11	25090948	7

1365	Salsola kali	Thistle	Sal k 1	Aero Plant	Salsola Sal k 1	8	25090949	7
1366	Salsola kali	Thistle	Sal k 1	Aero Plant	Salsola Sal k 1	9	25090950	7
1367	Salsola kali	Thistle	Sal k 1	Aero Plant	Salsola Sal k 1	14	25090951	7
1368	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola Sal k 3 pollen allergen	757	225810599	10
1369	Salsola kali	Thistle	Unassigned	Aero Plant	Salsola Sal k 4 profilin	133	239916566	11
1370	Salvelinus fontinalis	Brook trout	Unassigned	Food Animal	Salvelinus parvalbumin	109	288557438	11
1371	Salvelinus fontinalis	Brook trout	Unassigned	Food Animal	Salvelinus parvalbumin	108	288557440	11
1372	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes Apolipoprotein Ssag1.2	330	27462848	7
1373	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes cysteine protease C08	340	46406002	7
1374	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes cysteine proteases F04	338	46406012	7
1375	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes cysteine proteases F04	339	46406014	7
1376	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes cysteine proteases F04	273	46406016	7
1377	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes Glutathione S-transferase Mu	219	27462836	7
1378	Sarcoptes scabiei type hominis	Scabies mite	Unassigned	Venom or Salivary	Sarcoptes Glutathione S-transferase Mu	219	60920770	7
1379	Sardinops sagax		Unassigned	Food Animal	Sardinops Sar sa 1 parvalbumin	109	193247972	10
1380	Scapharca broughtonii		Unassigned	Food Animal	Scapharca tropomyosin	284	219806592	10
1381	Schistosoma japonicum	Schistosoma	Unassigned	Protozoan	Schistosoma Putative profilin	129	29841461	7
1382	Schistosoma japonicum	Schistosoma	Unassigned	Protozoan	Schistosoma tegumental antigen	191	2739154	7
1383	Scomber japonicus	Chub mackerel	Unassigned	Food Animal	Scomber Parvalbumin	109	29420793	7
1384	Scomber scombrus	Atlantic mackerel	Unassigned	Food Animal	Scomber Parvalbumin	109	288557436	11
1385	Secale cereale	Rye	Unassigned	Aero Plant	Secale 30K pollen grp 5	16	75140047	7
1386	Secale cereale	Rye	Unassigned	Food Plant	Secale 30K pollen grp 5	292	332205751	12

1387	Secale cereale	Rye	Sec c 1	Aero Plant	Secale sec c 1	26	75198875	7
1388	Secale cereale	Rye	Unassigned	Aero Plant	Secale Sec c 4	520	55859456	7
1389	Secale cereale	Rye	Unassigned	Aero Plant	Secale Sec c 4	518	55859454	7
1390	Sepia esculenta		Unassigned	Food Animal	Sepia tropomyosin	284	83715928	7
1391	Sepioteuthis lessoniana		Unassigned	Food Animal	Sepioteuthis tropomyosin	284	83715930	7
1392	Sesamum indicum	Sesame	Ses i 1	Food Plant	Sesamum Ses i 1	153	13183175	7
1393	Sesamum indicum	Sesame	Unassigned	Food Plant	Sesamum Ses i 1	153	209165427	10
1394	Sesamum indicum	Sesame	Ses i 2	Food Plant	Sesamum Ses i 2	148	5381323	7
1395	Sesamum indicum	Sesame	Ses i 3	Food Plant	Sesamum Ses i 3	585	13183177	7
1396	Sesamum indicum	Sesame	Unassigned	Food Plant	Sesamum Ses i 5	145	198250343	10
1397	Sesamum indicum	Sesame	Unassigned	Food Plant	Sesamum Ses i 5	145	75315271	10
1398	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	1009434	7
1399	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	1009436	7
1400	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	1009438	7
1401	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	1009440	7
1402	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	1009442	7
1403	Sinapis alba	White mustard	Sin a 1	Food Plant	Sinapis Sin a 1.01	145	51338758	7
1404	Sinapis alba	White mustard	Sin a 2.0101	Food Plant	Sinapis Sin a 2.01 11S globulin	510	62240390	7
1405	Sinapis alba	White mustard	Unassigned	Food Plant	Sinapis Sin a 2.01 11S globulin	523	62240392	7
1406	Sinapis alba	White mustard	Sin a 3.0101	Food Plant	Sinapis Sin a 3.01 LTP	92	156778059	12
1407	Sinapis alba	White mustard	Sin a 4.0101	Food Plant	Sinapis Sin a 4.01 profilin	131	156778061	12
1408	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum profilin-like	131	77416979	7
1409	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum profilin-like	131	77999277	7
1410	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum Sola t 1	386	21510	7
1411	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum Sola t 1	386	21512	7
1412	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum Sola t 1	386	21514	7
1413	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum Sola t 1	386	169500	7
1414	Solanum tuberosum	Potato	Sola t 1	Food Plant	Solanum Sola t 1	386	158517845	9

1415	Solanum tuberosum	Potato	Sola t 2	Food Plant	Solanum Sola t 2	188	124148	7
1416	Solanum tuberosum	Potato	Sola t 3	Food Plant	Solanum Sola t 3	222	20141344	7
1417	Solanum tuberosum	Potato	Unassigned	Food Plant	Solanum Sola t 4	217	21413	7
1418	Solanum tuberosum	Potato	Sola t 4	Food Plant	Solanum Sola t 4	221	20141714	7
1419	Solen strictus		Unassigned	Food Animal	Solen tropomyosin	284	219806602	10
1420	Solenopsis invicta	Red fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i 1	58	1336809	7
1421	Solenopsis invicta	Red fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i 1	25	1336811	7
1422	Solenopsis invicta	Red fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i 1	26	1336812	7
1423	Solenopsis invicta	Red fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i 1	26	1336813	7
1424	Solenopsis invicta	Red fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i 1	346	51093373	7
1425	Solenopsis invicta	Red fire ant	Sol i 2	Venom or Salivary	Solenopsis Sol i and Sol r Venom allergen II	138	549179	7
1426	Solenopsis richteri	Black fire ant	Unassigned	Venom or Salivary	Solenopsis Sol i and Sol r Venom allergen II	119	6136162	7
1427	Solenopsis invicta	Red fire ant	Sol i 3	Venom or Salivary	Solenopsis Venom allergen III	234	14424466	7
1428	Solenopsis richteri	Black fire ant	Unassigned	Venom or Salivary	Solenopsis Venom allergen III	211	6136163	7
1429	Solenopsis geminata	Tropical Fire Ant	Sol g 4	Venom or Salivary	Solenopsis Venom allergen IV	137	7638028	7
1430	Solenopsis geminata	Tropical Fire Ant	Sol g 4	Venom or Salivary	Solenopsis Venom allergen IV	137	7638030	7
1431	Solenopsis invicta	Red fire ant	Sol i 4	Venom or Salivary	Solenopsis Venom allergen IV	137	4038411	7
1432	Solenopsis invicta	Red fire ant	Sol i 4	Venom or Salivary	Solenopsis Venom allergen IV	137	14424465	7
1433	Solenopsis saevissima	Brazilian fire ant	Unassigned	Venom or Salivary	Solenopsis Venom allergen IV	137	291092710	12
1434	Staphylococcus aureus		Unassigned	Bacteria skin	Staphylococcus enterotoxin SEA	233	1633233	9
1435	Staphylococcus aureus		Unassigned	Bacteria skin	Staphylococcus enterotoxin SEB	254	83308249	9
1436	Staphylococcus aureus		Unassigned	Bacteria skin	Staphylococcus enterotoxin SEC	266	462026	9

1437	Staphylococcus aureus		Unassigned	Bacteria skin	Staphylococcus enterotoxin SED	258	119654	9	
1438	Staphylococcus aureus		Unassigned	Bacteria skin	Staphylococcus enterotoxin TSST 1	234	136457	9	
1439	Suidasia medanensis		Unassigned	Aero Mite	Suidasia putative Sui m 2	141	45738062	7	
1440	Sus scrofa	Pig	Unassigned	Aero Animal	Sus Porcine Pepsin	385	118572685	11	
1441	Syringa vulgaris	Lilac	Syr v 1.0101	Aero Plant	Syringa Syr v I	145	631911	7	
1442	Syringa vulgaris	Lilac	Syr v 1.0102	Aero Plant	Syringa Syr v I	145	631912	7	
1443	Syringa vulgaris	Lilac	Syr v 1.0103	Aero Plant	Syringa Syr v I	145	631913	7	
1444	Tabanus yao	Horse Fly	Tab y 1.0101	Venom or Salivary	Tabanus Tab y 1 Apyrase	554	323473390	12	
1445	Tabanus yao	Horse Fly	Tab y 2.0101	Venom or Salivary	Tabanus Tab y 2 Hyaluronidase	349	304273371	12	
1446	Tabanus yao	Horse Fly	Tab y 5.0101	Venom or Salivary	Tabanus Tab y 5	256	304273369	12	
1447	Thaumetopoea pityocampa	Pine moth	Unassigned	Contact	Thaumetopoea Tha p 1	126	301030229	12	
1448	Theragra chalcogramma	Alaska pollock	Unassigned	Food Animal	Theragra parvalbumin	109	14531020	7	
1449	Theragra chalcogramma	Alaska pollock	Unassigned	Food Animal	Theragra parvalbumin	109	14531018	7	
1450	Todarodes pacificus	Japanese flying squid	Unassigned	Food Animal	Todarodes tropomyosin	284	83715932	7	
1451	Trachurus japonicus		Unassigned	Food Animal	Trachurus parvalbumin	107	77799800	7	
1452	Tresus keenae		Unassigned	Food Animal	Tresus tropomyosin	284	219806600	10	
1453	Triatoma protracta	Western conenose	Tria p 1	Venom or Salivary	Triatoma Tria p 1	169	15426413	7	
1454	Arthroderma benhamiae	Fungus	Unassigned	Contact	Trichophyton (Arthroderma) Tri m 2	292	23894240	7	
1455	Arthroderma benhamiae	Fungus	Unassigned	Contact	Trichophyton (Arthroderma) Tri m 2	404	23894244	7	
1456	Trichophyton rubrum	Fungus	Tri r 2	Contact	Trichophyton (Arthroderma) Tri m 2	412	5813790	7	
1457	Trichophyton schoenleinii	Fungus	Unassigned	Contact	Trichophyton (Arthroderma) Tri m 2	405	74663809	12	
1458	Arthroderma benhamiae	Fungus	Unassigned	Contact	Trichophyton (Arthroderma) Tri m	726	23894232	7	

					4			
1459	Arthroderma vanbreuseghemii	Fungus	Unassigned	Contact	Trichophyton (Arthroderma) Tri m 4	726	219687753	10
1460	Trichophyton rubrum	Fungus	Tri r 4	Contact	Trichophyton tri 4 allergen (Arthroderma)	726	5813788	7
1461	Trichophyton schoenleinii	Fungus	Unassigned	Contact	Trichophyton tri 4 allergen (Arthroderma)	726	23894227	7
1462	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum Tri a 14 LTP_amylase inhibitor	113	417370	11
1463	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum 5a2 protein	94	66840998	7
1464	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum aAI CM16_17	143	195957140	10
1465	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum aAI CM16_17	143	21711	7
1466	Triticum turgidum	Wheat	Unassigned	Aero Plant	Triticum aAI CM16_17	18	244610	7
1467	Triticum turgidum subsp. durum	Wheat	Unassigned	Food Plant	Triticum aAI CM16_17	143	21916	7
1468	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum aAI CM3	168	21713	7
1469	Triticum turgidum subsp. durum	Wheat	Unassigned	Food Plant	Triticum aAI CM3	168	100834	7
1470	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Alpha/beta gliadin IgE & celiac	286	21755	7
1471	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	307	21673	7
1472	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	296	21757	7
1473	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	286	21761	7
1474	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	313	21765	7
1475	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	318	170710	7
1476	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	291	170712	7

1477	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	313	170718	7
1478	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	286	170720	7
1479	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	262	170722	7
1480	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	297	170724	7
1481	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	282	170726	7
1482	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	186	170728	7
1483	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	287	473876	7
1484	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum Alpha/beta gliadin IgE & celiac	259	1304264	7
1485	Triticum urartu	Wheat	Unassigned	Food Plant	Triticum Alpha/beta gliadin IgE & celiac	296	170740	7
1486	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum Bakers asthma allergen #4	27	3913017	7
1487	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	302	170702	7
1488	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	291	170708	7
1489	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	304	170730	7
1490	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	323	170732	7
1491	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	244	170734	7
1492	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	251	170736	7
1493	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE & celiac	327	170738	7
1494	Triticum aestivum	Wheat	Unassigned	Gliadin	Triticum gamma gliadin IgE &	279	1063270	7

					celiac			
	Triticum				Triticum gamma			
1495	aestivum	Wheat	Unassigned	Gliadin	gliadin IgE &	285	62484809	7
					celiac			
1496	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	830	21743	7
	aestivum				glutenin			
1497	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	648	21751	7
	aestivum				glutenin			
1498	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	660	21779	7
	aestivum				glutenin			
1499	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	39	21793	7
	aestivum				glutenin			
1500	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	705	22090	7
	aestivum				glutenin			
1501	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	815	170743	7
	aestivum				glutenin			
1502	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	838	736319	7
	aestivum				glutenin			
1503	Triticum	Wheat	Unassigned	Food Plant	Triticum HMW	101	897811	7
	aestivum				glutenin			
1504	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	307	21773	7
	aestivum				glutenin			
1505	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	356	21783	7
	aestivum				glutenin			
1506	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	373	75317968	7
	aestivum				glutenin			
1507	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	229	886963	7
	aestivum				glutenin			
1508	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	261	886965	7
	aestivum				glutenin			
1509	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	276	886967	7
	aestivum				glutenin			
1510	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	285	75219081	7
	aestivum				glutenin			
1511	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	326	62550933	7
	aestivum				glutenin			
1512	Triticum	Wheat	Unassigned	Food Plant	Triticum LMW	369	335331566	12
	aestivum				glutenin			
	Triticum				Triticum LMW			
1513	turgidum subsp.	Wheat	Unassigned	Food Plant	glutenin	295	21926	7
	durum							
	Triticum				Triticum LMW			
1514	turgidum subsp.	Wheat	Unassigned	Food Plant	glutenin	285	21930	7
	durum							
1515	Triticum	Wheat	Unassigned	Food Plant	Triticum omega-5	439	73912496	7
	aestivum				gliadin Tri a 19			
1516	Triticum	Wheat	Unassigned	Food Plant	Triticum omega-5	359	208605344	10

	aestivum				gliadin Tri a 19			
1517	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum omega-5 gliadin Tri a 19	272	208605346	10
1518	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum omega-5 gliadin Tri a 19	346	208605348	10
1519	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Profilin	141	1008443	7
1520	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Profilin	140	1008445	7
1521	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Profilin	138	1052817	7
1522	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Profilin	131	190684061	11
1523	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum putative flour allergens Constantin 2010	118	190684055	11
1524	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum putative flour allergens Constantin 2010	222	190684057	11
1525	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum putative flour allergens Constantin 2010	218	190684059	11
1526	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum putative flour allergens Constantin 2010	213	190684063	11
1527	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum putative leucine-rich repeat protein	137	66840996	7
1528	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum serine carboxypeptidase II	260	66840994	7
1529	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum serine carboxypeptidase II	444	125987805	10
1530	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Serine protease inhibitor	399	1885350	7
1531	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum serine proteinase inhibitor-like	84	154101366	10
1532	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum serine proteinase inhibitor-like	84	122065237	11
1533	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Thaumatin-like	173	135917	12
1534	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum Tri a 29	120	253783731	11
1535	Triticum aestivum	Wheat	Unassigned	Aero Plant	Triticum Tri a 29	120	283465827	11
1536	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Tri a 29	145	21701	7

1537	Triticum turgidum subsp. durum	Wheat	Unassigned	Food Plant	Triticum Tri a 29	145	21920	7
1538	Triticum aestivum	Wheat	Unassigned	Food Plant	Triticum Triosephosphate isomerase	253	11124572	7
1539	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 10 tropomyosin	284	148615631	9
1540	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 10 tropomyosin	201	156938915	9
1541	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 10 tropomyosin	284	48249227	9
1542	Tyrophagus putrescentiae	Dust mite	Tyr p 13	Aero Mite	Tyrophagus Tyr p 13	131	51860756	7
1543	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 13	130	121296500	9
1544	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 13	131	156938917	9
1545	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 2	141	3182907	9
1546	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 24 Troponin C	153	219815476	11
1547	Tyrophagus putrescentiae	Dust mite	Unassigned	Aero Mite	Tyrophagus Tyr p 3	285	167540622	11
1548	Vespa crabro	European hornet	Vesp c 5	Venom or Salivary	Vespa Venom allergen 5 hornets	202	549184	7
1549	Vespa crabro	European hornet	Vesp c 5	Venom or Salivary	Vespa Venom allergen 5 hornets	202	549185	7
1550	Vespa mandarinia	Wasp	Vesp m 5	Venom or Salivary	Vespa Venom allergen 5 hornets	202	6136165	7
1551	Vespa crabro	European hornet	Unassigned	Venom or Salivary	Vespa Vesp c 1 phospholipase	301	313471397	12
1552	Vespula germanica	Wasp	Unassigned	Venom or Salivary	Vespula Phospholipase A1- Ves m/v 1	300	74035843	7
1553	Vespula maculifrons	Wasp	Ves m 1	Venom or Salivary	Vespula Phospholipase A1- Ves m/v 1	300	1709545	8
1554	Vespula vulgaris	Wasp	Ves v 1	Venom or Salivary	Vespula Phospholipase A1- Ves m/v 1	336	897647	7
1555	Vespula flavopilosa	Wasp	Ves f 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	204	549189	7
1556	Vespula germanica	Wasp	Ves g 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	204	549190	7
1557	Vespula germanica	Wasp	Unassigned	Venom or Salivary	Vespula Venom allergen 5 yellow	204	74035841	7

					jackets			
1558	Vespula maculifrons	Wasp	Ves m 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	204	549191	7
1559	Vespula maculifrons	Wasp	Unassigned	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	227	85681830	7
1560	Vespula pensylvanica	Wasp	Ves p 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	204	549192	7
1561	Vespula squamosa	Wasp	Ves s 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	205	549193	7
1562	Vespula vidua	Wasp	Ves vi 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	206	549194	7
1563	Vespula vulgaris	Wasp	Ves v 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	227	162551	7
1564	Vespula vulgaris	Wasp	Ves v 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	204	4826574	7
1565	Vespula vulgaris	Wasp	Ves v 5	Venom or Salivary	Vespula Venom allergen 5 yellow jackets	209	11514279	7
1566	Vespula maculifrons	Wasp	Unassigned	Venom or Salivary	Vespula Ves m 2 Hyaluronidase	31	313118253	12
1567	Vespula squamosa	Wasp	Unassigned	Venom or Salivary	Vespula Ves s 1 phospholipase	298	313471398	12
1568	Vespula germanica	Wasp	Unassigned	Venom or Salivary	Vespula Ves v 2	331	116174180	8
1569	Vespula germanica	Wasp	Unassigned	Venom or Salivary	Vespula Ves v 2	323	116174182	8
1570	Vespula vulgaris	Wasp	Ves v 2	Venom or Salivary	Vespula Ves v 2	331	1346323	7
1571	Vespula vulgaris	Wasp	Unassigned	Venom or Salivary	Vespula Ves v 2	340	62147665	7
1572	Vespula vulgaris	Wasp	Unassigned	Venom or Salivary	Vespula Ves v 2	331	109157163	8
1573	Vespula vulgaris	Wasp	Unassigned	Venom or Salivary	Vespula Ves v 3 dipeptidylpeptidase IV	776	313471718	12
1574	Vigna radiata		Unassigned	Food Plant	Vigna Vig r 1 PR 10	155	60418924	7
1575	Vitis sp.	Grape	Unassigned	Food Plant	Vitis Lipid transfer protein P3	91	145559502	8
1576	Vitis sp.	Grape	Vit v 1	Food Plant	Vitis Vit v 1 LTP	37	462719	7
1577	Vitis sp.	Grape	Unassigned	Food Plant	Vitis Vit v 1 LTP	38	462717	7
1578	Xiphias gladius		Unassigned	Food	Xiphias Xip g 1	109	222352960	10

				Animal	beta-parvalbumin			
1579	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	263	89892721	7
1580	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	252	89892723	7
1581	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	99	105969543	8
1582	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	269	105969545	8
1583	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	270	115502167	9
1584	Zea mays	Corn	Unassigned	Aero Plant	Zea m 1 isoform	269	115502168	9
1585	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	2642324	7
1586	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644952	8
1587	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644954	8
1588	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644956	8
1589	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644958	8
1590	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644960	8
1591	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	131	110644962	8
1592	Zea mays	Corn	Unassigned	Food Plant	Zea profilin	130	110644964	8
1593	Zea mays	Corn	Unassigned	Aero Plant	Zea putative Zea m 13?	410	89892725	7
1594	Zea mays	Corn	Unassigned	Aero Plant	Zea putative Zea m 13?	404	89892727	7
1595	Zea mays	Corn	Unassigned	Aero Plant	Zea putative Zea m 13?	411	89892729	7
1596	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m 13	170	1588669	7
1597	Zea mays	Corn	Zea m 14	Food Plant	Zea Zea m 14	120	128388	7
1598	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m 25 thioredoxin	128	66841002	7
1599	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m1	269	28630919	7
1600	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m1	269	28630923	7
1601	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m1	269	14193761	8
1602	Zea mays	Corn	Unassigned	Aero Plant	Zea Zea m1	245	114794319	8
1603	Ziziphus mauritiana	Chinese-date	Unassigned	Food Plant	Ziziphus Ziz m 1	330	61225281	7

D.1 Omitted allergens from allergenonline

A few of the entries were omitted, due to wrong accession codes, unpublished sequences or other errors:

```
Blomia tropicalis Mite  UnassignedAero MiteBlomia Blo t 1.02
Brassica oleracea Cabbage  UnassignedFood PlantBrassica Bra o 3 LTP manual entry
```

E List of allergens from allergen.org

List of allergens that have been tested by the EFSA scientific opinion recommended allergen analysis described in section 2. The sequences were downloaded via `http://www.allergen.org`.

```
Aca s 13.0101 O76821 Acarus siro (Storage mite)
Act c 10.0101 P85204 Actinidia chinensis (Gold Kiwi fruit)
Act c 5.0101 P85261 Actinidia chinensis (Gold Kiwi fruit)
Act c 8.0101 D1YSM4 Actinidia chinensis (Gold Kiwi fruit)
Act d 1.0101 P00785 Actinidia deliciosa (Kiwi fruit)
Act d 10.0101 P85205 Actinidia deliciosa (Kiwi fruit)
Act d 10.0201 P85206 Actinidia deliciosa (Kiwi fruit)
Act d 11.0101 P85524 Actinidia deliciosa (Kiwi fruit)
Act d 2.0101 P81370 Actinidia deliciosa (Kiwi fruit)
Act d 3.0101 P85063 Actinidia deliciosa (Kiwi fruit)
Act d 4.0101 Q6TPK4 Actinidia deliciosa (Kiwi fruit)
Act d 5.0101 P84527 Actinidia deliciosa (Kiwi fruit)
Act d 6.0101 P83326 Actinidia deliciosa (Kiwi fruit)
Act d 7.0101 P85076 Actinidia deliciosa (Kiwi fruit)
Act d 8.0101 D1YSM5 Actinidia deliciosa (Kiwi fruit)
Aed a 1.0101 P50635 Aedes aegypti (Yellow fever mosquito)
Aed a 2.0101 P18153 Aedes aegypti (Yellow fever mosquito)
Aed a 3.0101 O01949 Aedes aegypti (Yellow fever mosquito)
Aln g 1.0101 P38948 Alnus glutinosa (Alder)
Aln g 4.0101 O81701 Alnus glutinosa (Alder)
Alt a 1.0101 P79085 Alternaria alternata (Alternaria rot fungus)
Alt a 1.0102 Q6Q128 Alternaria alternata (Alternaria rot fungus)
Alt a 10.0101 P42041 Alternaria alternata (Alternaria rot fungus)
Alt a 12.0101 P49148 Alternaria alternata (Alternaria rot fungus)
Alt a 13.0101 Q6R4B4 Alternaria alternata (Alternaria rot fungus)
Alt a 3.0101 P78983 Alternaria alternata (Alternaria rot fungus)
Alt a 4.0101 Q00002 Alternaria alternata (Alternaria rot fungus)
Alt a 5.0101 P42037 Alternaria alternata (Alternaria rot fungus)
Alt a 6.0101 Q9HDT3 Alternaria alternata (Alternaria rot fungus)
Alt a 7.0101 P42058 Alternaria alternata (Alternaria rot fungus)
Alt a 8.0101 P0C0Y4 Alternaria alternata (Alternaria rot fungus)
Ama r 2.0101 C3W2Q7 Amaranthus retroflexus (Redroot pigweed)
Amb a 1.0101 P27759 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0201 P27760 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0202 E1XUL3 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0301 P27761 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0302 P27761 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0303 P27761 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0304 E1XUL4 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0305 E1XUL5 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0401 P28744 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0402 E1XUL9 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0501 P27762 Ambrosia artemisiifolia (Short ragweed)
Amb a 1.0502 E1XUM1 Ambrosia artemisiifolia (Short ragweed)
Amb a 10.0101 Q2KN25 Ambrosia artemisiifolia (Short ragweed)
Amb a 3.0101 P00304 Ambrosia artemisiifolia (Short ragweed)
Amb a 5.0101 P02878 Ambrosia artemisiifolia (Short ragweed)
Amb a 6.0101 O04004 Ambrosia artemisiifolia (Short ragweed)
Amb a 8.0101 Q2KN24 Ambrosia artemisiifolia (Short ragweed)
Amb a 8.0102 Q2KN23 Ambrosia artemisiifolia (Short ragweed)
Amb a 9.0101 Q2KN27 Ambrosia artemisiifolia (Short ragweed)
Amb a 9.0102 Q2KN26 Ambrosia artemisiifolia (Short ragweed)
Amb p 5.0101 P43174 Ambrosia psilostachya (Western ragweed)
Amb p 5.0201 P43175 Ambrosia psilostachya (Western ragweed)
Amb t 5.0101 P10414 Ambrosia trifida (Giant ragweed)
Ana c 1.0101 Q94JN2 Ananas comosus (Pineapple)
Ana c 2.0101 O23791 Ananas comosus (Pineapple)
Ana O 1.0101 Q8L5L5 Anacardium occidentale (Cashew)
Ana o 1.0102 Q8L5L6 Anacardium occidentale (Cashew)
```

Ana o 2.0101 Q8GZP6 Anacardium occidentale (Cashew)
Ana o 3.0101 Q8H2B8 Anacardium occidentale (Cashew)
Ani s 1.0101 Q7Z1K3 Anisakis simplex (Nematode)
Ani s 2.0101 Q9NJA9 Anisakis simplex (Nematode)
Ani s 3.0101 Q9NAS5 Anisakis simplex (Nematode)
Ani s 4.0101 Q14QT4 Anisakis simplex (Nematode)
Ani s 5.0101 A1IKL2 Anisakis simplex (Nematode)
Ani s 6.0101 A1IKL3 Anisakis simplex (Nematode)
Ani s 7.0101 A9XBJ8 Anisakis simplex (Nematode)
Ani s 9.0101 B2XCP1 Anisakis simplex (Nematode)
Ant o 1.0101 Q7M1X6 Anthoxanthum odoratum (Sweet vernal grass)
Api c 1.0101 Q9BMK4 Apis cerana (Eastern hive bee)
Api d 1.0101 Q7M4I5 Apis dorsata (Giant honeybee)
Api g 1.0101 P49372 Apium graveolens (Celery)
Api g 1.0201 P92918 Apium graveolens (Celery)
Api g 3.0101 P92919 Apium graveolens (Celery)
Api g 4.0101 Q9XF37 Apium graveolens (Celery)
Api g 5.0101 P81943 Apium graveolens (Celery)
Api m 1.0101 P00630 Apis mellifera (Honey bee)
Api m 10.0101 Q1HHN7 Apis mellifera (Honey bee)
Api m 2.0101 Q08169 Apis mellifera (Honey bee)
Api m 3.0101 Q4TUB9 Apis mellifera (Honey bee)
Api m 4.0101 P01501 Apis mellifera (Honey bee)
Api m 5.0101 B2D0J4 Apis mellifera (Honey bee)
Api m 7.0101 Q8MQS8 Apis mellifera (Honey bee)
Api m 8.0101 B2D0J5 Apis mellifera (Honey bee)
Api m 9.0101 C9WMM5 Apis mellifera (Honey bee)
Ara h 1.0101 P43238 Arachis hypogaea (Peanut)
Ara h 10.0101 Q647G5 Arachis hypogaea (Peanut)
Ara h 10.0102 Q647G4 Arachis hypogaea (Peanut)
Ara h 11.0101 Q45W87 Arachis hypogaea (Peanut)
Ara h 2.0101 Q6PSU2 Arachis hypogaea (Peanut)
Ara h 2.0201 Q6PSU2 Arachis hypogaea (Peanut)
Ara h 3.0101 O82580 Arachis hypogaea (Peanut)
Ara h 3.0201 Q9SQH7 Arachis hypogaea (Peanut)
Ara h 5.0101 Q9SQI9 Arachis hypogaea (Peanut)
Ara h 6.0101 Q647G9 Arachis hypogaea (Peanut)
Ara h 7.0101 Q9SQH1 Arachis hypogaea (Peanut)
Ara h 7.0201 B4XID4 Arachis hypogaea (Peanut)
Ara h 8.0101 Q6VT83 Arachis hypogaea (Peanut)
Ara h 8.0201 B0YIU5 Arachis hypogaea (Peanut)
Ara h 9.0101 B6CEX8 Arachis hypogaea (Peanut)
Ara h 9.0201 B6CG41 Arachis hypogaea (Peanut)
Arc s 8.0101 Q8T5G9 Archaeopotamobius sibiriensis (Crustacean species)
Arg r 1.0101 Q5GQ85 Argas reflexus (Pigeon tick)
Art fr 5.0101 A7L499 Artemia franciscana (Brine shrimp)
Art v 1.0101 Q84ZX5 Artemisia vulgaris (Mugwort)
Art v 2.0101 Q7M1G9 Artemisia vulgaris (Mugwort)
Art v 3.0101 P0C088 Artemisia vulgaris (Mugwort)
Art v 3.0201 C4MGG9 Artemisia vulgaris (Mugwort)
Art v 3.0202 C4MGH0 Artemisia vulgaris (Mugwort)
Art v 3.0301 C4MGH1 Artemisia vulgaris (Mugwort)
Art v 4.0101 Q8H2C9 Artemisia vulgaris (Mugwort)
Art v 4.0201 Q8H2C8 Artemisia vulgaris (Mugwort)
Art v 5.0101 A0PJ17 Artemisia vulgaris (Mugwort)
Art v 6.0101 A0PJ16 Artemisia vulgaris (Mugwort)
Asc l 3.0101 C0L3K2 Ascaris lumbricoides (Common roundworm)
Asc s 1.0101 Q06811 Ascaris suum (Pig roundworm)
Asp f 1.0101 P67875 Aspergillus fumigatus (fungus)
Asp f 10.0101 Q12547 Aspergillus fumigatus (fungus)
Asp f 11.0101 Q9Y7F6 Aspergillus fumigatus (fungus)
Asp f 12.0101 P40292 Aspergillus fumigatus (fungus)
Asp f 13.0101 P28296 Aspergillus fumigatus (fungus)
Asp f 15.0101 O60022 Aspergillus fumigatus (fungus)
Asp f 16.0101 O74682 Aspergillus fumigatus (fungus)
Asp f 17.0101 O60025 Aspergillus fumigatus (fungus)
Asp f 18.0101 P87184 Aspergillus fumigatus (fungus)
Asp f 2.0101 P79017 Aspergillus fumigatus (fungus)
Asp f 22.0101 Q96X30 Aspergillus fumigatus (fungus)

Asp f 23.0101 Q8NKF4 Aspergillus fumigatus (fungus)
Asp f 27.0101 Q4WWX5 Aspergillus fumigatus (fungus)
Asp f 28.0101 Q1RQJ1 Aspergillus fumigatus (fungus)
Asp f 29.0101 Q4WV97 Aspergillus fumigatus (fungus)
Asp f 3.0101 O43099 Aspergillus fumigatus (fungus)
Asp f 34.0101 A4FSH5 Aspergillus fumigatus (fungus)
Asp f 4.0101 O60024 Aspergillus fumigatus (fungus)
Asp f 5.0101 P46075 Aspergillus fumigatus (fungus)
Asp f 6.0101 Q92450 Aspergillus fumigatus (fungus)
Asp f 7.0101 O42799 Aspergillus fumigatus (fungus)
Asp f 8.0101 Q9UUZ6 Aspergillus fumigatus (fungus)
Asp f 9.0101 O42800 Aspergillus fumigatus (fungus)
Asp n 14.0101 O93933 Aspergillus niger
Asp n 25.0101 P34754 Aspergillus niger
Asp o 13.0101 P12547 Aspergillus oryzae
Asp o 21.0101 P10529 Aspergillus oryzae
Ber e 1.0101 P04403 Bertholletia excelsa (Brazil nut)
Ber e 2.0101 Q84ND2 Bertholletia excelsa (Brazil nut)
Bet v 1.0101 P15494 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0102 P43177 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0103 P43178 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0104 P43179 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0105 P43180 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0106 P43183 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0107 P43185 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0108 Q96365 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0109 Q96366 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0110 Q96367 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0111 Q96368 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0112 P15494 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0113 Q96370 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0114 Q96371 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0201 P45431 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0202 P43176 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0203 P43184 Betula verrucosa (Betula pendula) (European white birch)
Bet v 1.0204 P43186 Betula verrucosa (Betula pendula) (European white birch)
Bet v 2.0101 P25816 Betula verrucosa (Betula pendula) (European white birch)
Bet v 3.0101 P43187 Betula verrucosa (Betula pendula) (European white birch)
Bet v 4.0101 Q39419 Betula verrucosa (Betula pendula) (European white birch)
Bet v 6.0101 O65002 Betula verrucosa (Betula pendula) (European white birch)
Bet v 6.0102 Q9FUW6 Betula verrucosa (Betula pendula) (European white birch)
Bet v 7.0101 P81531 Betula verrucosa (Betula pendula) (European white birch)
Beta v 1.0101 P85983 Beta vulgaris (Sugar beet)
Beta v 2.0101 P85984 Beta vulgaris (Sugar beet)
Bla g 1.0101 Q9UAM5 Blattella germanica (German cockroach)
Bla g 1.0201 O96522 Blattella germanica (German cockroach)
Bla g 2.0101 P54958 Blattella germanica (German cockroach)
Bla g 4.0101 P54962 Blattella germanica (German cockroach)
Bla g 5.0101 O18598 Blattella germanica (German cockroach)
Bla g 6.0101 Q1A7B3 Blattella germanica (German cockroach)
Bla g 6.0201 Q1A7B2 Blattella germanica (German cockroach)
Bla g 6.0301 Q1A7B1 Blattella germanica (German cockroach)
Bla g 7.0101 Q9NG56 Blattella germanica (German cockroach)
Bla g 8.0101 A0ERA8 Blattella germanica (German cockroach)
Blo t 1.0101 Q95PJ4 Blomia tropicalis (Mite)
Blo t 10.0101 A7XZI4 Blomia tropicalis (Mite)
Blo t 11.0101 Q8MUF6 Blomia tropicalis (Mite)
Blo t 12.0101 Q17282 Blomia tropicalis (Mite)
Blo t 13.0101 Q17284 Blomia tropicalis (Mite)
Blo t 2.0101 Q1M2P1 Blomia tropicalis (Mite)
Blo t 2.0102 Q1M2P2 Blomia tropicalis (Mite)
Blo t 2.0103 Q1M2P3 Blomia tropicalis (Mite)
Blo t 21.0101 A7IZE9 Blomia tropicalis (Mite)
Blo t 3.0101 Q8I916 Blomia tropicalis (Mite)
Blo t 5.0101 O96870 Blomia tropicalis (Mite)
Bom p 1.0101 Q7M4I6 Bombus pennsylvanicus (Bumble bee)
Bom p 4.0101 Q7M4I3 Bombus pennsylvanicus (Bumble bee)
Bom t 1.0101 P82971 Bombus terrestris (Bumble bee)
Bos d 2.0101 Q28133 Bos domesticus (domestic cattle)

Bos d 2.0102 Q28133 Bos domesticus (domestic cattle)
Bos d 2.0103 Q28133 Bos domesticus (domestic cattle)
Bos d 3.0101 Q28050 Bos domesticus (domestic cattle)
Bos d 4.0101 P00711 Bos domesticus (domestic cattle)
Bos d 5.0101 P02754 Bos domesticus (domestic cattle)
Bos d 6.0101 P02769 Bos domesticus (domestic cattle)
Bra j 1.0101 P80207 Brassica juncea (Oriental mustard)
Bra n 1.0101 P80208 Brassica napus (Rapeseed)
Bra r 1.0101 Q42473 Brassica rapa (Turnip)
Bra r 2.0101 P81729 Brassica rapa (Turnip)
Can f 1.0101 O18873 Canis familiaris (dog)
Can f 2.0101 O18874 Canis familiaris (dog)
Can f 3.0101 P49822 Canis familiaris (dog)
Can f 5.0101 P09582 Canis familiaris (dog)
Cand a 1.0101 P43067 Candida albicans (Yeast)
Cand a 3.0101 Q6YK78 Candida albicans (Yeast)
Cand b 2.0101 P14292 Candida boidinii (Yeast)
Cap a 1w.0101 Q9ARG0 Capsicum annuum (Bell pepper)
Cap a 2.0101 Q93YI9 Capsicum annuum (Bell pepper)
Car b 1.0101 P38949 Carpinus betulus (Hornbeam)
Car b 1.0102 P38949 Carpinus betulus (Hornbeam)
Car b 1.0103 Q96377 Carpinus betulus (Hornbeam)
Car b 1.0104 Q96378 Carpinus betulus (Hornbeam)
Car b 1.0105 Q96379 Carpinus betulus (Hornbeam)
Car b 1.0106 Q96503 Carpinus betulus (Hornbeam)
Car b 1.0107 Q96501 Carpinus betulus (Hornbeam)
Car b 1.0108 Q96380 Carpinus betulus (Hornbeam)
Car b 1.0109 B6RQR6 Carpinus betulus (Hornbeam)
Car b 1.0110 B6RQR7 Carpinus betulus (Hornbeam)
Car b 1.0111 B6RQR8 Carpinus betulus (Hornbeam)
Car b 1.0112 B6RQR9 Carpinus betulus (Hornbeam)
Car b 1.0113 B6RQS0 Carpinus betulus (Hornbeam)
Car b 1.0201 P38950 Carpinus betulus (Hornbeam)
Car b 1.0301 Q96381 Carpinus betulus (Hornbeam)
Car b 1.0302 Q96382 Carpinus betulus (Hornbeam)
Car i 1.0101 Q84XA9 Carya illinoinensis (Pecan)
Car i 4.0101 B5KVH4 Carya illinoinensis (Pecan)
Cas s 1.0101 B7TWE3 Castanea sativa (Chestnut)
Cat r 1.0101 Q39613 Catharanthus roseus (Rosy periwinkle)
Cav p 1.0101 P83507 Cavia porcellus (guinea pig)
Cav p 2.0101 F0UZ11 Cavia porcellus (guinea pig)
Cav p 3.0101 F0UZ12 Cavia porcellus (guinea pig)
Cha f 1.0101 Q9N2R3 Charybdis feriatus (Crab)
Cha o 1.0101 Q96385 Chamaecyparis obtusa (Japanese cypress)
Cha o 2.0101 Q7M1E7 Chamaecyparis obtusa (Japanese cypress)
Che a 1.0101 Q8LGR0 Chenopodium album (Pigweed)
Che a 2.0101 Q84V37 Chenopodium album (Pigweed)
Che a 3.0101 Q84V36 Chenopodium album (Pigweed)
Chi k 10.0101 O96764 Chironomus kiiensis (Midge)
Chi t 1.0101 P02229 Chironomus thummi thummi (Midge)
Chi t 1.0201 P02230 Chironomus thummi thummi (Midge)
Chi t 2.0101 P02221 Chironomus thummi thummi (Midge)
Chi t 2.0102 P02221 Chironomus thummi thummi (Midge)
Chi t 3.0101 P02222 Chironomus thummi thummi (Midge)
Chi t 3.0201 P02224 Chironomus thummi thummi (Midge)
Chi t 3.0301 P02226 Chironomus thummi thummi (Midge)
Chi t 3.0401 P02223 Chironomus thummi thummi (Midge)
Chi t 3.0501 P12548 Chironomus thummi thummi (Midge)
Chi t 3.0601 P84296 Chironomus thummi thummi (Midge)
Chi t 3.0701 P84298 Chironomus thummi thummi (Midge)
Chi t 3.0702 P12549 Chironomus thummi thummi (Midge)
Chi t 3.0801 P12550 Chironomus thummi thummi (Midge)
Chi t 3.0901 P02227 Chironomus thummi thummi (Midge)
Chi t 4.0101 P02231 Chironomus thummi thummi (Midge)
Chi t 9.0101 P02228 Chironomus thummi thummi (Midge)
Cit l 3.0101 P84160 Citrus limon (Lemon)
Cit s 1.0101 P84159 Citrus sinensis (Sweet orange)
Cit s 2.0101 P84177 Citrus sinensis (Sweet orange)
Cit s 3.0102 Q6EV47 Citrus sinensis (Sweet orange)

Cla c 9.0101 B0L807 Cladosporium cladosporioides
Cla h 10.0101 P40108 Cladosporium herbarum
Cla h 12.0101 P50344 Cladosporium herbarum
Cla h 5.0101 P42039 Cladosporium herbarum
Cla h 6.0101 P42040 Cladosporium herbarum
Cla h 7.0101 P42059 Cladosporium herbarum
Cla h 8.0101 P0C0Y5 Cladosporium herbarum
Cla h 9.0101 B7ZK61 Cladosporium herbarum
Clu h 1.0101 C6GKU6 Clupea harengus (Atlantic herring)
Clu h 1.0201 C6GKU7 Clupea harengus (Atlantic herring)
Clu h 1.0301 C6GKU8 Clupea harengus (Atlantic herring)
Cop c 1.0101 Q9Y7G3 Coprinus comatus (Shaggy mane)
Cop c 2.0101 Q9UW02 Coprinus comatus (Shaggy mane)
Cop c 3.0101 Q9UW01 Coprinus comatus (Shaggy mane)
Cop c 5.0101 Q9UW00 Coprinus comatus (Shaggy mane)
Cop c 7.0101 Q9UVZ9 Coprinus comatus (Shaggy mane)
Cor a 1.0101 Q08407 Corylus avellana (Hazel)
Cor a 1.0102 Q08407 Corylus avellana (Hazel)
Cor a 1.0103 Q08407 Corylus avellana (Hazel)
Cor a 1.0104 Q08407 Corylus avellana (Hazel)
Cor a 1.0201 Q39453 Corylus avellana (Hazel)
Cor a 1.0301 Q39454 Corylus avellana (Hazel)
Cor a 1.0401 Q9SWR4 Corylus avellana (Hazel)
Cor a 1.0402 Q9FPK4 Corylus avellana (Hazel)
Cor a 1.0403 Q9FPK3 Corylus avellana (Hazel)
Cor a 1.0404 Q9FPK2 Corylus avellana (Hazel)
Cor a 10.0101 Q9FSY7 Corylus avellana (Hazel)
Cor a 11.0101 Q8S4P9 Corylus avellana (Hazel)
Cor a 12.0101 Q84T21 Corylus avellana (Hazel)
Cor a 13.0101 Q84T91 Corylus avellana (Hazel)
Cor a 14.0101 D0PWG2 Corylus avellana (Hazel)
Cor a 2.0101 Q9AXH5 Corylus avellana (Hazel)
Cor a 2.0102 Q9AXH4 Corylus avellana (Hazel)
Cor a 8.0101 Q9ATH2 Corylus avellana (Hazel)
Cor a 9.0101 Q8W1C2 Corylus avellana (Hazel)
Cra c 1.0101 D7F1J4 Crangon crangon (North Sea shrimp)
Cra c 2.0101 D7F1J5 Crangon crangon (North Sea shrimp)
Cra c 4.0101 D7F1P9 Crangon crangon (North Sea shrimp)
Cra c 5.0101 D7F1Q1 Crangon crangon (North Sea shrimp)
Cra c 6.0101 D7F1Q2 Crangon crangon (North Sea shrimp)
Cra c 8.0101 D7F1Q0 Crangon crangon (North Sea shrimp)
Cro s 1.0101 Q29W25 Crocus sativus (Saffron crocus)
Cry j 1.0101 P18632 Cryptomeria japonica (Sugi)
Cry j 1.0102 P18632 Cryptomeria japonica (Sugi)
Cry j 1.0103 P18632 Cryptomeria japonica (Sugi)
Cry j 1.0103 Q8RUR1 Cryptomeria japonica (Sugi)
Cry j 1.0103 Q8RUR1 Cryptomeria japonica (Sugi)
Cry j 2.0101 P43212 Cryptomeria japonica (Sugi)
Cte f 1.0101 Q94424 Ctenocephalides felis felis (Cat flea)
Cte f 2.0101 Q9NH66 Ctenocephalides felis felis (Cat flea)
Cuc m 1.0101 Q39547 Cucumis melo (Muskmelon)
Cuc m 2.0101 Q5FX67 Cucumis melo (Muskmelon)
Cuc m 3.0101 P83834 Cucumis melo (Muskmelon)
Cup a 1.0101 Q9SCG9 Cupressus arizonica (Cypress)
Cup s 1.0101 Q9M4S6 Cupressus sempervirens (Common cypress)
Cup s 1.0102 Q9M4S5 Cupressus sempervirens (Common cypress)
Cup s 1.0103 Q9M4S4 Cupressus sempervirens (Common cypress)
Cup s 1.0104 Q9M4S3 Cupressus sempervirens (Common cypress)
Cup s 1.0105 Q9M4S2 Cupressus sempervirens (Common cypress)
Cup s 3.0101 Q69CS2 Cupressus sempervirens (Common cypress)
Cup s 3.0102 Q69CS3 Cupressus sempervirens (Common cypress)
Cup s 3.0103 Q69CS2 Cupressus sempervirens (Common cypress)
Cur l 2.0101 Q96VP4 Curvularia lunata (Synonym: Cochliobolus lunatus)
Cur l 3.0101 Q96VP3 Curvularia lunata (Synonym: Cochliobolus lunatus)
Cyn d 1.0101 O04701 Cynodon dactylon (Bermuda grass)
Cyn d 1.0201 Q947S7 Cynodon dactylon (Bermuda grass)
Cyn d 1.0202 Q947S6 Cynodon dactylon (Bermuda grass)
Cyn d 1.0203 Q947S4 Cynodon dactylon (Bermuda grass)
Cyn d 1.0204 Q9FVM0 Cynodon dactylon (Bermuda grass)

Cyn d 12.0101 O04725 Cynodon dactylon (Bermuda grass)
Cyn d 15.0101 Q7XYF2 Cynodon dactylon (Bermuda grass)
Cyn d 23.0101 Q7XYF3 Cynodon dactylon (Bermuda grass)
Cyn d 24.0101 Q647J6 Cynodon dactylon (Bermuda grass)
Cyn d 7.0101 P94092 Cynodon dactylon (Bermuda grass)
Dac g 1.0101 Q7M1X8 Dactylis glomerata (Orchard grass)
Dac g 2.0101 Q41183 Dactylis glomerata (Orchard grass)
Dac g 3.0101 P93124 Dactylis glomerata (Orchard grass)
Dac g 4.0101 P82946 Dactylis glomerata (Orchard grass)
Dau c 1.0101 O04298 Daucus carota (Carrot)
Dau c 1.0102 O04298 Daucus carota (Carrot)
Dau c 1.0103 O04298 Daucus carota (Carrot)
Dau c 1.0104 O04298 Daucus carota (Carrot)
Dau c 1.0105 O04298 Daucus carota (Carrot)
Dau c 1.0201 Q8SAE7 Daucus carota (Carrot)
Dau c 4.0101 Q8SAE6 Daucus carota (Carrot)
Der f 1.0101 Q58A71 Dermatophagoides farinae (American house dust mite)
Der f 1.0102 Q3HWZ4 Dermatophagoides farinae (American house dust mite)
Der f 1.0103 Q3HWZ4 Dermatophagoides farinae (American house dust mite)
Der f 1.0104 Q3HWZ4 Dermatophagoides farinae (American house dust mite)
Der f 1.0105 Q3HWZ4 Dermatophagoides farinae (American house dust mite)
Der f 1.0106 P16311 Dermatophagoides farinae (American house dust mite)
Der f 1.0108 A1YW11 Dermatophagoides farinae (American house dust mite)
Der f 1.0109 A1YW12 Dermatophagoides farinae (American house dust mite)
Der f 1.0110 A1YW13 Dermatophagoides farinae (American house dust mite)
Der f 10.0101 Q23939 Dermatophagoides farinae (American house dust mite)
Der f 11.0101 Q967Z0 Dermatophagoides farinae (American house dust mite)
Der f 13.0101 Q1M2P5 Dermatophagoides farinae (American house dust mite)
Der f 14.0101 Q94507 Dermatophagoides farinae (American house dust mite)
Der f 15.0101 Q9U6R7 Dermatophagoides farinae (American house dust mite)
Der f 16.0101 Q8MVU3 Dermatophagoides farinae (American house dust mite)
Der f 18.0101 Q86R84 Dermatophagoides farinae (American house dust mite)
Der f 2.0101 Q00855 Dermatophagoides farinae (American house dust mite)
Der f 2.0102 Q00855 Dermatophagoides farinae (American house dust mite)
Der f 2.0103 Q00855 Dermatophagoides farinae (American house dust mite)
Der f 2.0105 Q8WQK5 Dermatophagoides farinae (American house dust mite)
Der f 2.0106 Q5TIW2 Dermatophagoides farinae (American house dust mite)
Der f 2.0107 Q5TIW1 Dermatophagoides farinae (American house dust mite)
Der f 2.0108 Q5TIW0 Dermatophagoides farinae (American house dust mite)
Der f 2.0109 Q3HWZ2 Dermatophagoides farinae (American house dust mite)
Der f 2.0112 A1KXH0 Dermatophagoides farinae (American house dust mite)
Der f 2.0116 A3F5F1 Dermatophagoides farinae (American house dust mite)
Der f 22.0101 A5X5X4 Dermatophagoides farinae (American house dust mite)
Der f 3.0101 P49275 Dermatophagoides farinae (American house dust mite)
Der f 6.0101 P49276 Dermatophagoides farinae (American house dust mite)
Der f 7.0101 Q26456 Dermatophagoides farinae (American house dust mite)
Der m 1.0101 P16312 Dermatophagoides microceras (House dust mite)
Der p 1.0101 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0102 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0103 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0104 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0105 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0106 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0107 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0108 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0109 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0110 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0111 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0112 P08176 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0113 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0114 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0115 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0116 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0117 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0118 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0119 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0120 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0121 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0122 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)

Der p 1.0123 Q3HWZ5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 1.0124 C7T6L6 Dermatophagoides pteronyssinus (European house dust mite)
Der p 10.0101 O18416 Dermatophagoides pteronyssinus (European house dust mite)
Der p 11.0101 Q6Y2F9 Dermatophagoides pteronyssinus (European house dust mite)
Der p 14.0101 Q8N0N0 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0101 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0102 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0103 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0104 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0105 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0106 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0107 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0108 P49278 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0110 C7T6L5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0114 Q1H8P8 Dermatophagoides pteronyssinus (European house dust mite)
Der p 2.0115 C7T6L5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 21.0101 Q2L7C5 Dermatophagoides pteronyssinus (European house dust mite)
Der p 3.0101 P39675 Dermatophagoides pteronyssinus (European house dust mite)
Der p 4.0101 Q9Y197 Dermatophagoides pteronyssinus (European house dust mite)
Der p 5.0101 P14004 Dermatophagoides pteronyssinus (European house dust mite)
Der p 5.0102 P14004 Dermatophagoides pteronyssinus (European house dust mite)
Der p 6.0101 P49277 Dermatophagoides pteronyssinus (European house dust mite)
Der p 7.0101 P49273 Dermatophagoides pteronyssinus (European house dust mite)
Der p 8.0101 P46419 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0101 Q7Z163 Dermatophagoides pteronyssinus (European house dust mite)
Der p 9.0102 Q8MWR4 Dermatophagoides pteronyssinus (European house dust mite)
Dol a 5.0101 Q05108 Dolichovespula arenaria (Yellow hornet)
Dol m 1.0101 Q06478 Dolichovespula maculata (White face hornet)
Dol m 1.02 P53357 Dolichovespula maculata (White face hornet)
Dol m 2.0101 P49371 Dolichovespula maculata (White face hornet)
Dol m 5.0101 P10736 Dolichovespula maculata (White face hornet)
Dol m 5.02 P10737 Dolichovespula maculata (White face hornet)
Epi p 1.0101 P83340 Epicoccum purpurascens (Soil fungus)
Equ c 1.0101 Q95182 Equus caballus (domestic horse)
Equ c 2.0101 P81216 Equus caballus (domestic horse)
Equ c 2.0102 P81217 Equus caballus (domestic horse)
Equ c 3.0101 P35747 Equus caballus (domestic horse)
Equ c 4.0101 P82615 Equus caballus (domestic horse)
Eur m 1.0101 P25780 Euroglyphus maynei (House dust mite)
Eur m 1.0102 P25780 Euroglyphus maynei (House dust mite)
Eur m 14.0101 Q9U785 Euroglyphus maynei (House dust mite)
Eur m 2.0101 Q9TZZ2 Euroglyphus maynei (House dust mite)
Eur m 2.0102 Q9TZZ2 Euroglyphus maynei (House dust mite)
Eur m 3.0101 O97370 Euroglyphus maynei (House dust mite)
Eur m 4.0101 Q9Y196 Euroglyphus maynei (House dust mite)
Fel d 1.0101 P30438 Felis domesticus (cat)
Fel d 2.0101 P49064 Felis domesticus (cat)
Fel d 3.0101 Q8WNR9 Felis domesticus (cat)
Fel d 4.0101 Q5VFH6 Felis domesticus (cat)
For t 1.0101 B2ZPG6 Forcipomyia taiwana (Biting midge)
For t 2.0101 B2ZPG7 Forcipomyia taiwana (Biting midge)
Fra a 1.0101 Q5ULZ4 Fragaria ananassa (Strawberry)
Fra a 3.0101 Q8VX12 Fragaria ananassa (Strawberry)
Fra a 3.0202 Q4PLT6 Fragaria ananassa (Strawberry)
Fra e 1.0101 Q7XAV4 Fraxinus excelsior (Ash)
Fra e 1.0102 Q5EXJ6 Fraxinus excelsior (Ash)
Fra e 1.0201 Q6U740 Fraxinus excelsior (Ash)
Fus c 1.0101 Q8TFM9 Fusarium culmorum (N.A.)
Fus c 2.0101 Q8TFM8 Fusarium culmorum (N.A.)
Gad c 1.0101 P02622 Gadus callarias (Baltic cod)
Gal d 1.0101 P01005 Gallus domesticus (chicken)
Gal d 2.0101 P01012 Gallus domesticus (chicken)
Gal d 3.0101 P02789 Gallus domesticus (chicken)
Gal d 4.0101 P00698 Gallus domesticus (chicken)
Gal d 5.0101 P19121 Gallus domesticus (chicken)
Gal d 6.0101 P87498 Gallus domesticus (chicken)
Gly d 2.0101 Q9U5P7 Glycyphagus domesticus (Storage mite)
Gly d 2.0201 Q9NFQ4 Glycyphagus domesticus (Storage mite)
Gly m 1.0101 Q9S8F3 Glycine max (Soybean)

Gly m 1.0102 Q9S8F2 Glycine max (Soybean)
Gly m 3.0101 O65809 Glycine max (Soybean)
Gly m 3.0102 O65810 Glycine max (Soybean)
Gly m 4.0101 P26987 Glycine max (Soybean)
Gly m 5.0101 O22120 Glycine max (Soybean)
Gly m 5.0201 Q9FZP9 Glycine max (Soybean)
Gly m 5.0301 P25974 Glycine max (Soybean)
Gly m 5.0302 P25974 Glycine max (Soybean)
Gly m 6.0101 P04776 Glycine max (Soybean)
Gly m 6.0201 P04405 Glycine max (Soybean)
Gly m 6.0301 P11828 Glycine max (Soybean)
Gly m 6.0401 Q9SB11 Glycine max (Soybean)
Gly m 6.0501 Q7GC77 Glycine max (Soybean)
Hel a 2.0101 O81982 Helianthus annuus (Sunflower)
Hel a 3.0101 Q7X9Q5 Helianthus annuus (Sunflower)
Hel as 1.0101 O97192 Helix aspersa (Brown garden snail)
Hev b 1.0101 P15252 Hevea brasiliensis (Para rubber tree (latex))
Hev b 10.0101 P35017 Hevea brasiliensis (Para rubber tree (latex))
Hev b 10.0102 Q9STB5 Hevea brasiliensis (Para rubber tree (latex))
Hev b 10.0103 Q9FSJ2 Hevea brasiliensis (Para rubber tree (latex))
Hev b 11.0101 Q949H3 Hevea brasiliensis (Para rubber tree (latex))
Hev b 11.0102 Q8GUD7 Hevea brasiliensis (Para rubber tree (latex))
Hev b 12.0101 Q8RYA8 Hevea brasiliensis (Para rubber tree (latex))
Hev b 13.0101 Q7Y1X1 Hevea brasiliensis (Para rubber tree (latex))
Hev b 2.0101 P52407 Hevea brasiliensis (Para rubber tree (latex))
Hev b 3.0101 O82803 Hevea brasiliensis (Para rubber tree (latex))
Hev b 4.0101 Q6T4P0 Hevea brasiliensis (Para rubber tree (latex))
Hev b 5.0101 Q39967 Hevea brasiliensis (Para rubber tree (latex))
Hev b 6.01 P02877 Hevea brasiliensis (Para rubber tree (latex))
Hev b 6.02 P02877 Hevea brasiliensis (Para rubber tree (latex))
Hev b 6.03 P02877 Hevea brasiliensis (Para rubber tree (latex))
Hev b 7.01 O04008 Hevea brasiliensis (Para rubber tree (latex))
Hev b 7.02 O65811 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0101 O65812 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0102 Q9STB6 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0201 Q9M7N0 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0202 Q9M7M9 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0203 Q9M7M8 Hevea brasiliensis (Para rubber tree (latex))
Hev b 8.0204 Q9LEI8 Hevea brasiliensis (Para rubber tree (latex))
Hev b 9.0101 Q9LEJ0 Hevea brasiliensis (Para rubber tree (latex))
Hol l 1.0101 P43216 Holcus lanatus (Velvet grass)
Hol l 1.0102 P43216 Holcus lanatus (Velvet grass)
Hol l 5.0101 O23972 Holcus lanatus (Velvet grass)
Hol l 5.0201 O23971 Holcus lanatus (Velvet grass)
Hom a 1.0101 O44119 Homarus americanus (American lobster)
Hom a 1.0102 O44119 Homarus americanus (American lobster)
Hom a 6.0101 P29291 Homarus americanus (American lobster)
Hom s 1.0101 O43290 Homo sapiens (human autoallergens)
Hom s 2.0101 Q13765 Homo sapiens (human autoallergens)
Hom s 3.0101 Q13845 Homo sapiens (human autoallergens)
Hom s 4.0101 O75785 Homo sapiens (human autoallergens)
Hom s 5.0101 P02538 Homo sapiens (human autoallergens)
Hor v 12.0101 P52184 Hordeum vulgare (Barley)
Hor v 15.0101 P16968 Hordeum vulgare (Barley)
Hor v 20.0101 P80198 Hordeum vulgare (Barley)
Hor v 5.0101 O04828 Hordeum vulgare (Barley)
Hum j 1.0101 Q7XBE3 Humulus japonicus (Japanese hop)
Jug n 1.0101 Q7Y1C2 Juglans nigra (Black walnut)
Jug n 2.0101 Q7Y1C1 Juglans nigra (Black walnut)
Jug r 1.0101 P93198 Juglans regia (English walnut)
Jug r 2.0101 Q9SEW4 Juglans regia (English walnut)
Jug r 4.0101 Q2TPW5 Juglans regia (English walnut)
Jun a 1.010101 P81294 Juniperus ashei (Mountain cedar)
Jun a 1.010102 P81294 Juniperus ashei (Mountain cedar)
Jun a 2.0101 Q9FY19 Juniperus ashei (Mountain cedar)
Jun a 3.0101 P81295 Juniperus ashei (Mountain cedar)
Jun o 4.0101 O64943 Juniperus oxycedrus (Prickly juniper)
Jun v 1.0101 Q9LLT2 Juniperus virginiana (Eastern red cedar)
Jun v 1.0102 Q9LLT1 Juniperus virginiana (Eastern red cedar)

Jun v 3.010101 Q9LD79 Juniperus virginiana (Eastern red cedar)
Jun v 3.010102 Q9LD79 Juniperus virginiana (Eastern red cedar)
Len c 1.0101 Q84UI1 Lens culinaris (Lentil)
Len c 1.0102 Q84UI0 Lens culinaris (Lentil)
Lep d 10.0101 Q9NFZ4 Lepidoglyphus destructor (Storage mite)
Lep d 13.0101 Q9U5P1 Lepidoglyphus destructor (Storage mite)
Lep d 2.0101 P80384 Lepidoglyphus destructor (Storage mite)
Lep d 2.0102 P80384 Lepidoglyphus destructor (Storage mite)
Lep d 2.0201 P80384 Lepidoglyphus destructor (Storage mite)
Lep d 2.0202 P80384 Lepidoglyphus destructor (Storage mite)
Lep d 5.0101 Q9U5P2 Lepidoglyphus destructor (Storage mite)
Lep d 5.0102 Q1M2N1 Lepidoglyphus destructor (Storage mite)
Lep d 5.0103 Q1M2N0 Lepidoglyphus destructor (Storage mite)
Lep d 7.0101 Q9U1G2 Lepidoglyphus destructor (Storage mite)
Lep s 1.0101 Q8T380 Lepisma saccharina (Silverfish)
Lep w 1.0101 B5WX08 Lepidorhombus whiffiagonis (Megrim, Whiff, Gallo)
Lig v 1.0101 O82015 Ligustrum vulgare (Privet)
Lig v 1.0102 O82015 Ligustrum vulgare (Privet)
Lit c 1.0101 Q941H7 Litchi chinensis (Litchi)
Lit v 1.0101 B4YAH6 Litopenaeus vannamei (White shrimp)
Lit v 2.0101 Q004B5 Litopenaeus vannamei (White shrimp)
Lit v 3.0101 B7SNI3 Litopenaeus vannamei (White shrimp)
Lit v 4.0101 C7A639 Litopenaeus vannamei (White shrimp)
Lol p 1.0101 P14946 Lolium perenne (Rye grass)
Lol p 1.0102 P14946 Lolium perenne (Rye grass)
Lol p 1.0103 Q9SC98 Lolium perenne (Rye grass)
Lol p 11.0101 Q7M1X5 Lolium perenne (Rye grass)
Lol p 2.0101 P14947 Lolium perenne (Rye grass)
Lol p 3.0101 P14948 Lolium perenne (Rye grass)
Lol p 4.0101 Q5TIW3 Lolium perenne (Rye grass)
Lol p 5.0101 Q40237 Lolium perenne (Rye grass)
Lol p 5.0102 Q40240 Lolium perenne (Rye grass)
Lup an 1.0101 B8Q5G0 Lupinus angustifolius (Narrow-leaved blue lupin)
Sola l 1.0101 Q93YG7 Solamun lycopersicum (Lycopersicon esculentum) (Tomato)
Sola l 2.0101 Q547Q0 Solamun lycopersicum (Lycopersicon esculentum) (Tomato)
Sola l 2.0201 Q8RVW4 Solamun lycopersicum (Lycopersicon esculentum) (Tomato)
Sola l 3.0101 P93224 Solamun lycopersicum (Lycopersicon esculentum) (Tomato)
Mal d 1.0101 P43211 Malus domestica (Apple)
Mal d 1.0102 P43211 Malus domestica (Apple)
Mal d 1.0103 Q9SYV2 Malus domestica (Apple)
Mal d 1.0104 Q9SYV5 Malus domestica (Apple)
Mal d 1.0105 Q9SYV6 Malus domestica (Apple)
Mal d 1.0106 Q9SYV7 Malus domestica (Apple)
Mal d 1.0107 Q9SYV8 Malus domestica (Apple)
Mal d 1.0108 Q9SYW3 Malus domestica (Apple)
Mal d 1.0109 Q941P6 Malus domestica (Apple)
Mal d 1.0201 Q40280 Malus domestica (Apple)
Mal d 1.0202 Q9S7M5 Malus domestica (Apple)
Mal d 1.0203 Q9SYV3 Malus domestica (Apple)
Mal d 1.0204 Q9SYV4 Malus domestica (Apple)
Mal d 1.0205 Q9SYV9 Malus domestica (Apple)
Mal d 1.0206 Q40280 Malus domestica (Apple)
Mal d 1.0207 Q941P5 Malus domestica (Apple)
Mal d 1.0208 Q8L6K9 Malus domestica (Apple)
Mal d 1.0301 Q43549 Malus domestica (Apple)
Mal d 1.0302 Q941P8 Malus domestica (Apple)
Mal d 1.0303 Q941P7 Malus domestica (Apple)
Mal d 1.0304 Q84LA7 Malus domestica (Apple)
Mal d 1.0401 Q43550 Malus domestica (Apple)
Mal d 1.0402 Q43551 Malus domestica (Apple)
Mal d 1.0403 Q43552 Malus domestica (Apple)
Mal d 2.0101 Q9FSG7 Malus domestica (Apple)
Mal d 4.0101 Q9XF42 Malus domestica (Apple)
Mal d 4.0102 Q84RR5 Malus domestica (Apple)
Mal d 4.0201 Q9XF41 Malus domestica (Apple)
Mal d 4.0202 Q84RR6 Malus domestica (Apple)
Mal d 4.0301 Q9XF40 Malus domestica (Apple)
Mal d 4.0302 Q84RR7 Malus domestica (Apple)
Mala f 2.0101 P56577 Malassezia furfur (Pityriasis versicolor infect. agent)

Mala f 3.0101 P56578 Malassezia furfur (Pityriasis versicolor infect. agent)
Mala f 4.0101 Q9Y750 Malassezia furfur (Pityriasis versicolor infect. agent)
Mala s 1.0101 Q01940 Malassezia sympodialis
Mala s 10.0101 Q8TGH3 Malassezia sympodialis
Mala s 11.0101 Q873M4 Malassezia sympodialis
Mala s 12.0101 Q5GMY3 Malassezia sympodialis
Mala s 13.0101 Q1RQI9 Malassezia sympodialis
Mala s 5.0101 O93969 Malassezia sympodialis
Mala s 6.0101 O93970 Malassezia sympodialis
Mala s 7.0101 O93971 Malassezia sympodialis
Mala s 8.0101 O93972 Malassezia sympodialis
Mala s 9.0101 O93973 Malassezia sympodialis
Mer a 1.0101 O49894 Mercurialis annua (Annual mercury)
Met e 1.0101 Q25456 Metapenaeus ensis (Shrimp)
Mor n 3.0101 P85894 Morus nigra (Mulberry)
Mus a 1.0101 Q94JN3 Musa acuminata (Banana)
Mus a 2.0101 Q8VXF1 Musa acuminata (Banana)
Mus a 3.0101 P86333 Musa acuminata (Banana)
Mus m 1.0101 P02762 Mus musculus (mouse)
Mus m 1.0102 P11589 Mus musculus (mouse)
Myr p 1.0101 Q07932 Myrmecia pilosula (Australian jumper ant)
Myr p 2.0101 Q26464 Myrmecia pilosula (Australian jumper ant)
Myr p 2.0102 Q26464 Myrmecia pilosula (Australian jumper ant)
Myr p 3.0101 Q68Y22 Myrmecia pilosula (Australian jumper ant)
Ole e 1.0101 P19963 Olea europea (Olive)
Ole e 1.0105 P19963 Olea europea (Olive)
Ole e 1.0106 P19963 Olea europea (Olive)
Ole e 1.0107 P19963 Olea europea (Olive)
Ole e 10.0101 Q84V39 Olea europea (Olive)
Ole e 2.0101 O24169 Olea europea (Olive)
Ole e 3.0101 O81092 Olea europea (Olive)
Ole e 4.0101 P80741 Olea europea (Olive)
Ole e 5.0101 P80740 Olea europea (Olive)
Ole e 6.0101 O24172 Olea europea (Olive)
Ole e 7.0101 P81430 Olea europea (Olive)
Ole e 8.0101 Q9M7R0 Olea europea (Olive)
Ole e 9.0101 Q94G86 Olea europea (Olive)
Ory s 1.0101 Q40638 Oryza sativa (Rice)
Ory s 12.0101 Q9FUD1 Oryza sativa (Rice)
Pan s 1.0101 O61379 Panulirus stimpsoni (Spiny lobster)
Par j 1.0101 P43217 Parietaria judaica (Pellitory-of-the-Wall)
Par j 1.0102 O04404 Parietaria judaica (Pellitory-of-the-Wall)
Par j 1.0103 Q1JTN5 Parietaria judaica (Pellitory-of-the-Wall)
Par j 1.0201 Q40905 Parietaria judaica (Pellitory-of-the-Wall)
Par j 2.0101 P55958 Parietaria judaica (Pellitory-of-the-Wall)
Par j 2.0102 O04403 Parietaria judaica (Pellitory-of-the-Wall)
Par j 3.0101 Q9XG85 Parietaria judaica (Pellitory-of-the-Wall)
Par j 3.0102 Q9T0M8 Parietaria judaica (Pellitory-of-the-Wall)
Par j 3.0201 L8BTD8 Parietaria judaica (Pellitory-of-the-Wall)
Par j 4.0101 B5QST3 Parietaria judaica (Pellitory-of-the-Wall)
Pas n 1.0101 B8PYF3 Paspalum notatum (Bahia grass)
Pen b 26.0101 Q49KL9 Penicillium brevicompactum
Pen c 13.0101 Q9URH1 Penicillium citrinum
Pen c 19.0101 Q92260 Penicillium citrinum
Pen c 22.0101 Q96X46 Penicillium citrinum
Pen c 24.0101 Q69BZ7 Penicillium citrinum
Pen c 3.0101 Q9Y8B8 Penicillium citrinum
Pen c 30.0101 Q2V6Q5 Penicillium citrinum
Pen ch 13.0101 Q9URR2 Penicillium chrysogenum
Pen ch 18.0101 Q9P8G3 Penicillium chrysogenum
Pen ch 20.0101 Q02352 Penicillium chrysogenum
Pen ch 31.0101 Q2TL59 Penicillium chrysogenum
Pen m 1.0101 A1KYZ2 Penaeus monodon (Black tiger shrimp)
Pen m 2.0101 Q8I9P7 Penaeus monodon (Black tiger shrimp)
Pen o 18.0101 Q9HF12 Penicillium oxalicum
Per a 1.0101 Q9TZR6 Periplaneta americana (American cockroach)
Per a 1.0102 O18535 Periplaneta americana (American cockroach)
Per a 1.0103 O18530 Periplaneta americana (American cockroach)
Per a 1.0104 O18528 Periplaneta americana (American cockroach)

Per a 1.0201 O18527 Periplaneta americana (American cockroach)
Per a 3.0101 Q25641 Periplaneta americana (American cockroach)
Per a 3.0201 Q94643 Periplaneta americana (American cockroach)
Per a 3.0202 Q25640 Periplaneta americana (American cockroach)
Per a 3.0203 Q25639 Periplaneta americana (American cockroach)
Per a 6.0101 Q1MOY3 Periplaneta americana (American cockroach)
Per a 7.0101 Q9UB83 Periplaneta americana (American cockroach)
Per a 7.0102 Q9UB83 Periplaneta americana (American cockroach)
Pers a 1.0101 P93680 Persea americana (Avocado)
Pha a 1.0101 Q41260 Phalaris aquatica (Canary grass)
Pha a 5.0101 P56164 Phalaris aquatica (Canary grass)
Pha v 3.0101 D3W146 Phaseolus vulgaris (Green bean, French bean)
Pha v 3.0201 D3W147 Phaseolus vulgaris (Green bean, French bean)
Phl p 1.0101 Q40967 Phleum pratense (Timothy)
Phl p 1.0102 P43213 Phleum pratense (Timothy)
Phl p 11.0101 Q8H6L7 Phleum pratense (Timothy)
Phl p 12.0101 P35079 Phleum pratense (Timothy)
Phl p 12.0102 O24650 Phleum pratense (Timothy)
Phl p 12.0103 O24282 Phleum pratense (Timothy)
Phl p 13.0101 Q9XG86 Phleum pratense (Timothy)
Phl p 2.0101 P43214 Phleum pratense (Timothy)
Phl p 4.0101 Q5ZQK5 Phleum pratense (Timothy)
Phl p 4.0201 Q5ZQK4 Phleum pratense (Timothy)
Phl p 5.0101 Q40960 Phleum pratense (Timothy)
Phl p 5.0102 Q40962 Phleum pratense (Timothy)
Phl p 5.0103 O81341 Phleum pratense (Timothy)
Phl p 5.0104 P93467 Phleum pratense (Timothy)
Phl p 5.0105 O65318 Phleum pratense (Timothy)
Phl p 5.0106 O65319 Phleum pratense (Timothy)
Phl p 5.0107 O65320 Phleum pratense (Timothy)
Phl p 5.0108 O65321 Phleum pratense (Timothy)
Phl p 5.0109 Q84UI2 Phleum pratense (Timothy)
Phl p 5.0201 Q40963 Phleum pratense (Timothy)
Phl p 5.0202 P93466 Phleum pratense (Timothy)
Phl p 5.0203 O81342 Phleum pratense (Timothy)
Phl p 5.0206 O81343 Phleum pratense (Timothy)
Phl p 5.0207 O81344 Phleum pratense (Timothy)
Phl p 6.0101 P43215 Phleum pratense (Timothy)
Phl p 6.0102 O65868 Phleum pratense (Timothy)
Phl p 7.0101 O82040 Phleum pratense (Timothy)
Pho d 2.0101 Q8L5D8 Phoenix dactylifera (Date palm)
Pis s 1.0101 Q702P1 Pisum sativum (Pea)
Pis s 1.0102 Q702P0 Pisum sativum (Pea)
Pis v 1.0101 B7P072 Pistacia vera (Pistachio)
Pis v 2.0101 B7P073 Pistacia vera (Pistachio)
Pis v 2.0201 B7P074 Pistacia vera (Pistachio)
Pis v 3.0101 B4X640 Pistacia vera (Pistachio)
Pis v 4.0101 B2BDZ8 Pistacia vera (Pistachio)
Pis v 5.0101 B7SLJ1 Pistacia vera (Pistachio)
Pla a 1.0101 Q8GT41 Platanus acerifolia (London plane tree)
Pla a 2.0101 Q6H9K0 Platanus acerifolia (London plane tree)
Pla l 1.0101 P82242 Plantago lanceolata (English plantain)
Pla l 1.0102 P82242 Plantago lanceolata (English plantain)
Pla l 1.0103 P82242 Plantago lanceolata (English plantain)
Pla or 1.0101 A9YUH4 Platanus orientalis (Oriental plane)
Pla or 2.0101 A9YUH5 Platanus orientalis (Oriental plane)
Pla or 3.0101 A9YUH6 Platanus orientalis (Oriental plane)
Plo i 1.0101 Q95PM9 Plodia interpunctella (Indianmeal moth)
Poa p 1.0101 Q9ZP03 Poa pratensis (Kentucky blue grass)
Poa p 5.0101 Q9FPR0 Poa pratensis (Kentucky blue grass)
Pol a 1.0101 Q9U6W0 Polistes annularis (Wasp)
Pol a 2.0101 Q9U6V9 Polistes annularis (Wasp)
Pol a 5.0101 Q05109 Polistes annularis (Wasp)
Pol d 1.0101 Q6Q252 Polistes dominulus (Mediterranean paper wasp)
Pol d 1.0102 Q6Q251 Polistes dominulus (Mediterranean paper wasp)
Pol d 1.0103 Q6Q250 Polistes dominulus (Mediterranean paper wasp)
Pol d 1.0104 Q6Q249 Polistes dominulus (Mediterranean paper wasp)
Pol d 4.0101 Q7Z269 Polistes dominulus (Mediterranean paper wasp)
Pol d 5.0101 Q68KJ8 Polistes dominulus (Mediterranean paper wasp)

Pol e 5.0101 Q68KJ9 Polistes exclamans (Wasp)
Pol f 5.0101 P35780 Polistes fuscatus (Wasp)
Pol g 1.0101 P83542 Polistes gallicus (Wasp)
Pol g 5.0101 P83377 Polistes gallicus (Wasp)
Pon l 4.0101 P05946 Pontastacus leptodactylus (Narrow-clawed crayfish)
Pru ar 1.0101 O50001 Prunus armeniaca (Apricot)
Pru ar 3.0101 P81651 Prunus armeniaca (Apricot)
Pru av 1.0101 O24248 Prunus avium (Sweet cherry)
Pru av 1.0201 Q6QHU3 Prunus avium (Sweet cherry)
Pru av 1.0202 Q6QHU2 Prunus avium (Sweet cherry)
Pru av 1.0203 Q6QHU1 Prunus avium (Sweet cherry)
Pru av 2.0101 P50694 Prunus avium (Sweet cherry)
Pru av 3.0101 Q9M5X8 Prunus avium (Sweet cherry)
Pru av 4.0101 Q9XF39 Prunus avium (Sweet cherry)
Pru d 3.0101 P82534 Prunus domestica (European plum)
Pru du 3.0101 C0L0I5 Prunus dulcis (Almond)
Pru du 4.0101 Q8GSL5 Prunus dulcis (Almond)
Pru du 4.0102 Q8GSL5 Prunus dulcis (Almond)
Pru du 5.0101 Q8H2B9 Prunus dulcis (Almond)
Pru p 1.0101 Q2I6V8 Prunus persica (Peach)
Pru p 3.0101 P81402 Prunus persica (Peach)
Pru p 4.0101 Q8GT40 Prunus persica (Peach)
Pru p 4.0201 Q8GT39 Prunus persica (Peach)
Pyr c 1.0101 O65200 Pyrus communis (Pear)
Pyr c 3.0101 Q9M5X6 Pyrus communis (Pear)
Pyr c 4.0101 Q9XF38 Pyrus communis (Pear)
Pyr c 5.0101 O81355 Pyrus communis (Pear)
Que a 1.0201 B6RQS1 Quercus alba (White oak)
Que a 1.0301 B6RQS2 Quercus alba (White oak)
Que a 1.0401 B6RQS3 Quercus alba (White oak)
Ran e 1.0101 Q8JIU2 Rana esculenta (edible frog)
Ran e 2.0101 Q8JIU1 Rana esculenta (edible frog)
Rat n 1.0101 P02761 Rattus norvegius (Rat)
Rho m 1.0101 Q870B9 Rhodotorula mucilaginosa (Yeast)
Rho m 2.0101 Q32ZM1 Rhodotorula mucilaginosa (Yeast)
Ric c 1.0101 P01089 Ricinus communis (Castor bean)
Rub i 1.0101 Q0Z8U9 Rubus idaeus (Red raspberry)
Rub i 3.0101 Q0Z8V0 Rubus idaeus (Red raspberry)
Sal k 1.0101 P83181 Salsola kali (Russian thistle)
Sal k 1.0201 I6LD58 Salsola kali (Russian thistle)
Sal k 1.0301 Q17ST3 Salsola kali (Russian thistle)
Sal k 1.0302 Q17ST4 Salsola kali (Russian thistle)
Sal k 2.0101 Q8L5K9 Salsola kali (Russian thistle)
Sal k 3.0101 C1KEU0 Salsola kali (Russian thistle)
Sal k 4.0101 C6JWH0 Salsola kali (Russian thistle)
Sal k 4.0201 E2D0Y9 Salsola kali (Russian thistle)
Sal k 5.0101 E2D0Z0 Salsola kali (Russian thistle)
Sal s 1.0101 Q91482 Salmo salar (Atlantic salmon)
Sar sa 1.0101 B3WFF7 Sardinops sagax (Pacific pilchard)
Seb m 1.0101 C6GKU4 Sebastes marinus (Ocean perch, redfish, snapper)
Seb m 1.0201 C6GKU5 Sebastes marinus (Ocean perch, redfish, snapper)
Sec c 38.0101 Q9S8H2 Secale cereale (Rye)
Sec c 20.0101 Q9S8B0 Secale cereale (Rye)
Sec c 20.0201 Q9S8A7 Secale cereale (Rye)
Ses i 1.0101 Q9AUD1 Sesamum indicum (Sesame)
Ses i 2.0101 Q9XHP1 Sesamum indicum (Sesame)
Ses i 3.0101 Q9AUD0 Sesamum indicum (Sesame)
Ses i 4.0101 Q9FUJ9 Sesamum indicum (Sesame)
Ses i 5.0101 Q9XHP2 Sesamum indicum (Sesame)
Ses i 6.0101 Q9XHP0 Sesamum indicum (Sesame)
Ses i 7.0101 Q9AUD2 Sesamum indicum (Sesame)
Sin a 1.0101 P15322 Sinapis alba (Yellow mustard)
Sin a 2.0101 Q2TLW0 Sinapis alba (Yellow mustard)
Sin a 3.0101 E6Y2L9 Sinapis alba (Yellow mustard)
Sin a 4.0101 E6Y2M0 Sinapis alba (Yellow mustard)
Sol g 4.0101 Q9NH75 Solenopsis geminata (Tropical fire ant)
Sol g 4.0201 Q9NH75 Solenopsis geminata (Tropical fire ant)
Sol i 1.0101 Q68KK0 Solenopsis invicta (Red imported fire ant)
Sol i 2.0101 P35775 Solenopsis invicta (Red imported fire ant)

Sol i 3.0101 P35778 Solenopsis invicta (Red imported fire ant)
Sol i 4.0101 P35777 Solenopsis invicta (Red imported fire ant)
Sol r 2.0101 P35776 Solenopsis richteri (Black fire ant)
Sol r 3.0101 P35779 Solenopsis richteri (Black fire ant)
Sola t 1.0101 P15476 Solanum tuberosum (Potato)
Sola t 2.0101 P16348 Solanum tuberosum (Potato)
Sola t 3.0101 O24383 Solanum tuberosum (Potato)
Sola t 3.0102 P20347 Solanum tuberosum (Potato)
Sola t 4.0101 P30941 Solanum tuberosum (Potato)
Syr v 3.0101 P58171 Syringa vulgaris (Lilac)
Tha p 1.0101 Q7M4K8 Thaumetopoea pityocampa (Pine processionary moth)
Thu a 1.0101 C6GKU3 Thunnus albacares (Yellowfin tuna)
Tri a 12.0101 P49232 Triticum aestivum (Wheat)
Tri a 12.0102 P49233 Triticum aestivum (Wheat)
Tri a 12.0103 P49234 Triticum aestivum (Wheat)
Tri a 14.0201 D2T2K2 Triticum aestivum (Wheat)
Tri a 18.0101 P10968 Triticum aestivum (Wheat)
Tri a 25.0101 Q9LDX4 Triticum aestivum (Wheat)
Tri a 26.0101 P10388 Triticum aestivum (Wheat)
Tri a 27.0101 Q7Y1Z2 Triticum aestivum (Wheat)
Tri a 28.0101 Q4W0V7 Triticum aestivum (Wheat)
Tri a 29.0101 C7C4X0 Triticum aestivum (Wheat)
Tri a 29.0201 D2TGC2 Triticum aestivum (Wheat)
Tri a 30.0101 P17314 Triticum aestivum (Wheat)
Tri r 2.0101 Q9UW97 Trichophyton rubrum
Tri r 4.0101 Q9UW98 Trichophyton rubrum
Tri t 4.0101 P80514 Trichophyton tonsurans
Tria p 1.0101 Q9U6R6 Triatoma protracta (California kissing bug)
Tyr p 10.0101 Q6IUP9 Tyrophagus putrescentiae (Storage mite)
Tyr p 13.0101 Q66RP5 Tyrophagus putrescentiae (Storage mite)
Tyr p 2.0101 O02380 Tyrophagus putrescentiae (Storage mite)
Tyr p 24.0101 D2DGW3 Tyrophagus putrescentiae (Storage mite)
Ves f 5.0101 P35783 Vespula flavopilosa (Yellow jacket)
Ves g 5.0101 P35784 Vespula germanica (Yellow jacket)
Ves m 1.0101 P51528 Vespula maculifrons (Yellow jacket)
Ves m 5.0101 P35760 Vespula maculifrons (Yellow jacket)
Ves p 5.0101 P35785 Vespula pensylvanica (Yellow jacket)
Ves s 5.0101 P35786 Vespula squamosa (Yellow jacket)
Ves v 1.0101 P49369 Vespula vulgaris (Yellow jacket)
Ves v 2.0101 P49370 Vespula vulgaris (Yellow jacket)
Ves v 2.0201 Q5D7H4 Vespula vulgaris (Yellow jacket)
Ves v 3.0101 B1A4F7 Vespula vulgaris (Yellow jacket)
Ves v 5.0101 Q05110 Vespula vulgaris (Yellow jacket)
Ves vi 5.0101 P35787 Vespula vidua (Wasp)
Vesp c 5.0101 P35781 Vespa crabro (European hornet)
Vesp c 5.0102 P35782 Vespa crabro (European hornet)
Vesp m 5.0101 P81657 Vespa mandarinia (Giant asian hornet)
Vig r 1.0101 Q2VU97 Vigna radiata (Mung bean)
Vit v 1.0101 P80274 Vitis vinifera (Grape)
Xip g 1.0101 B9W4C2 Xiphias gladius (Swordfish)
Zea m 1.0101 Q07154 Zea mays (Maize)
Zea m 12.0101 P35081 Zea mays (Maize)
Zea m 12.0102 P35082 Zea mays (Maize)
Zea m 12.0103 P35083 Zea mays (Maize)
Zea m 12.0104 O22655 Zea mays (Maize)
Zea m 12.0105 Q9FR39 Zea mays (Maize)
Zea m 14.0101 P19656 Zea mays (Maize)
Zea m 14.0102 P19656 Zea mays (Maize)
Zea m 25.0101 Q4W1F7 Zea mays (Maize)
Ziz m 1.0101 Q2VST0 Ziziphus mauritiana (Chinese-date)
Cur l 4.0101 B3V0K8 Curvularia lunata (Synonym: Cochliobolus lunatus)
Pru du 6.0101 E3SH28 Prunus dulcis (Almond)
Pru du 6.0201 E3SH29 Prunus dulcis (Almond)
Pru p 2.0101 B6CQT7 Prunus persica (Peach)
Pru p 2.0201 B6CQT5 Prunus persica (Peach)
Pru p 2.0301 B6CQT3 Prunus persica (Peach)
Cas s 9.0101 Q9ZS24 Castanea sativa (Chestnut)
Ani s 10.0101 D2K835 Anisakis simplex (Nematode)
Tha p 2.0101 P86360 Thaumetopoea pityocampa (Pine processionary moth)

Glo m 5.0101 Q9NBA6 Glossina morsitans (Savannah Tsetse Fly)
Bomb m 1.0101 Q2F5T5 Bombyx mori (Silk moth)
Fag e 2.0101 Q2PS07 Fagopyrum esculentum (Common buckwheat)
Len c 3.0101 A0AT29 Lens culinaris (Lentil)
Ole e 11.0101 D8VPP5 Olea europea (Olive)
Amb a 4.0101 D4IHC0 Ambrosia artemisiifolia (Short ragweed)
Pen m 4.0101 E7CGC4 Penaeus monodon (Black tiger shrimp)
Cla c 14.0101 G8Z407 Cladosporium cladosporioides
Pen ch 35.0101 G8Z408 Penicillium chrysogenum
Hev b 14.0101 E7BQV3 Hevea brasiliensis (Para rubber tree (latex))
Pen m 3.0101 E1A683 Penaeus monodon (Black tiger shrimp)
Pen m 6.0101 E7CGC5 Penaeus monodon (Black tiger shrimp)
Sola l 4.0101 O49881 Solamun lycopersicum (Lycopersicon esculentum) (Tomato)
Fag s 1.0101 B7TWE6 Fagus sylvatica (European beech)
Ost c 1.0101 E2GL17 Ostrya carpinifolia (European hophornbeam)
Lip b 1.0101 P86712 Liposcelis bostrichophila (Booklouse)
Tab y 2.0101 E0XKJ9 Tabanus yao (Horsefly)
Tab y 5.0101 E0XKJ8 Tabanus yao (Horsefly)
Ani s 11.0101 E9RFF3 Anisakis simplex (Nematode)
Ani s 12.0101 E9RFF6 Anisakis simplex (Nematode)
Gad m 1.0101 Q90YL0 Gadus morhua (Atlantic cod)
Gad m 1.0102 A5I873 Gadus morhua (Atlantic cod)
Gad m 1.0201 Q90YK9 Gadus morhua (Atlantic cod)
Gad m 1.0202 A5I874 Gadus morhua (Atlantic cod)
Can f 6.0101 H2B3G5 Canis familiaris (dog)
Plo i 2.0101 E1XUQ3 Plodia interpunctella (Indianmeal moth)
Tyr p 3.0101 C6ZDB5 Tyrophagus putrescentiae (Storage mite)
Pan b 1.0101 E5BBS3 Pandalus borealis (Northern shrimp)
Tab y 1.0101 F1JZ10 Tabanus yao (Horsefly)
Tri a 15.0101 D2TGC3 Triticum aestivum (Wheat)
Tri a 21.0101 D2T2K3 Triticum aestivum (Wheat)
Tri a 31.0101 Q9FS79 Triticum aestivum (Wheat)
Tri a 32.0101 Q6W8Q2 Triticum aestivum (Wheat)
Tri a 33.0101 Q9ST57 Triticum aestivum (Wheat)
Tri a 34.0101 C7C4X1 Triticum aestivum (Wheat)
Tri a 35.0101 D2TE72 Triticum aestivum (Wheat)
Asp v 13.0101 D5LGB3 Aspergillus versicolor
Sta c 3.0101 C7E9W0 Stachybotrys chartarum
Cof a 1.0101 D7REL9 Coffea arabica (Arabian coffe)
Fag t 2.0101 E9NX73 Fagopyrum tataricum (Tartarian buckwheat)
Api g 6.0101 P86809 Apium graveolens (Celery)
Man e 5.0101 M1E7Y0 Manihot esculenta (Cassava, manioc)
Onc m 1.0101 P86431 Oncorhynchus mykiss (Rainbow trout)
Onc m 1.0201 P86432 Oncorhynchus mykiss (Rainbow trout)
Api m 11.0101 B3GM11 Apis mellifera (Honey bee)
Api m 11.0201 Q4ZJX1 Apis mellifera (Honey bee)
Sal s 2.0101 B5DGQ7 Salmo salar (Atlantic salmon)
Tri a 37.0101 Q9T0P1 Triticum aestivum (Wheat)
Api m 12.0101 Q868N5 Apis mellifera (Honey bee)
Ves v 6.0101 G8IIT0 Vespula vulgaris (Yellow jacket)
Pen cr 26.0101 H2E5X2 Penicillium crustosum
Dau c 5.0101 H2DF86 Daucus carota (Carrot)
Fag e 3.0101 A5HIX6 Fagopyrum esculentum (Common buckwheat)
Vig r 2.0101 Q198W3 Vigna radiata (Mung bean)
Vig r 2.0201 B1NPN8 Vigna radiata (Mung bean)
Vig r 4.0101 Q43680 Vigna radiata (Mung bean)
Vig r 6.0101 Q9ZWP8 Vigna radiata (Mung bean)
Bra r 5.0101 P69197 Brassica rapa (Turnip)
Sch c 1.0101 D8Q9M3 Schizophyllum commune
Ore m 4.0101 K4PEK4 Oreochromis mossambicus (Mozambique tilapia)
Gad m 2.0101 B3A0L6 Gadus morhua (Atlantic cod)
Gad m 3.0101 P86980 Gadus morhua (Atlantic cod)
Sal s 3.0101 B5DGM7 Salmo salar (Atlantic salmon)
Thu a 2.0101 P86978 Thunnus albacares (Yellowfin tuna)
Thu a 3.0101 P86979 Thunnus albacares (Yellowfin tuna)
Bos d 9.0101 P02662 Bos domesticus (domestic cattle)
Bos d 10.0101 P02663 Bos domesticus (domestic cattle)
Bos d 11.0101 P02666 Bos domesticus (domestic cattle)
Bos d 12.0101 P02668 Bos domesticus (domestic cattle)

```
Pru p 7.0101 P86888 Prunus persica (Peach)
Bla g 3.0101 D0VNY7 Blattella germanica (German cockroach)
Gly m 7.0101 C6K8D1 Glycine max (Soybean)
Onc k 5.0101 D5MU14 Oncorhynchus (Chum salmon)
Cav p 4.0101 Q6WDN9 Cavia porcellus (guinea pig)
Ory c 3. Q9GK63 Oryctolagus cuniculus (rabbit)
Ory c 3. Q9GK67 Oryctolagus cuniculus (rabbit)
Por p 1.0101 M1H607 Portunus pelagicus (Blue swimmer crab)
Tri a 39.0101 J7QW61 Triticum aestivum (Wheat)
Der p 15.0101 Q4JK69 Dermatophagoides pteronyssinus (European house dust mite)
Der p 15.0102 Q4JK70 Dermatophagoides pteronyssinus (European house dust mite)
Der p 18.0101 Q4JK71 Dermatophagoides pteronyssinus (European house dust mite)
Cof a 2.0101 AGL34967 Coffea arabica (Arabian coffe)
Cof a 3.0101 AGL34968 Coffea arabica (Arabian coffe)
Lat c 1.0101 Q5IRB2 Lates calcarifer (Barramundi)
Lat c 1.0201 Q6ITU9 Lates calcarifer (Barramundi)
```

E.1 Omitted allergens from allergen.org

A few of the entries were omitted, due to wrong accession codes, unpublished sequences or other errors:

```
Pen c 13.0101 Q9URH1 Penicillium citrinum
Api g 6.0101 P86809 Apium graveolens (Celery)
Gad m 2.0101 B3A0L6 Gadus morhua (Atlantic cod)
Gad m 3.0101 P86980 Gadus morhua (Atlantic cod)
Thu a 2.0101 P86978 Thunnus albacares (Yellowfin tuna)
Thu a 3.0101 P86979 Thunnus albacares (Yellowfin tuna)
Cof a 2.0101 AGL34967 Coffea arabica (Arabian coffe)
Cof a 3.0101 AGL34968 Coffea arabica (Arabian coffe)
```

F Results from the EFSA scientific opinion recommended allergen analysis of Protease from WTY939-8-3 using allergenonline database

F.1 35% or larger identity over any 80 amino acid window

```
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.8% identity i 87 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.8% identity i 87 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.2% identity i 86 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.2% identity i 86 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.9% identity i 86 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 87 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.2% identity i 85 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.2% identity i 85 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.5% identity i 84 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.5% identity i 84 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.2% identity i 87 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.2% identity i 82 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.2% identity i 82 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 39.5% identity i 86 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 39.5% identity i 86 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 38.8% identity i 85 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 36.2% identity i 94 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 36.2% identity i 94 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 36.1% identity i 97 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 36.1% identity i 97 aa overlap.
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 35.4% identity i 96 aa overlap.
gi|511476|gb|AAA19973.1| 50.0% identity i 90 aa overlap.
gi|511476|gb|AAA19973.1| 50.0% identity i 86 aa overlap.
gi|511476|gb|AAA19973.1| 50.0% identity i 82 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 89 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 49.4% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 48.8% identity i 86 aa overlap.
gi|511476|gb|AAA19973.1| 48.8% identity i 86 aa overlap.
gi|511476|gb|AAA19973.1| 48.8% identity i 86 aa overlap.
gi|511476|gb|AAA19973.1| 48.8% identity i 84 aa overlap.
gi|511476|gb|AAA19973.1| 48.3% identity i 89 aa overlap.
gi|511476|gb|AAA19973.1| 48.2% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 48.2% identity i 83 aa overlap.
gi|511476|gb|AAA19973.1| 47.7% identity i 88 aa overlap.
gi|511476|gb|AAA19973.1| 47.2% identity i 89 aa overlap.
gi|511476|gb|AAA19973.1| 47.1% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 47.1% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 47.0% identity i 83 aa overlap.
gi|511476|gb|AAA19973.1| 47.0% identity i 83 aa overlap.
gi|511476|gb|AAA19973.1| 46.9% identity i 81 aa overlap.
gi|511476|gb|AAA19973.1| 46.9% identity i 81 aa overlap.
gi|511476|gb|AAA19973.1| 46.6% identity i 88 aa overlap.
gi|511476|gb|AAA19973.1| 46.4% identity i 84 aa overlap.
gi|511476|gb|AAA19973.1| 46.3% identity i 82 aa overlap.
gi|511476|gb|AAA19973.1| 46.0% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 45.8% identity i 83 aa overlap.
gi|511476|gb|AAA19973.1| 45.7% identity i 81 aa overlap.
gi|511476|gb|AAA19973.1| 45.3% identity i 86 aa overlap.
gi|511476|gb|AAA19973.1| 45.0% identity i 80 aa overlap.
gi|511476|gb|AAA19973.1| 44.7% identity i 85 aa overlap.
gi|511476|gb|AAA19973.1| 44.3% identity i 88 aa overlap.
gi|511476|gb|AAA19973.1| 43.7% identity i 87 aa overlap.
gi|511476|gb|AAA19973.1| 35.7% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 60.2% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 60.2% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 60.0% identity i 80 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.8% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.5% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.3% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.3% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.3% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.3% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.0% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 59.0% identity i 83 aa overlap.
```

```
gi|33667930|gb|AAQ24542.1| 58.8% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.8% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.8% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.8% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.6% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.3% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.3% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.3% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.1% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 58.1% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 57.8% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 57.8% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 57.5% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.5% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.5% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.1% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 56.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 55.8% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 55.3% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 55.3% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 54.7% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 54.7% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 54.7% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 54.7% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 53.5% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 52.9% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 52.4% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 51.8% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 51.2% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 50.6% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 49.4% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 49.4% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 45.2% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 45.2% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 44.4% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 44.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 44.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 44.0% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 43.9% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 43.9% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 43.4% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 43.2% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 43.2% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 40.5% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 40.2% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 39.8% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 39.5% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 39.1% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.8% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.6% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 38.4% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 37.9% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 37.8% identity i 82 aa overlap.
gi|33667930|gb|AAQ24542.1| 37.6% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 37.6% identity i 85 aa overlap.
gi|33667930|gb|AAQ24542.1| 37.0% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.8% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.1% identity i 83 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.0% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.0% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.0% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 36.0% identity i 86 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.8% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.8% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.8% identity i 81 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.7% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.7% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.7% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.7% identity i 84 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.6% identity i 87 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.2% identity i 88 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.2% identity i 88 aa overlap.
gi|33667930|gb|AAQ24542.1| 35.2% identity i 88 aa overlap.
gi|30909091|gb|AAP37412.1| 39.3% identity i 84 aa overlap.
gi|30909091|gb|AAP37412.1| 39.1% identity i 87 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.4% identity i 86 aa overlap.
gi|30909091|gb|AAP37412.1| 38.3% identity i 81 aa overlap.
gi|30909091|gb|AAP37412.1| 38.3% identity i 81 aa overlap.
gi|30909091|gb|AAP37412.1| 38.3% identity i 81 aa overlap.
```

```
gi|30909091|gb|AAP37412.1| 38.3% identity i 81 aa overlap.
gi|30909091|gb|AAP37412.1| 38.1% identity i 84 aa overlap.
gi|30909091|gb|AAP37412.1| 38.1% identity i 84 aa overlap.
gi|30909091|gb|AAP37412.1| 37.8% identity i 82 aa overlap.
gi|30909091|gb|AAP37412.1| 37.6% identity i 85 aa overlap.
gi|30909091|gb|AAP37412.1| 37.6% identity i 85 aa overlap.
gi|30909091|gb|AAP37412.1| 37.6% identity i 85 aa overlap.
gi|30909091|gb|AAP37412.1| 37.6% identity i 85 aa overlap.
gi|30909091|gb|AAP37412.1| 37.6% identity i 85 aa overlap.
gi|30909091|gb|AAP37412.1| 37.3% identity i 83 aa overlap.
gi|30909091|gb|AAP37412.1| 37.3% identity i 83 aa overlap.
gi|30909091|gb|AAP37412.1| 36.9% identity i 84 aa overlap.
gi|30909091|gb|AAP37412.1| 36.8% identity i 87 aa overlap.
gi|25989482|gb|AAM10779.1| 60.2% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 60.2% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 60.0% identity i 80 aa overlap.
gi|25989482|gb|AAM10779.1| 59.8% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 59.5% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 59.3% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 59.3% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 59.3% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 59.3% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 59.0% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 59.0% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 58.8% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 58.8% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 58.8% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 58.8% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 58.6% identity i 87 aa overlap.
gi|25989482|gb|AAM10779.1| 58.3% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 58.3% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 58.3% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 58.1% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 58.1% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 57.8% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 57.8% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 57.5% identity i 87 aa overlap.
gi|25989482|gb|AAM10779.1| 56.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 56.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 56.5% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 56.5% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 56.1% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 56.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 56.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 56.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 55.8% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 55.3% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 55.3% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 54.7% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 54.7% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 54.7% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 54.7% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 53.5% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 52.9% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 52.4% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 51.8% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 51.2% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 50.6% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 49.4% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 49.4% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 45.2% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 45.2% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 44.4% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 44.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 44.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 44.0% identity i 84 aa overlap.
gi|25989482|gb|AAM10779.1| 43.9% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 43.9% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 43.4% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 43.2% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 43.2% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 40.0% identity i 85 aa overlap.
gi|25989482|gb|AAM10779.1| 39.8% identity i 88 aa overlap.
gi|25989482|gb|AAM10779.1| 39.8% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 38.6% identity i 88 aa overlap.
gi|25989482|gb|AAM10779.1| 38.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 38.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 38.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 38.6% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 37.8% identity i 82 aa overlap.
gi|25989482|gb|AAM10779.1| 37.5% identity i 88 aa overlap.
gi|25989482|gb|AAM10779.1| 37.2% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 37.0% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 36.8% identity i 87 aa overlap.
gi|25989482|gb|AAM10779.1| 36.4% identity i 88 aa overlap.
gi|25989482|gb|AAM10779.1| 36.1% identity i 83 aa overlap.
gi|25989482|gb|AAM10779.1| 36.0% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 36.0% identity i 86 aa overlap.
gi|25989482|gb|AAM10779.1| 35.8% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 35.8% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 35.8% identity i 81 aa overlap.
gi|25989482|gb|AAM10779.1| 35.2% identity i 88 aa overlap.
```

```
gi|2507248|sp|P49275.2|DERF3_DERFA 48.9% identity i 90 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.8% identity i 82 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.3% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.2% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.2% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 48.2% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.7% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.7% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.7% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.6% identity i 84 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.2% identity i 89 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.2% identity i 89 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.1% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 47.0% identity i 83 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 46.6% identity i 88 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 46.1% identity i 89 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 46.0% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.9% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.9% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.8% identity i 83 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.5% identity i 88 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.5% identity i 88 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.5% identity i 88 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.3% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.2% identity i 84 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.2% identity i 84 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.2% identity i 84 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 45.1% identity i 82 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 44.8% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 44.6% identity i 83 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 44.6% identity i 83 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 44.4% identity i 81 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 44.2% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 43.9% identity i 82 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 43.8% identity i 80 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 43.5% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.9% identity i 84 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.8% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.1% identity i 83 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.0% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.0% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.0% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 36.0% identity i 86 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 35.6% identity i 87 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 35.3% identity i 85 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 35.2% identity i 88 aa overlap.
gi|2507248|sp|P49275.2|DERF3_DERFA 35.2% identity i 88 aa overlap.
gi|218203828|gb|ACK76297.1| 42.7% identity i 82 aa overlap.
gi|218203828|gb|ACK76297.1| 42.7% identity i 82 aa overlap.
gi|218203828|gb|ACK76297.1| 42.2% identity i 83 aa overlap.
gi|218203828|gb|ACK76297.1| 42.2% identity i 83 aa overlap.
gi|218203828|gb|ACK76297.1| 42.2% identity i 83 aa overlap.
gi|218203828|gb|ACK76297.1| 42.0% identity i 81 aa overlap.
gi|218203828|gb|ACK76297.1| 41.7% identity i 84 aa overlap.
gi|218203828|gb|ACK76297.1| 41.5% identity i 82 aa overlap.
gi|218203828|gb|ACK76297.1| 41.2% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 41.0% identity i 83 aa overlap.
gi|218203828|gb|ACK76297.1| 40.7% identity i 81 aa overlap.
gi|218203828|gb|ACK76297.1| 40.7% identity i 81 aa overlap.
gi|218203828|gb|ACK76297.1| 40.2% identity i 82 aa overlap.
gi|218203828|gb|ACK76297.1| 40.0% identity i 85 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 37.5% identity i 80 aa overlap.
gi|218203828|gb|ACK76297.1| 36.4% identity i 88 aa overlap.
gi|218203828|gb|ACK76297.1| 36.4% identity i 88 aa overlap.
gi|218203828|gb|ACK76297.1| 36.2% identity i 94 aa overlap.
gi|218203828|gb|ACK76297.1| 36.2% identity i 94 aa overlap.
gi|218203828|gb|ACK76297.1| 35.2% identity i 91 aa overlap.
gi|218203828|gb|ACK76297.1| 35.2% identity i 91 aa overlap.
gi|218203828|gb|ACK76297.1| 35.1% identity i 94 aa overlap.
gi|218203828|gb|ACK76297.1| 35.1% identity i 94 aa overlap.
gi|218203828|gb|ACK76297.1| 35.1% identity i 94 aa overlap.
gi|218203826|gb|ACK76296.1| 42.7% identity i 82 aa overlap.
gi|218203826|gb|ACK76296.1| 42.7% identity i 82 aa overlap.
gi|218203826|gb|ACK76296.1| 42.2% identity i 83 aa overlap.
gi|218203826|gb|ACK76296.1| 42.2% identity i 83 aa overlap.
gi|218203826|gb|ACK76296.1| 42.2% identity i 83 aa overlap.
```

```
gi|218203826|gb|ACK76296.1| 42.0% identity i 81 aa overlap.
gi|218203826|gb|ACK76296.1| 41.7% identity i 84 aa overlap.
gi|218203826|gb|ACK76296.1| 41.5% identity i 82 aa overlap.
gi|218203826|gb|ACK76296.1| 41.2% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 41.0% identity i 83 aa overlap.
gi|218203826|gb|ACK76296.1| 40.7% identity i 81 aa overlap.
gi|218203826|gb|ACK76296.1| 40.7% identity i 81 aa overlap.
gi|218203826|gb|ACK76296.1| 40.2% identity i 82 aa overlap.
gi|218203826|gb|ACK76296.1| 40.0% identity i 85 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 37.5% identity i 80 aa overlap.
gi|218203826|gb|ACK76296.1| 36.4% identity i 88 aa overlap.
gi|218203826|gb|ACK76296.1| 36.4% identity i 88 aa overlap.
gi|218203826|gb|ACK76296.1| 36.2% identity i 94 aa overlap.
gi|218203826|gb|ACK76296.1| 36.2% identity i 94 aa overlap.
gi|218203826|gb|ACK76296.1| 35.2% identity i 91 aa overlap.
gi|218203826|gb|ACK76296.1| 35.2% identity i 91 aa overlap.
gi|218203826|gb|ACK76296.1| 35.1% identity i 94 aa overlap.
gi|218203826|gb|ACK76296.1| 35.1% identity i 94 aa overlap.
gi|218203826|gb|ACK76296.1| 35.1% identity i 94 aa overlap.
gi|218203818|gb|ACK76292.1| 48.9% identity i 90 aa overlap.
gi|218203818|gb|ACK76292.1| 48.8% identity i 82 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.3% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 48.2% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 48.2% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 48.2% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 47.7% identity i 86 aa overlap.
gi|218203818|gb|ACK76292.1| 47.7% identity i 86 aa overlap.
gi|218203818|gb|ACK76292.1| 47.7% identity i 86 aa overlap.
gi|218203818|gb|ACK76292.1| 47.6% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 47.2% identity i 89 aa overlap.
gi|218203818|gb|ACK76292.1| 47.2% identity i 89 aa overlap.
gi|218203818|gb|ACK76292.1| 47.1% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 47.0% identity i 83 aa overlap.
gi|218203818|gb|ACK76292.1| 46.6% identity i 88 aa overlap.
gi|218203818|gb|ACK76292.1| 46.1% identity i 89 aa overlap.
gi|218203818|gb|ACK76292.1| 46.0% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 45.7% identity i 81 aa overlap.
gi|218203818|gb|ACK76292.1| 45.5% identity i 88 aa overlap.
gi|218203818|gb|ACK76292.1| 45.5% identity i 88 aa overlap.
gi|218203818|gb|ACK76292.1| 45.5% identity i 88 aa overlap.
gi|218203818|gb|ACK76292.1| 45.2% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 45.2% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 45.2% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 44.8% identity i 87 aa overlap.
gi|218203818|gb|ACK76292.1| 44.7% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 44.7% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 44.6% identity i 83 aa overlap.
gi|218203818|gb|ACK76292.1| 44.2% identity i 86 aa overlap.
gi|218203818|gb|ACK76292.1| 44.0% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 43.9% identity i 82 aa overlap.
gi|218203818|gb|ACK76292.1| 43.9% identity i 82 aa overlap.
gi|218203818|gb|ACK76292.1| 43.5% identity i 85 aa overlap.
gi|218203818|gb|ACK76292.1| 43.4% identity i 83 aa overlap.
gi|218203818|gb|ACK76292.1| 43.2% identity i 81 aa overlap.
gi|218203818|gb|ACK76292.1| 42.5% identity i 80 aa overlap.
gi|218203818|gb|ACK76292.1| 36.9% identity i 84 aa overlap.
gi|218203818|gb|ACK76292.1| 36.1% identity i 83 aa overlap.
gi|218203818|gb|ACK76292.1| 35.4% identity i 82 aa overlap.
gi|218203816|gb|ACK76291.1| 48.9% identity i 90 aa overlap.
gi|218203816|gb|ACK76291.1| 48.8% identity i 82 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.3% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 48.2% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 48.2% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 48.2% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 47.7% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 47.7% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 47.7% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 47.6% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 47.2% identity i 89 aa overlap.
gi|218203816|gb|ACK76291.1| 47.2% identity i 89 aa overlap.
```

```
gi|218203816|gb|ACK76291.1| 47.1% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 47.0% identity i 83 aa overlap.
gi|218203816|gb|ACK76291.1| 46.6% identity i 88 aa overlap.
gi|218203816|gb|ACK76291.1| 46.1% identity i 89 aa overlap.
gi|218203816|gb|ACK76291.1| 46.0% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 45.7% identity i 81 aa overlap.
gi|218203816|gb|ACK76291.1| 45.5% identity i 88 aa overlap.
gi|218203816|gb|ACK76291.1| 45.5% identity i 88 aa overlap.
gi|218203816|gb|ACK76291.1| 45.5% identity i 88 aa overlap.
gi|218203816|gb|ACK76291.1| 45.2% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 45.2% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 45.2% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 44.8% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 44.7% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 44.7% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 44.6% identity i 83 aa overlap.
gi|218203816|gb|ACK76291.1| 44.2% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 44.0% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 43.9% identity i 82 aa overlap.
gi|218203816|gb|ACK76291.1| 43.9% identity i 82 aa overlap.
gi|218203816|gb|ACK76291.1| 43.5% identity i 85 aa overlap.
gi|218203816|gb|ACK76291.1| 43.4% identity i 83 aa overlap.
gi|218203816|gb|ACK76291.1| 43.2% identity i 81 aa overlap.
gi|218203816|gb|ACK76291.1| 42.5% identity i 80 aa overlap.
gi|218203816|gb|ACK76291.1| 36.9% identity i 84 aa overlap.
gi|218203816|gb|ACK76291.1| 36.8% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 36.0% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 36.0% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 36.0% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 36.0% identity i 86 aa overlap.
gi|218203816|gb|ACK76291.1| 35.6% identity i 87 aa overlap.
gi|218203816|gb|ACK76291.1| 35.3% identity i 85 aa overlap.
gi|167540622|gb|ABZ81991.1| 51.9% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 51.9% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.6% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.6% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.6% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.6% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.0% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.0% identity i 84 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.0% identity i 84 aa overlap.
gi|167540622|gb|ABZ81991.1| 50.0% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.8% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.2% identity i 85 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.2% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.2% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.2% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.1% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 48.1% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.7% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.7% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.6% identity i 84 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.6% identity i 84 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.6% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.5% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.5% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 47.5% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 46.5% identity i 86 aa overlap.
gi|167540622|gb|ABZ81991.1| 45.2% identity i 84 aa overlap.
gi|167540622|gb|ABZ81991.1| 44.7% identity i 85 aa overlap.
gi|167540622|gb|ABZ81991.1| 44.7% identity i 85 aa overlap.
gi|167540622|gb|ABZ81991.1| 38.8% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 38.6% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 38.3% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 38.3% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.8% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.5% identity i 80 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.3% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.3% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.3% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.3% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.3% identity i 83 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.0% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 37.0% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 36.6% identity i 82 aa overlap.
gi|167540622|gb|ABZ81991.1| 35.8% identity i 81 aa overlap.
gi|167540622|gb|ABZ81991.1| 35.0% identity i 80 aa overlap.
gi|163638970|gb|ABY28115.1| 48.9% identity i 90 aa overlap.
gi|163638970|gb|ABY28115.1| 48.8% identity i 82 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
```

gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.3% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 48.2% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 48.2% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 48.2% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 47.7% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 47.7% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 47.7% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 47.6% identity i 84 aa overlap.
gi|163638970|gb|ABY28115.1| 47.2% identity i 89 aa overlap.
gi|163638970|gb|ABY28115.1| 47.2% identity i 89 aa overlap.
gi|163638970|gb|ABY28115.1| 47.1% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 47.0% identity i 83 aa overlap.
gi|163638970|gb|ABY28115.1| 46.6% identity i 88 aa overlap.
gi|163638970|gb|ABY28115.1| 46.1% identity i 89 aa overlap.
gi|163638970|gb|ABY28115.1| 46.0% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 45.9% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 45.9% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 45.8% identity i 83 aa overlap.
gi|163638970|gb|ABY28115.1| 45.5% identity i 88 aa overlap.
gi|163638970|gb|ABY28115.1| 45.5% identity i 88 aa overlap.
gi|163638970|gb|ABY28115.1| 45.5% identity i 88 aa overlap.
gi|163638970|gb|ABY28115.1| 45.3% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 45.2% identity i 84 aa overlap.
gi|163638970|gb|ABY28115.1| 45.2% identity i 84 aa overlap.
gi|163638970|gb|ABY28115.1| 45.2% identity i 84 aa overlap.
gi|163638970|gb|ABY28115.1| 45.1% identity i 82 aa overlap.
gi|163638970|gb|ABY28115.1| 44.8% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 44.6% identity i 83 aa overlap.
gi|163638970|gb|ABY28115.1| 44.6% identity i 83 aa overlap.
gi|163638970|gb|ABY28115.1| 44.4% identity i 81 aa overlap.
gi|163638970|gb|ABY28115.1| 44.2% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 43.9% identity i 82 aa overlap.
gi|163638970|gb|ABY28115.1| 43.8% identity i 80 aa overlap.
gi|163638970|gb|ABY28115.1| 43.5% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 36.9% identity i 84 aa overlap.
gi|163638970|gb|ABY28115.1| 36.8% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 36.5% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 36.0% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 36.0% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 36.0% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 36.0% identity i 86 aa overlap.
gi|163638970|gb|ABY28115.1| 35.6% identity i 90 aa overlap.
gi|163638970|gb|ABY28115.1| 35.6% identity i 90 aa overlap.
gi|163638970|gb|ABY28115.1| 35.6% identity i 87 aa overlap.
gi|163638970|gb|ABY28115.1| 35.4% identity i 82 aa overlap.
gi|163638970|gb|ABY28115.1| 35.4% identity i 82 aa overlap.
gi|163638970|gb|ABY28115.1| 35.3% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 35.3% identity i 85 aa overlap.
gi|163638970|gb|ABY28115.1| 35.3% identity i 85 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.7% identity i 82 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.7% identity i 82 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.2% identity i 83 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.2% identity i 83 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.2% identity i 83 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 42.0% identity i 81 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 41.7% identity i 84 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 41.5% identity i 82 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 41.2% identity i 80 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 41.0% identity i 83 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 40.7% identity i 81 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 40.7% identity i 81 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 40.2% identity i 82 aa overlap.
gi|14424450|sp|P49276.2|DERF6_DERFA 40.0% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 48.9% identity i 90 aa overlap.
gi|1314736|gb|AAA99805.1| 48.8% identity i 82 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.3% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 48.2% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 48.2% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 48.2% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 47.7% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 47.7% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 47.7% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 47.6% identity i 84 aa overlap.
gi|1314736|gb|AAA99805.1| 47.2% identity i 89 aa overlap.
gi|1314736|gb|AAA99805.1| 47.2% identity i 89 aa overlap.
gi|1314736|gb|AAA99805.1| 47.1% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 47.0% identity i 83 aa overlap.
gi|1314736|gb|AAA99805.1| 46.6% identity i 88 aa overlap.
gi|1314736|gb|AAA99805.1| 46.1% identity i 89 aa overlap.
gi|1314736|gb|AAA99805.1| 46.0% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 45.7% identity i 81 aa overlap.
gi|1314736|gb|AAA99805.1| 45.5% identity i 88 aa overlap.
gi|1314736|gb|AAA99805.1| 45.5% identity i 88 aa overlap.
gi|1314736|gb|AAA99805.1| 45.5% identity i 88 aa overlap.
gi|1314736|gb|AAA99805.1| 45.2% identity i 84 aa overlap.

```
gi|1314736|gb|AAA99805.1| 45.2% identity i 84 aa overlap.
gi|1314736|gb|AAA99805.1| 45.2% identity i 84 aa overlap.
gi|1314736|gb|AAA99805.1| 44.8% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 44.7% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 44.7% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 44.6% identity i 83 aa overlap.
gi|1314736|gb|AAA99805.1| 44.2% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 44.0% identity i 84 aa overlap.
gi|1314736|gb|AAA99805.1| 43.9% identity i 82 aa overlap.
gi|1314736|gb|AAA99805.1| 43.9% identity i 82 aa overlap.
gi|1314736|gb|AAA99805.1| 43.5% identity i 85 aa overlap.
gi|1314736|gb|AAA99805.1| 43.4% identity i 83 aa overlap.
gi|1314736|gb|AAA99805.1| 43.2% identity i 81 aa overlap.
gi|1314736|gb|AAA99805.1| 42.5% identity i 80 aa overlap.
gi|1314736|gb|AAA99805.1| 36.9% identity i 84 aa overlap.
gi|1314736|gb|AAA99805.1| 36.8% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 36.0% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 36.0% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 36.0% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 36.0% identity i 86 aa overlap.
gi|1314736|gb|AAA99805.1| 35.6% identity i 87 aa overlap.
gi|1314736|gb|AAA99805.1| 35.3% identity i 85 aa overlap.
```

(blank=No matches found) Count of significant hits described in text based on identity > 35%.

F.2 35% or larger identity over any 80 amino acid window (with scaling)

```
gi|33667930|gb|AAQ24542.1| 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 51.9% identity i 79 aa overlap, scaled to 51.3% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 48.7% identity i 78 aa overlap, scaled to 47.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 48.7% identity i 78 aa overlap, scaled to 47.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 52.1% identity i 71 aa overlap, scaled to 46.3% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 52.1% identity i 71 aa overlap, scaled to 46.3% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 47.4% identity i 78 aa overlap, scaled to 46.3% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 48.7% identity i 76 aa overlap, scaled to 46.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 46.8% identity i 79 aa overlap, scaled to 46.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 46.8% identity i 79 aa overlap, scaled to 46.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 46.2% identity i 78 aa overlap, scaled to 45.0% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 45.5% identity i 77 aa overlap, scaled to 43.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 43.6% identity i 78 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
```

```
gi|218203828|gb|ACK76297.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 41.8% identity i 79 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 41.8% identity i 79 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 41.8% identity i 79 aa overlap, scaled to 41.2% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 41.6% identity i 77 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 41.6% identity i 77 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 41.9% identity i 74 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|30909091|gb|AAP37412.1| 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|30909091|gb|AAP37412.1| 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|30909091|gb|AAP37412.1| 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|30909091|gb|AAP37412.1| 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 41.9% identity i 74 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
```

```
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 41.3% identity i 75 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 40.0% identity i 75 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 40.0% identity i 75 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.5% identity i 78 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 42.0% identity i 69 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|33667930|gb|AAQ24542.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|25989482|gb|AAM10779.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 38.2% identity i 76 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 38.7% identity i 75 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 38.7% identity i 75 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.2% identity i 76 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 38.2% identity i 76 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 38.7% identity i 75 aa overlap, scaled to 36.3% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 42.6% identity i 68 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 39.2% identity i 74 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
```

```
gi|163638970|gb|ABY28115.1| 39.2% identity i 74 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|163638970|gb|ABY28115.1| 37.2% identity i 78 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 37.2% identity i 78 aa overlap, scaled to 36.2% identity i 80 aa overlap
gi|75009997|sp|Q7M4I3.1|SP4_MEGPE 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|511476|gb|AAA19973.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|2507248|sp|P49275.2|DERF3_DERFA 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203828|gb|ACK76297.1| 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203826|gb|ACK76296.1| 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203818|gb|ACK76292.1| 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|218203816|gb|ACK76291.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|167540622|gb|ABZ81991.1| 43.1% identity i 65 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|14424450|sp|P49276.2|DERF6_DERFA 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
gi|1314736|gb|AAA99805.1| 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
```

(blank=No matches found) Count of significant hits described in text based on identity > 35%.

F.3 Identities calculated from Needleman-Wuncsh alignment

Matches ≥ 10% are shown

```
gi_1314736_gb_AAA99805.1__Der_f_3_mite_allergen,_partial_[Dermatophagoides_farin 92/236     =  39.0%
gi_33667930_gb_AAQ24542.1__Blo_t_3_allergen_[Blomia_tropicalis]                  102/267    =  38.2%
gi_25989482_gb_AAM10779.1__trypsin_[Blomia_tropicalis]                           102/268    =  38.1%
gi_2507248_sp_P49275.2_DERF3_DERFA_RecName__Full=Mite_allergen_Der_f_3__AltName_ 93/263     =  35.4%
gi_163638970_gb_ABY28115.1__Der_f_3_allergen_precursor_[Dermatophagoides_farinae 93/263     =  35.4%
gi_218203816_gb_ACK76291.1__Der_f_3_allergen_[Dermatophagoides_farinae]          92/263     =  35.0%
gi_75009997_sp_Q7M4I3.1_SP4_MEGPE_RecName__Full=Venom_protease__AltName__Allerge 87/250     =  34.8%
gi_218203818_gb_ACK76292.1__Der_f_3_allergen_[Dermatophagoides_farinae]          91/263     =  34.6%
gi_511476_gb_AAA19973.1__Der_p_3_allergen_[Dermatophagoides_pteronyssinus]       91/265     =  34.3%
gi_167540622_gb_ABZ81991.1__Tyr_p_3_[Tyrophagus_putrescentiae]                   88/287     =  30.7%
gi_218203828_gb_ACK76297.1__Der_f_6_allergen_[Dermatophagoides_farinae]          83/290     =  28.6%
gi_218203826_gb_ACK76296.1__Der_f_6_allergen_[Dermatophagoides_farinae]          83/290     =  28.6%
gi_14424450_sp_P49276.2_DERF6_DERFA_RecName__Full=Mite_allergen_Der_f_6__AltName 81/290     =  27.9%
gi_30909091_gb_AAP37412.1__venom_serine_protease_precursor_[Polistes_dominulus]  74/288     =  25.7%
gi_30316292_sp_Q9FSG7.1_TP1A_MALDO_RecName__Full=Thaumatin-like_protein_1a__AltN 58/274     =  21.2%
gi_94471624_gb_ABF21078.1__icarapin_variant_2_precursor_[Apis_mellifera]         50/241     =  20.7%
gi_60418848_gb_AAX19851.1__thaumatin-like_protein_precursor_[Malus_domestica]    55/273     =  20.1%
gi_60418842_gb_AAX19848.1__thaumatin-like_protein_precursor_[Malus_domestica]    55/273     =  20.1%
gi_1335877_gb_AAB01092.1__pathogenesis-related_protein,_partial_[Daucus_carota]  47/238     =  19.7%
gi_289742483_gb_ADD19989.1__salivary_antigen_5_precursor_variant_[Glossina_morsi 50/260     =  19.2%
gi_11124572_emb_CAC14917.1__triosephosphat-isomerase_[Triticum_aestivum]         55/293     =  18.8%
gi_267048_sp_P29600.1_SUBS_BACLE_RecName__Full=Subtilisin_Savinase__AltName__Ful 57/308     =  18.5%
gi_134194_sp_P26987.1_SAM22_SOYBN_RecName__Full=Stress-induced_protein_SAM22__Al 43/235     =  18.3%
```

gi_1663522_dbj_BAA13604.1__cr16_[Daucus_carota]	43/238	=	18.1%
gi_338930680_emb_CBM42664.1__group_13_grass_pollen_allergen_[Paspalum_notatum]	45/250	=	18.0%
gi_2154732_emb_CAB03715.1__major_allergen_[Daucus_carota]	44/245	=	18.0%
gi_94471622_gb_ABF21077.1__icarapin_variant_1_precursor_[Apis_mellifera]	51/287	=	17.8%
gi_3005839_emb_CAA04959.1__rAsp_f_4_[Aspergillus_fumigatus]	55/311	=	17.7%
gi_51093377_gb_AAT95010.1__allergen_Pol_d_5_precursor_[Polistes_dominulus]	46/265	=	17.4%
gi_5326864_gb_AAD42074.1_AF144753_1_peroxisomal_membrane_protein_[Penicillium_ci	43/250	=	17.2%
gi_8928058_sp_O04298.1_DAU1_DAUCA_RecName__Full=Major_allergen_Dau_c_1__AltName_	42/245	=	17.1%
gi_510515_emb_CAA56343.1__Kunitz_trypsin_inhibitor_[Glycine_max]	49/287	=	17.1%
gi_332205751_emb_CBG76811.1__pollen_allergen_Sec_c_5_[Secale_cereale]	57/334	=	17.1%
gi_121244_sp_P12548.1_GLB73_CHITH_RecName__Full=Globin_CTT-VIIB-3__Flags__Precur	43/252	=	17.1%
gi_83300369_sp_O60024.2_ALL4_ASPFU_RecName__Full=Allergen_Asp_f_4__AltName__Alle	58/341	=	17.0%
gi_66847146_gb_EAL87477.1__allergen_Asp_F4_[Aspergillus_fumigatus_Af293]	58/341	=	17.0%
gi_4138171_emb_CAA09883.1__allergen_[Malassezia_sympodialis]	41/241	=	17.0%
gi_218059715_emb_CAT99611.1__thaumatin-like_protein_[Malus_domestica]	38/224	=	17.0%
gi_85701136_sp_P84527.1_KIWEL_ACTDE_RecName__Full=Kiwellin__AltName__Allergen=Ac	43/258	=	16.7%
gi_66845476_gb_EAL85811.1__allergen_Asp_F3_[Aspergillus_fumigatus_Af293]	40/240	=	16.7%
gi_291197394_emb_CBK52317.1__ragweed_homologue_of_Art_v_1_precursor_[Ambrosia_ar	41/245	=	16.7%
gi_2769700_gb_AAB95638.1__peroxisomal-like_protein_[Aspergillus_fumigatus]	40/240	=	16.7%
gi_238477329_gb_ACR43476.1__triosephosphate_isomerase_[Crangon_crangon]	50/299	=	16.7%
gi_56405054_sp_P84298.1_GLB75_CHITH_RecName__Full=Globin_CTT-VIIB-5/CTT-VIIB-9__	42/258	=	16.3%
gi_285005079_emb_CBJ24286.1__ragweed_homologue_of_Art_v_1_precursor_[Ambrosia_ar	40/245	=	16.3%
gi_121248_sp_P12549.1_GLB76_CHITH_RecName__Full=Globin_CTT-VIIB-6__Flags__Precur	42/258	=	16.3%
gi_7435005_pir__A59055_phospholipase_A2_(EC_3.1.1.4),_venom_-_Indian_honeybee	38/238	=	16.0%
gi_121249_sp_P12550.1_GLB77_CHITH_RecName__Full=Globin_CTT-VIIB-7__Flags__Precur	39/243	=	16.0%
gi_89892721_gb_ABD79094.1__Zea_m_1_allergen_[Zea_mays]	48/301	=	15.9%
gi_348137_gb_AAA16792.1__superoxide_dismutase_(manganese)_[Hevea_brasiliensis]	45/283	=	15.9%
gi_115502168_sp_P0C1Y5.1_EXB11_MAIZE_RecName__Full=Expansin-B11__AltName__Full=B	49/309	=	15.9%
gi_105969545_gb_ABF81662.1__EXPB10_[Zea_mays]	49/309	=	15.9%
gi_18772_emb_CAA45778.1__trypsin_inhibitor_subtype_B_[Glycine_max]	44/279	=	15.8%
gi_1321731_emb_CAA96548.1__major_allergen_Cor_a_1_[Corylus_avellana]	39/247	=	15.8%
gi_29170509_gb_AAO65960.1__oleosin_[Corylus_avellana]	38/242	=	15.7%
gi_291621332_dbj_BAI94503.1__pollen_allergen_CJP-8_[Cryptomeria_japonica]	38/242	=	15.7%
gi_256429_gb_AAB23464.1__Kunitz_trypsin_inhibitor_[Glycine_max]	43/275	=	15.6%
gi_18770_emb_CAA45777.1__trypsin_inhibitor_subtype_A_[Glycine_max]	43/276	=	15.6%
gi_160962591_gb_ABX54866.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]	38/243	=	15.6%
gi_1321716_emb_CAA96539.1__major_allergen_Bet_v_1_[Betula_pendula]	39/250	=	15.6%
gi_160347122_gb_ABX26139.1__allergen_Ole_e_5_[Olea_europaea]	36/232	=	15.5%
gi_5777414_emb_CAB53458.1__MnSOD_[Hevea_brasiliensis]	44/286	=	15.4%
gi_4590396_gb_AAD26562.1_AF124839_1_isoallergen_bet_v_1_b3_[Betula_pendula]	39/254	=	15.4%
gi_4376220_emb_CAA04827.1__pollen_allergen,_Betv1_[Betula_pendula]	39/253	=	15.4%
gi_160962611_gb_ABX54876.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]	38/246	=	15.4%
gi_160347112_gb_ABX26134.1__allergen_Ole_e_5_[Olea_europaea]	37/240	=	15.4%
gi_24418862_sp_P00630.3_PA2_APIME_RecName__Full=Phospholipase_A2__Short=bvPLA2__	40/262	=	15.3%
gi_23894240_emb_CAD23613.1__tri_m_2_allergen_[Arthroderma_benhamiae]	51/336	=	15.2%
gi_160962543_gb_ABX54842.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]	37/243	=	15.2%
gi_160347124_gb_ABX26140.1__allergen_Ole_e_5_[Olea_europaea]	37/243	=	15.2%
gi_160347106_gb_ABX26131.1__allergen_Ole_e_5_[Olea_europaea]	37/243	=	15.2%
gi_1359600_emb_CAA64868.1__chitinase_Ib_[Castanea_sativa]	55/361	=	15.2%
gi_1144346_gb_AAB38064.1__thaumatin-like_protein_precursor_[Prunus_avium]	47/309	=	15.2%
gi_323575363_dbj_BAJ78221.1__Ani_s_11-like_protein_precursor_[Anisakis_simplex]	35/234	=	15.0%
gi_160962583_gb_ABX54862.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]	36/240	=	15.0%
gi_160347108_gb_ABX26132.1__allergen_Ole_e_5_[Olea_europaea]	36/240	=	15.0%
gi_4376221_emb_CAA04828.1__pollen_allergen,_Betv1_[Betula_pendula]	36/242	=	14.9%
gi_4376219_emb_CAA04826.1__pollen_allergen,_Betv1_[Betula_pendula]	36/242	=	14.9%
gi_209484145_gb_ACI47547.1__nonspecific_lipid_transfer_protein_[Juglans_regia]	35/235	=	14.9%
gi_1588669_prf__2209273A_Zm13	37/248	=	14.9%
gi_1225905_dbj_BAA05540.1__prepro_AprM_[Bacillus_sp.]	62/417	=	14.9%

```
gi_10862818_emb_CAC13961.1__IgE-binding_protein_MnSOD_[Hevea_brasiliensis]       41/276     =  14.9%
gi_730048_sp_P38949.2_MPAC1_CARBE_RecName__Full=Major_pollen_allergen_Car_b_1_is 36/244     =  14.8%
gi_4587985_gb_AAD25927.1_AF084828_1_major_allergenic_protein_Mal_f4_[Malassezia_ 55/371     =  14.8%
gi_160962597_gb_ABX54869.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]        36/243     =  14.8%
gi_160962557_gb_ABX54849.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]        36/243     =  14.8%
gi_160962547_gb_ABX54844.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]        36/243     =  14.8%
gi_160347130_gb_ABX26143.1__allergen_Ole_e_5_[Olea_europaea]                     36/243     =  14.8%
gi_1321724_emb_CAA96543.1__major_allergen_Bet_v_1_[Betula_pendula]               36/243     =  14.8%
gi_1168710_sp_P43186.2_BEV1M_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-M 36/243     =  14.8%
gi_83305645_sp_Q92450.3_SODM_ASPFU_RecName__Full=Superoxide_dismutase_[Mn],_mito 44/299     =  14.7%
gi_169822894_gb_ACA96507.1__Pac_c_3_allergen,_partial_[Pachycondyla_chinensis]   40/272     =  14.7%
gi_14423832_sp_P82971.1_PA2_BOMTE_RecName__Full=Phospholipase_A2__Short=PLA2__Al 35/238     =  14.7%
gi_1321726_emb_CAA96544.1__major_allergen_Bet_v_1_[Betula_pendula]               36/245     =  14.7%
gi_126608_sp_P00698.1_LYSC_CHICK_RecName__Full=Lysozyme_C__AltName__Full=1,4-bet 37/252     =  14.7%
gi_291482308_emb_CBK62694.1__ragweed_homologue_of_Art_v_1_precursor_[Ambrosia_ar 37/253     =  14.6%
gi_256635_gb_AAB23482.1__Kunitz_trypsin_inhibitor_KTi1_[Glycine_max]             38/260     =  14.6%
gi_2506460_sp_P02221.2_GLB1_CHITH_RecName__Full=Globin_CTT-I/CTT-IA__AltName__Fu 37/254     =  14.6%
gi_83300389_sp_O42799.2_ALL7_ASPFU_RecName__Full=Allergen_Asp_f_7__AltName__Alle 48/330     =  14.5%
gi_60678787_gb_AAX33728.1__Per_a_4_allergen_[Periplaneta_americana]              36/249     =  14.5%
gi_160347120_gb_ABX26138.1__allergen_Ole_e_5_[Olea_europaea]                     35/242     =  14.5%
gi_1321733_emb_CAA96549.1__major_allergen_Cor_a_1_[Corylus_avellana]             36/248     =  14.5%
gi_160962587_gb_ABX54864.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]        35/243     =  14.4%
gi_145313972_gb_ABP58627.1__pollen_allergen_Ole_e_5_[Olea_europaea]              35/243     =  14.4%
gi_1321722_emb_CAA96542.1__major_allergen_Bet_v_1_[Betula_pendula]               35/243     =  14.4%
gi_89892723_gb_ABD79095.1__Zea_m_1_allergen_[Zea_mays]                           43/300     =  14.3%
gi_730049_sp_P38950.2_MPAC2_CARBE_RecName__Full=Major_pollen_allergen_Car_b_1_is 35/244     =  14.3%
gi_58371884_emb_CAG26895.1__Arg_r_1_precursor_[Argas_reflexus]                   36/251     =  14.3%
gi_47117012_sp_Q7M4I5.1_PA2_APIDO_RecName__Full=Phospholipase_A2__Short=PLA2__Al 33/231     =  14.3%
gi_338930682_emb_CBM42665.1__group_13_grass_pollen_allergen_[Paspalum_notatum]   36/252     =  14.3%
gi_124365251_gb_ABN09654.1__beta-1,3-glucanase_[Hevea_brasiliensis]              57/399     =  14.3%
gi_8101713_gb_AAF72626.1_AF257492_1_Cup_s_1_pollen_allergen_precursor_[Cupressus 58/408     =  14.2%
gi_51316532_sp_Q9LD79.2_PRR3_JUNVI_RecName__Full=Pathogenesis-related_protein__A 34/239     =  14.2%
gi_4007040_emb_CAA10345.1__pollen_allergen_(group_II)_[Dactylis_glomerata]       32/226     =  14.2%
gi_4006967_emb_CAA07330.1__pollen_allergen_Betv1,_isoform_at7_[Betula_pendula]   37/261     =  14.2%
gi_322812205_pdb_2X45_A_Chain_A,_Crystal_Structure_Of_Arg_R_1_In_Complex_With_Hi 34/239     =  14.2%
gi_313870530_gb_ADR82196.1__hevamine_[Hevea_brasiliensis]                        39/274     =  14.2%
gi_300872535_gb_ADK39021.1__pollen_allergen_[Ostrya_carpinifolia]                35/246     =  14.2%
gi_1648970_gb_AAB60779.1__manganese_superoxide_dismutase,_partial_[Aspergillus_f 44/310     =  14.2%
gi_160962577_gb_ABX54859.1__Ole_e_5_olive_pollen_allergen_[Olea_europaea]        34/240     =  14.2%
gi_160347126_gb_ABX26141.1__allergen_Ole_e_5_[Olea_europaea]                     34/240     =  14.2%
gi_159162378_pdb_1H2O_A_Chain_A,_Solution_Structure_Of_The_Major_Cherry_Allergen 37/261     =  14.2%
gi_1545887_emb_CAB02212.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            34/239     =  14.2%
gi_1545879_emb_CAB02208.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            34/239     =  14.2%
gi_11762104_gb_AAG40330.1_AF323974_1_major_allergen_variant_Cor_a_1.0403_[Corylu 36/253     =  14.2%
gi_11762102_gb_AAG40329.1_AF323973_1_major_allergen_variant_Cor_a_1.0402_[Corylu 36/253     =  14.2%
gi_4006961_emb_CAA07327.1__pollen_allergen_Betv1,_isoform_at59_[Betula_pendula]  36/256     =  14.1%
gi_4006955_emb_CAA07324.1__pollen_allergen_Betv1,_isoform_at42_[Betula_pendula]  35/249     =  14.1%
gi_37958161_gb_AAP35075.1__Der_f_1_allergen_[Dermatophagoides_farinae]           43/305     =  14.1%
gi_2266625_emb_CAB10765.1__group_V_allergen_[Holcus_lanatus]                     42/297     =  14.1%
gi_9087152_sp_P81294.1_MPAJ1_JUNAS_RecName__Full=Major_pollen_allergen_Jun_a_1__ 57/408     =  14.0%
gi_338930678_emb_CBM42663.1__group_13_grass_pollen_allergen_[Paspalum_notatum]   61/437     =  14.0%
gi_338930676_emb_CBM42662.1__group_13_grass_pollen_allergen_[Paspalum_notatum]   61/437     =  14.0%
gi_281552898_emb_CAM31909.1__bet_v_1_related_allergen_[Actinidia_deliciosa]      35/250     =  14.0%
gi_158517845_sp_P15476.2_PATB1_SOLTU_RecName__Full=Patatin-B1__Flags__Precursor  58/413     =  14.0%
gi_124148_sp_P16348.1_API11_SOLTU_RecName__Full=Aspartic_protease_inhibitor_11__ 39/279     =  14.0%
gi_8101717_gb_AAF72628.1_AF257494_1_Cup_s_1_pollen_allergen_precursor_[Cupressus 57/411     =  13.9%
gi_8101711_gb_AAF72625.1_AF257491_1_Cup_s_1_pollen_allergen_precursor_[Cupressus 57/411     =  13.9%
gi_1173074_sp_P42038.1_RLA3_CLAHE_60S_acidic_ribosomal_protein_P2_(Allergen_Cla_ 33/237     =  13.9%
```

gi_89892727_gb_ABD79097.1__Zea_m_13_allergen_[Zea_mays]	60/434	=	13.8%
gi_534900_emb_CAA54695.1__1_Sc2_[Betula_pendula]	35/253	=	13.8%
gi_402745_emb_CAA47357.1__Car_b_I_[Carpinus_betulus]	33/239	=	13.8%
gi_4006965_emb_CAA07329.1__pollen_allergen_Betv1,_isoform_at5_[Betula_pendula]	36/261	=	13.8%
gi_4006953_emb_CAA07323.1__pollen_allergen_Betv1,_isoform_at37_[Betula_pendula]	37/269	=	13.8%
gi_338930674_emb_CBM42661.1__group_13_grass_pollen_allergen_[Paspalum_notatum]	60/435	=	13.8%
gi_3201547_emb_CAB01591.1__endochitinase_[Persea_americana]	49/354	=	13.8%
gi_19069497_emb_CAC37790.2__putative_allergen_Cup_a_1_[Hesperocyparis_arizonica]	56/405	=	13.8%
gi_160347138_gb_ABX26147.1__allergen_Ole_e_5_[Olea_europaea]	33/240	=	13.8%
gi_160347134_gb_ABX26145.1__allergen_Ole_e_5_[Olea_europaea]	33/240	=	13.8%
gi_1542865_emb_CAB02157.1__pollen_allergen_Bet_v_1_[Betula_pendula]	37/269	=	13.8%
gi_963013_emb_CAA59419.1__aspergillopepsin_i_[Aspergillus_fumigatus]	59/431	=	13.7%
gi_7638030_gb_AAF65313.1_AF230384_1_venom_allergen_Sol_g_4.02_precursor_[Solenop	32/234	=	13.7%
gi_7638028_gb_AAF65312.1_AF230383_1_venom_allergen_Sol_g_4.01_precursor_[Solenop	32/234	=	13.7%
gi_7271239_emb_CAA09886.2__allergen_[Malassezia_sympodialis]	38/277	=	13.7%
gi_338930672_emb_CBM42660.1__group_13_grass_pollen_allergen_[Paspalum_notatum]	60/439	=	13.7%
gi_317383196_gb_ADV17342.1__myosin_light_chain_[Penaeus_monodon]	35/255	=	13.7%
gi_89892725_gb_ABD79096.1__Zea_m_13_allergen_[Zea_mays]	60/440	=	13.6%
gi_15139849_emb_CAC48400.1__putative_allergen_jun_o_1_[Juniperus_oxycedrus]	56/412	=	13.6%
gi_8101719_gb_AAF72629.1_AF257495_1_Cup_s_1_pollen_allergen_precursor_[Cupressus	55/406	=	13.5%
gi_22796153_emb_CAD42710.1__hydrophobin_[Cladosporium_herbarum]	31/229	=	13.5%
gi_2154734_emb_CAB03716.1__major_allergen_[Daucus_carota]	36/266	=	13.5%
gi_167472845_gb_ABZ81044.1__pollen_allergen_Car_b_1_isoform_[Carpinus_betulus]	34/252	=	13.5%
gi_167472843_gb_ABZ81043.1__pollen_allergen_Car_b_1_isoform_[Carpinus_betulus]	34/252	=	13.5%
gi_167472841_gb_ABZ81042.1__pollen_allergen_Car_b_1_isoform_[Carpinus_betulus]	34/252	=	13.5%
gi_1545877_emb_CAB02207.1__pollen_allergen_Car_b_1_[Carpinus_betulus]	34/252	=	13.5%
gi_1545875_emb_CAB02206.1__pollen_allergen_Car_b_1_[Carpinus_betulus]	34/252	=	13.5%
gi_148361511_gb_ABQ59329.1__vacuolar_serine_protease_[Cladosporium_cladosporioid	57/421	=	13.5%
gi_8843921_gb_AAF80166.1__pollen_major_allergen_1-1_[Juniperus_virginiana]	55/409	=	13.4%
gi_8843917_gb_AAF80164.1__pollen_major_allergen_1-2_[Juniperus_virginiana]	55/409	=	13.4%
gi_4006928_emb_CAA07318.1__pollen_allergen_Betv1,_isoform_at8_[Betula_pendula]	36/269	=	13.4%
gi_261824817_pdb_3F55_D_Chain_D,_Crystal_Structure_Of_The_Native_Endo_Beta-1,3-G	50/372	=	13.4%
gi_190613907_gb_ACE80957.1__putative_allergen_Pru_p_2.01A_[Prunus_dulcis_x_Prunu	43/322	=	13.4%
gi_1542873_emb_CAB02161.1__pollen_allergen_Bet_v_1_[Betula_pendula]	36/269	=	13.4%
gi_1542861_emb_CAB02155.1__pollen_allergen_Bet_v_1_[Betula_pendula]	36/269	=	13.4%
gi_148356693_emb_CAM56786.1__parvalbumin_beta_[Gadus_morhua]	29/217	=	13.4%
gi_1321718_emb_CAA96540.1__major_allergen_Bet_v_1_[Betula_pendula]	34/253	=	13.4%
gi_21514_emb_CAA27588.1__patatin_[Solanum_tuberosum]	55/413	=	13.3%
gi_190358935_sp_P00785.4_ACTN_ACTCH_RecName__Full=Actinidain__Short=Actinidin__A	56/421	=	13.3%
gi_184198734_gb_ACC76803.1__Lit_v_3_allergen_myosin_light_chain_[Litopenaeus_van	34/255	=	13.3%
gi_169500_gb_AAA33819.1__patatin_[Solanum_tuberosum]	56/420	=	13.3%
gi_16076697_gb_AAL14079.1_AF177380_1_acidic_Cyn_d_1_isoallergen_isoform_4_precur	46/346	=	13.3%
gi_16076693_gb_AAL14077.1__acidic_Cyn_d_1_isoallergen_isoform_2_precursor_[Cynod	46/346	=	13.3%
gi_549188_sp_P35780.1_VA5_POLFU_RecName__Full=Venom_allergen_5__AltName__Full=Al	40/302	=	13.2%
gi_51315784_sp_Q7Y1X1.1_EST_HEVBR_RecName__Full=Esterase__AltName__Full=Early_no	55/418	=	13.2%
gi_21465915_pdb_1KTJ_A_Chain_A,_X-Ray_Structure_Of_Der_P_2,_The_Major_House_Dust	31/234	=	13.2%
gi_157829757_pdb_1A9V_A_Chain_A,_Tertiary_Structure_Of_The_Major_House_Dust_Mite	31/234	=	13.2%
gi_135016_sp_P00780.1_SUBT_BACLI_RecName__Full=Subtilisin_Carlsberg__Flags__Prec	56/423	=	13.2%
gi_115502167_sp_Q1ZYQ8.2_EXB10_MAIZE_RecName__Full=Expansin-B10__AltName__Full=B	42/318	=	13.2%
gi_83754241_pdb_2B5S_B_Chain_B,_Crystal_Structure_Of_Peach_Pru_P3,_The_Prototypi	29/222	=	13.1%
gi_4826572_emb_CAB42886.1__polygalacturonase_[Phleum_pratense]	59/452	=	13.1%
gi_21510_emb_CAA31575.1__unnamed_protein_product_[Solanum_tuberosum]	55/420	=	13.1%
gi_17977827_emb_CAC83659.1__parvalbumin_[Cyprinus_carpio]	31/236	=	13.1%
gi_167472839_gb_ABZ81041.1__pollen_allergen_Car_b_1_isoform_[Carpinus_betulus]	33/252	=	13.1%
gi_167472837_gb_ABZ81040.1__pollen_allergen_Car_b_1_isoform_[Carpinus_betulus]	33/252	=	13.1%
gi_124365249_gb_ABN09653.1__beta-1,3-glucanase_[Hevea_brasiliensis]	55/421	=	13.1%
gi_124294783_gb_ABN03965.1__beta-1,3-glucanase_[Hevea_brasiliensis]	55/421	=	13.1%
gi_118197955_gb_ABK78766.1__major_allergen_Cup_a_1_[Hesperocyparis_arizonica]	51/388	=	13.1%

```
gi_9087167_sp_Q9SCG9.1_MPAC1_CUPAR_RecName__Full=Major_pollen_allergen_Cup_a_1__ 50/385     =  13.0%
gi_32765543_gb_AAP87281.1__beta-1,3-glucanase_[Hevea_brasiliensis]               55/422     =  13.0%
gi_313575732_gb_ADR66946.1__non-specific_lipid_transfer_protein_[Prunus_armeniac 29/223     =  13.0%
gi_190613903_gb_ACE80955.1__putative_allergen_Pru_p_2.02_[Prunus_dulcis_x_Prunus 42/324     =  13.0%
gi_34495280_gb_AAQ73487.1__type_2_allergen_Lep_d_2.024_[Lepidoglyphus_destructor 32/249     =  12.9%
gi_1168708_sp_P43184.2_BEV1K_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-K 32/249     =  12.9%
gi_1168702_sp_P43176.2_BEV1C_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-C 32/249     =  12.9%
gi_1168701_sp_P45431.2_BEV1B_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-B 32/249     =  12.9%
gi_9087177_sp_P81295.1_PRR3_JUNAS_RecName__Full=Pathogenesis-related_protein__Al 41/321     =  12.8%
gi_66849502_gb_EAL89830.1__major_allergen_Asp_F2_[Aspergillus_fumigatus_Af293]   47/366     =  12.8%
gi_34495282_gb_AAQ73488.1__type_2_allergen_Lep_d_2.025_[Lepidoglyphus_destructor 32/250     =  12.8%
gi_304273369_gb_ADM18345.1__putative_Tab_y_1_allergen_[Tabanus_yao]              42/328     =  12.8%
gi_193806686_sp_A5HII1.1_ACTN_ACTDE_RecName__Full=Actinidain__Short=Actinidin__A 54/421     =  12.8%
gi_1842045_gb_AAB47552.1__major_allergen_Alt_a_1_subunit_[Alternaria_alternata]  32/250     =  12.8%
gi_15984_emb_CAA34486.1__unnamed_protein_product_[Actinidia_deliciosa]           54/421     =  12.8%
gi_1173071_sp_P42037.1_RLA2_ALTAL_RecName__Full=60S_acidic_ribosomal_protein_P2_ 31/243     =  12.8%
gi_1168970_sp_P42059.1_CLAH7_DAVTA_RecName__Full=Minor_allergen_Cla_h_7__AltName 38/297     =  12.8%
gi_85540942_sp_Q8J0P4.2_CRF1_ASPFU_RecName__Full=Probable_glycosidase_crf1__AltN 57/449     =  12.7%
gi_66840996_emb_CAI64397.1__putative_leucine-rich_repeat_protein_[Triticum_aesti 32/252     =  12.7%
gi_49523394_emb_CAE52833.1__polygalacturonase_[Platanus_x_acerifolia]            55/433     =  12.7%
gi_323575365_dbj_BAJ78222.1__Ani_s_11-like_protein_2_precursor,_partial_[Anisaki 44/347     =  12.7%
gi_14531016_gb_AAK63087.1__parvalbumin_beta_[Gadus_morhua]                       30/236     =  12.7%
gi_113562_sp_P22286.1_MPA93_POAPR_RecName__Full=Pollen_allergen_KBG_60__AltName_ 46/362     =  12.7%
gi_4590392_gb_AAD26560.1_AF124837_1_isoallergen_bet_v_1_b1_[Betula_pendula]      34/269     =  12.6%
gi_315113421_pdb_3LIZ_A_Chain_A,_Crystal_Structure_Of_Bla_G_2_Complexed_With_Fab 47/373     =  12.6%
gi_2564228_emb_CAA05190.1__pollen_allergen_Betv1_[Betula_pendula]                34/270     =  12.6%
gi_13959403_sp_Q01940.1_MALF1_MALFU_RecName__Full=Major_allergen_Mal_f_1__AltNam 53/421     =  12.6%
gi_12583685_dbj_BAB21491.1__Bet_vI_jap3_[Betula_platyphylla_var._japonica]       34/269     =  12.6%
gi_12583683_dbj_BAB21490.1__Bet_vI_jap2_[Betula_platyphylla_var._japonica]       34/269     =  12.6%
gi_12005501_gb_AAG44480.1_AF245168_1_vacuolar_serine_protease_[Penicillium_citri 49/389     =  12.6%
gi_8927462_gb_AAF82096.1_AF259957_1_antigen_5_precursor_[Glossina_morsitans_mors 43/343     =  12.5%
gi_8101715_gb_AAF72627.1_AF257493_1_Cup_s_1_pollen_allergen_precursor_[Cupressus 52/416     =  12.5%
gi_6684758_gb_AAF23726.1_AF193420_1_allergen_Pen_n_13_[Penicillium_chrysogenum]  53/424     =  12.5%
gi_66840994_emb_CAI64396.1__serine_carboxypeptidase_II_[Triticum_aestivum]       42/335     =  12.5%
gi_4587983_gb_AAD25926.1_AF084546_1_Pen_c_1_[Penicillium_citrinum]               53/423     =  12.5%
gi_45823012_emb_CAG24374.1__unnamed_protein_product_[Phleum_pratense]            42/336     =  12.5%
gi_18281421_sp_Q91483.3_PRVB2_SALSA_RecName__Full=Parvalbumin_beta_2__AltName__F 28/224     =  12.5%
gi_1362133_pir__G53806_major_allergen_OLE26_-_common_olive_(fragment)            32/257     =  12.5%
gi_89892729_gb_ABD79098.1__Zea_m_13_allergen_[Zea_mays]                          57/459     =  12.4%
gi_54654335_gb_AAT37679.1__vacuolar_serine_protease_[Rhodotorula_mucilaginosa]   46/370     =  12.4%
gi_46122455_ref_XP_385781.1__RLA2_ALTAL_60S_acidic_ribosomal_protein_P2_(Minor_a 30/241     =  12.4%
gi_41688715_sp_Q8TFM9.1_RLA2_FUSCU_RecName__Full=60S_acidic_ribosomal_protein_P2 30/241     =  12.4%
gi_217308_dbj_BAA01241.1__mite_allergen_Der_f_II_precursor_[Dermatophagoides_far 29/234     =  12.4%
gi_21725602_emb_CAD38382.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 29/234     =  12.4%
gi_21542440_sp_P42039.3_RLA2_DAVTA_RecName__Full=60S_acidic_ribosomal_protein_P2 30/242     =  12.4%
gi_17978844_gb_AAL47677.1__major_Der_f_2_isoform,_partial_[Dermatophagoides_fari 29/234     =  12.4%
gi_1545893_emb_CAB02215.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            32/258     =  12.4%
gi_1545891_emb_CAB02214.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            32/258     =  12.4%
gi_5019414_emb_CAB44442.1__PPIase_[Aspergillus_fumigatus]                        36/292     =  12.3%
gi_313575734_gb_ADR66947.1__non-specific_lipid_transfer_protein_[Prunus_armeniac 31/253     =  12.3%
gi_288559140_sp_P86432.1_PRVB2_ONCMY_RecName__Full=Parvalbumin_beta_2            29/235     =  12.3%
gi_190684057_gb_ACE82289.1__glutathione_transferase_[Triticum_aestivum]          37/302     =  12.3%
gi_20797085_emb_CAC95153.1__parvalbumin_beta_protein_[Rana_sp._CH-2001]          30/245     =  12.2%
gi_14531020_gb_AAK63089.1__parvalbumin_[Gadus_chalcogrammus]                     27/222     =  12.2%
gi_124294785_gb_ABN03966.1__beta-1,3-glucanase_[Hevea_brasiliensis]              53/435     =  12.2%
gi_51093373_gb_AAT95008.1__allergen_Sol_i_1_precursor_[Solenopsis_invicta]       44/365     =  12.1%
gi_48428178_sp_Q9U5P7.1_ALL21_GLYDO_RecName__Full=Mite_group_2_allergen_Gly_d_2. 30/247     =  12.1%
gi_3097321_dbj_BAA25899.1__Bd_30K_[Glycine_max]                                  50/413     =  12.1%
```

```
gi_19338630_gb_AAL86739.1_AF441864_1_48-kDa_glycoprotein_precursor_[Corylus_avel 59/488     =  12.1%
gi_15886861_emb_CAC85911.1__arginine_kinase_[Plodia_interpunctella]              45/373     =  12.1%
gi_145105726_gb_ABP35603.1__Bla_g_2_allergen_variant_[Blattella_germanica]       49/406     =  12.1%
gi_1199563_gb_AAB09252.1__34_kDa_maturing_seed_vacuolar_thiol_protease_precursor 50/413     =  12.1%
gi_11514622_pdb_1QMR_A_Chain_A,_Birch_Pollen_Allergen_Bet_V_1_Mutant_N28t,_K32q, 33/273     =  12.1%
gi_94400907_ref_NP_001035360.1__allergen_Api_m_6_precursor_[Apis_mellifera]      27/225     =  12.0%
gi_539056_pir__A60373_pollen_allergen_(clone_7.2)_-_Kentucky_bluegrass_(fragment 30/249     =  12.0%
gi_50659891_gb_AAT80665.1__lipid_transfer_protein_precursor_[Malus_domestica]    30/250     =  12.0%
gi_50659885_gb_AAT80662.1__lipid_transfer_protein_precursor_[Malus_domestica]    30/250     =  12.0%
gi_50659879_gb_AAT80659.1__lipid_transfer_protein_precursor_[Malus_domestica]    30/250     =  12.0%
gi_45680856_gb_AAS75297.1__major_allergen_Alt_a_1_subunit_[Alternaria_alternata] 30/250     =  12.0%
gi_22690_emb_CAA50328.1__major_allergen_[Corylus_avellana]                       29/241     =  12.0%
gi_22686_emb_CAA50326.1__major_allergen_[Corylus_avellana]                       29/241     =  12.0%
gi_21725604_emb_CAD38383.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 28/234     =  12.0%
gi_21725600_emb_CAD38381.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 28/234     =  12.0%
gi_21725594_emb_CAD38378.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 28/234     =  12.0%
gi_17977825_emb_CAC83658.1__parvalbumin_[Cyprinus_carpio]                        27/225     =  12.0%
gi_1703445_sp_P54958.1_ASP2_BLAGE_RecName__Full=Aspartic_protease_Bla_g_2__AltNa 47/391     =  12.0%
gi_1545897_emb_CAB02217.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            31/259     =  12.0%
gi_1545895_emb_CAB02216.1__pollen_allergen_Car_b_1_[Carpinus_betulus]            31/259     =  12.0%
gi_139002766_dbj_BAF51970.1__thaumatin-like_protein_[Cryptomeria_japonica]       40/334     =  12.0%
gi_88770352_gb_ABD51779.1__allergen_Api_m_6_variant_2_precursor_[Apis_mellifera] 27/227     =  11.9%
gi_83305635_sp_Q9UUZ6.2_RLA2_ASPFU_RecName__Full=60S_acidic_ribosomal_protein_P2 29/244     =  11.9%
gi_6686524_emb_CAB64688.1__rAsp_f_8_[Aspergillus_fumigatus]                      29/244     =  11.9%
gi_534910_emb_CAA54694.1__1-Sc1_[Betula_pendula]                                 31/261     =  11.9%
gi_33149333_gb_AAP96759.1__group_1_allergen_Dac_g_1.01_precursor_[Dactylis_glome 39/327     =  11.9%
gi_323575361_dbj_BAJ78220.1__Ani_s_11_allergen_precursor_[Anisakis_simplex]      45/379     =  11.9%
gi_18652047_gb_AAL76932.1_AF456481_1_major_allergen_isoform_Dau_c_1.0201_[Daucus 29/244     =  11.9%
gi_14423757_sp_O04701.1_MPAC1_CYNDA_RecName__Full=Major_pollen_allergen_Cyn_d_1_ 40/335     =  11.9%
gi_14279169_gb_AAK58515.1_AF249675_1_beta-1,3-glucanase-like_protein_[Olea_europ 59/494     =  11.9%
gi_113560_sp_P22284.1_MPA91_POAPR_RecName__Full=Pollen_allergen_KBG_31__AltName_ 51/427     =  11.9%
gi_730035_sp_P16311.2_PEPT1_DERFA_RecName__Full=Peptidase_1__AltName__Full=Aller 43/363     =  11.8%
gi_313471397_sp_P0CH87.1_PA1_VESCR_RecName__Full=Venom_phospholipase_A1__AltName 44/373     =  11.8%
gi_29465664_gb_AAL92578.1__allergen_Ole_e_10_[Olea_europaea]                     29/246     =  11.8%
gi_27530349_dbj_BAC53948.1__Der_f_1_allergen_preproenzyme_[Dermatophagoides_fari 43/363     =  11.8%
gi_25091511_sp_P83377.1_VA5_POLGA_RecName__Full=Venom_allergen_5__AltName__Full= 35/296     =  11.8%
gi_156480837_gb_ABU68318.1__Der_f_2_allergen_[Dermatophagoides_farinae]          33/279     =  11.8%
gi_131112_sp_P02622.1_PRVB_GADMC_RecName__Full=Parvalbumin_beta__AltName__Full=A 29/246     =  11.8%
gi_1173367_sp_P18632.2_SBP_CRYJA_RecName__Full=Sugi_basic_protein__Short=SBP__Al 51/433     =  11.8%
gi_54793477_gb_AAV40850.1__lipid_transfer_protein_1_precursor_[Prunus_persica]   29/247     =  11.7%
gi_48428170_sp_Q9NFQ4.1_ALL22_GLYDO_RecName__Full=Mite_group_2_allergen_Gly_d_2. 27/230     =  11.7%
gi_4006947_emb_CAA07320.1__pollen_allergen_Betv1,_isoform_at14_[Betula_pendula]  29/247     =  11.7%
gi_313575718_gb_ADR66939.1__non-specific_lipid_transfer_protein_[Prunus_persica] 29/247     =  11.7%
gi_28373838_pdb_1N10_A_Chain_A,_Crystal_Structure_Of_Phl_P_1,_A_Major_Timothy_Gr 38/324     =  11.7%
gi_74665726_sp_Q9UVU3_Q9UVU3_ASPFL_Allergen_Asp_fl_1                             50/431     =  11.6%
gi_50659889_gb_AAT80664.1__lipid_transfer_protein_precursor_[Malus_domestica]    29/250     =  11.6%
gi_38456230_gb_AAR21075.1__PR5_allergen_Cup_s_3.3_precursor_[Cupressus_sempervir 39/335     =  11.6%
gi_38456228_gb_AAR21074.1__PR5_allergen_Cup_s_3.2_precursor_[Cupressus_sempervir 39/335     =  11.6%
gi_268037674_gb_ACY91851.1__beta-1,3-glucanase_form_RRII_Gln_2_[Hevea_brasiliens 50/430     =  11.6%
gi_129353_sp_P22895.1_P34_SOYBN_RecName__Full=P34_probable_thiol_protease__Flags 48/414     =  11.6%
gi_129235_sp_P12547.2_ORYZ_ASPOR_RecName__Full=Alkaline_protease_1__Short=ALP__A 50/431     =  11.6%
gi_124365253_gb_ABN09655.1__beta-1,3-glucanase_[Hevea_brasiliensis]              50/430     =  11.6%
gi_1184668_gb_AAA87456.1__beta-1,3-glucanase_[Hevea_brasiliensis]                50/430     =  11.6%
gi_493634_dbj_BAA05543.1__Cry_j_IB_precursor_[Cryptomeria_japonica]              49/425     =  11.5%
gi_3309039_gb_AAC25994.1__group_V_allergen_Phl_p_5.0103_precursor_[Phleum_praten 43/374     =  11.5%
gi_270315180_gb_ACZ74626.1__beta-1,3-glucanase_form_RRII_Gln_3_[Hevea_brasiliens 50/434     =  11.5%
gi_21725596_emb_CAD38379.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 27/234     =  11.5%
gi_2143220_emb_CAA73782.1__cellular_serine_proteinase_[Aspergillus_fumigatus]    60/520     =  11.5%
```

gi_166317_gb_AAA32629.1__actinidin_[Actinidia_deliciosa]	49/425	=	11.5%
gi_1304216_dbj_BAA07772.1__allergenic_protein_[Oryza_sativa_Japonica_Group]	28/244	=	11.5%
gi_11127680_gb_AAG31026.1_AF205189_1_subtilisin_precursor_[Bacillus_licheniformi	51/442	=	11.5%
gi_730036_sp_P08176.2_PEPT1_DERPT_RecName__Full=Peptidase_1__AltName__Full=Aller	42/370	=	11.4%
gi_63052_emb_CAA23681.1__unnamed_protein_product_[Gallus_gallus]	30/264	=	11.4%
gi_289742475_gb_ADD19985.1__antigen_5_precursor_[Glossina_morsitans_morsitans]	39/342	=	11.4%
gi_23495787_dbj_BAC19997.1__allergen_RA5B_precursor_[Oryza_sativa_Japonica_Group	31/272	=	11.4%
gi_195933901_gb_ACG58378.1__Der_p_1_allergen_precursor_[Dermatophagoides_pterony	42/370	=	11.4%
gi_19570315_dbj_BAB86286.1__Cry_j_1_precursor_[Cryptomeria_japonica]	49/430	=	11.4%
gi_136457_sp_P06886.1_TSST_STAAU_RecName__Full=Toxic_shock_syndrome_toxin-1__Sho	37/324	=	11.4%
gi_741844_prf__2008179A_major_allergen_Par_j_I	29/256	=	11.3%
gi_585290_sp_P32936.2_IAAB_HORVU_RecName__Full=Alpha-amylase/trypsin_inhibitor_C	29/256	=	11.3%
gi_4006963_emb_CAA07328.1__pollen_allergen_Betv1,_isoform_at87_[Betula_pendula]	28/247	=	11.3%
gi_38456224_gb_AAR21072.1__PR5_allergen_Jun_r_3.2_precursor_[Juniperus_rigida]	38/335	=	11.3%
gi_38456222_gb_AAR21071.1__PR5_allergen_Jun_r_3.1_precursor_[Juniperus_rigida]	38/335	=	11.3%
gi_14423649_sp_Q9TZZ2.2_ALL2_EURMA_RecName__Full=Mite_group_2_allergen_Eur_m_2__	28/248	=	11.3%
gi_14423646_sp_P92918.1_ALL2_APIGR_RecName__Full=Major_allergen_Api_g_2__AltName	28/248	=	11.3%
gi_126387_sp_P14948.1_MPAL3_LOLPR_RecName__Full=Pollen_allergen_Lol_p_3__AltName	26/231	=	11.3%
gi_121256_sp_P02231.1_GLBT_CHITH_RecName__Full=Globin_CTT-IIIA	30/265	=	11.3%
gi_105969543_gb_ABF81661.1__EXPB10_[Zea_mays]	25/222	=	11.3%
gi_50659859_gb_AAT80649.1__lipid_transfer_protein_precursor_[Malus_domestica]	28/250	=	11.2%
gi_4007655_emb_CAA10348.1__pollen_allergen_(group_II)_[Poa_pratensis]	27/241	=	11.2%
gi_3901094_emb_CAA81613.1__pollen_allergen_Phl_pI_[Phleum_pratense]	40/358	=	11.2%
gi_3182907_sp_O02380.1_ALL2_TYRPU_RecName__Full=Mite_group_2_allergen_Tyr_p_2__A	29/259	=	11.2%
gi_289064179_gb_ADC80503.1__non-specific_lipid_transfer_protein_1b_precursor_[Ph	28/251	=	11.2%
gi_20797081_emb_CAC95152.1__parvalbumin_beta_protein_[Pelophylax_esculentus]	26/233	=	11.2%
gi_1171009_sp_P43214.1_MPAP2_PHLPR_RecName__Full=Pollen_allergen_Phl_p_2__AltNam	27/241	=	11.2%
gi_1168402_sp_P42058.1_ALTA7_ALTAL_RecName__Full=Minor_allergen_Alt_a_7__AltName	34/304	=	11.2%
gi_664852_gb_AAB07620.1__Asp_FII_[Aspergillus_fumigatus]	35/315	=	11.1%
gi_5813790_gb_AAD52013.1_AF082515_1_Tri_r_2_allergen_[Trichophyton_rubrum]	51/461	=	11.1%
gi_4090265_emb_CAA10520.1__group_I_pollen_allergen_[Poa_pratensis]	39/350	=	11.1%
gi_291482306_emb_CBK62693.1__ragweed_homologue_of_Art_v_1_precursor_[Ambrosia_ar	26/234	=	11.1%
gi_204324083_gb_ACI01048.1__arginine_kinase_[Bombyx_mori]	42/377	=	11.1%
gi_190684063_gb_ACE82292.1__dehydrin_[Triticum_aestivum]	35/314	=	11.1%
gi_188572343_gb_ACD65081.1__eukaryotic_translation_initiation_factor_[Forcipomyi	44/397	=	11.1%
gi_146737976_gb_ABQ42566.1__thaumatin-like_protein_[Actinidia_deliciosa]	33/297	=	11.1%
gi_144952778_gb_ABP04043.1__Bla_g_4_allergen_[Blattella_germanica]	34/306	=	11.1%
gi_1304217_dbj_BAA07773.1__allergenic_protein_[Oryza_sativa_Japonica_Group]	28/252	=	11.1%
gi_110346534_emb_CAK50389.1__ani_s_4_allergen_[Anisakis_simplex]	26/235	=	11.1%
gi_9297015_sp_P82534.1_NLTP1_PRUDO_RecName__Full=Non-specific_lipid-transfer_pro	25/227	=	11.0%
gi_77799800_dbj_BAE46763.1__dark_muscle_parvalbumin_[Trachurus_japonicus]	25/227	=	11.0%
gi_75315271_sp_Q9XHP2_Q9XHP2_SESIN_15_kDa_oleosin	31/282	=	11.0%
gi_74663809_sp_Q8J077.1_SUB6_TRISH_RecName__Full=Subtilisin-like_protease_6__Alt	50/454	=	11.0%
gi_584968_sp_Q08407.3_MPAC1_CORAV_RecName__Full=Major_pollen_allergen_Cor_a_1_is	29/263	=	11.0%
gi_4376222_emb_CAA04829.1__pollen_allergen,_Betv1_[Betula_pendula]	30/272	=	11.0%
gi_3367714_emb_CAA08836.1__BDAI-1_[Hordeum_vulgare_subsp._vulgare]	29/264	=	11.0%
gi_29539109_emb_CAD87730.1__allergen_Len_c_1.0101_[Lens_culinaris]	49/444	=	11.0%
gi_23894244_emb_CAD23614.1__tri_m_2_allergen_[Arthroderma_benhamiae]	49/447	=	11.0%
gi_198250343_gb_ACH85188.1__main_allergen_15_kDa_oleosin_[Sesamum_indicum]	31/282	=	11.0%
gi_58700651_gb_AAW81034.1__profilin_[Crocus_sativus]	28/258	=	10.9%
gi_50199132_emb_CAH03799.1__lipid_transfer_protein_[Citrus_sinensis]	27/247	=	10.9%
gi_38492423_pdb_1LLT_A_Chain_A,_Birch_Pollen_Allergen_Bet_V_1_Mutant_E45s	30/276	=	10.9%
gi_3287877_sp_P81402.1_NLTP1_PRUPE_RecName__Full=Non-specific_lipid-transfer_pro	25/229	=	10.9%
gi_288561913_sp_P85894.1_LTP1_MORNI_RecName__Full=Non-specific_lipid-transfer_pr	25/229	=	10.9%
gi_21725590_emb_CAD38376.1__unnamed_protein_product_[Dermatophagoides_pteronyssi	28/258	=	10.9%
gi_1582250_prf__2118271A_allergen_PhI_p_I	38/349	=	10.9%
gi_13507262_gb_AAK28533.1_AF329829_1_lipid_transfer_protein_precursor_[Corylus_a	26/239	=	10.9%
gi_61225281_gb_AAX40948.1__allergen_Ziz_m_1_[Ziziphus_mauritiana]	42/390	=	10.8%

```
gi_4590394_gb_AAD26561.1_AF124838_1_isoallergen_Bet_v_1_b2_[Betula_pendula]      30/277     =  10.8%
gi_4006957_emb_CAA07325.1__pollen_allergen_Betv1,_isoform_at45_[Betula_pendula]  30/277     =  10.8%
gi_38492338_gb_AAR22488.1__allergen_Mal_d_3_[Malus_domestica]                    27/250     =  10.8%
gi_313471398_sp_P0CH86.1_PA1_VESSQ_RecName__Full=Venom_phospholipase_A1__AltName 40/372     =  10.8%
gi_29539111_emb_CAD87731.1__allergen_Len_c_1.0102_[Lens_culinaris]               49/455     =  10.8%
gi_269996497_gb_ACZ57583.1__allergenic_thaumatin_[Olea_europaea]                 36/334     =  10.8%
gi_166235350_pdb_2JON_A_Chain_A,_Solution_Structure_Of_The_C-Terminal_Domain_Ole 27/249     =  10.8%
gi_14423814_sp_Q9M5X7.1_NLTP_MALDO_RecName__Full=Non-specific_lipid-transfer_pro 27/250     =  10.8%
gi_14423688_sp_Q9LEJ0.1_ENO1_HEVBR_RecName__Full=Enolase_1__AltName__Full=2-phos 53/489     =  10.8%
gi_108935817_sp_P40108.2_ALDH_DAVTA_RecName__Full=Aldehyde_dehydrogenase__Short= 55/508     =  10.8%
gi_8118439_gb_AAF72991.1_AF261278_1_beta-expansin_[Oryza_sativa]                 37/345     =  10.7%
gi_6715520_gb_AAF26449.1__lipid_transfer_protein_precursor_[Prunus_avium]        27/253     =  10.7%
gi_37499626_gb_AAQ91847.1__Ara_h_8_allergen_[Arachis_hypogaea]                   29/271     =  10.7%
gi_313575728_gb_ADR66944.1__non-specific_lipid_transfer_protein_[Prunus_avium]   27/253     =  10.7%
gi_3121745_sp_O18873.1_ALL1_CANFA_RecName__Full=Major_allergen_Can_f_1__AltName_ 30/281     =  10.7%
gi_21512_emb_CAA27571.1__patatin_[Solanum_tuberosum]                             45/422     =  10.7%
gi_135917_sp_P27357.1_TLP_WHEAT_RecName__Full=Thaumatin-like_protein_PWIR2__Flag 32/298     =  10.7%
gi_4006945_emb_CAA07319.1__pollen_allergen_Betv1,_isoform_at10_[Betula_pendula]  29/273     =  10.6%
gi_313575726_gb_ADR66943.1__non-specific_lipid_transfer_protein_[Prunus_avium]   27/254     =  10.6%
gi_293329689_dbj_BAJ04354.1__pollen_allergen_CPA63_[Cryptomeria_japonica]        54/510     =  10.6%
gi_289740263_gb_ADD18879.1__salivary_antigen_5_precursor_[Glossina_morsitans_mor 38/360     =  10.6%
gi_2564224_emb_CAA05188.1__pollen_allergen_Betv1_[Betula_pendula]                29/273     =  10.6%
gi_2564220_emb_CAA05186.1__pollen_allergen_Betv1_[Betula_pendula]                29/273     =  10.6%
gi_194350817_gb_ACF53837.1__Bla_g_4_isoallergen_2_[Blattella_germanica]          33/311     =  10.6%
gi_166216292_sp_A2VBC4.1_PA1_POLPI_RecName__Full=Venom_phospholipase_A1__AltName 42/398     =  10.6%
gi_156938917_gb_ABU97480.1__allergen_Tyr_p_13_[Tyrophagus_putrescentiae]         25/235     =  10.6%
gi_1168709_sp_P43185.2_BEV1L_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-L 29/273     =  10.6%
gi_1168706_sp_P43180.2_BEV1G_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-G 29/273     =  10.6%
gi_1168703_sp_P43177.2_BEV1D_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-D 29/273     =  10.6%
gi_3914387_sp_P56578.1_MALF3_MALFU_RecName__Full=Putative_peroxiredoxin__AltName 31/295     =  10.5%
gi_2497701_sp_Q28133.1_ALL2_BOVIN_RecName__Full=Allergen_Bos_d_2__AltName__Full= 30/285     =  10.5%
gi_2415700_emb_CAA70609.1__profilin_3_[Phleum_pratense]                          27/257     =  10.5%
gi_21725592_emb_CAD38377.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 27/258     =  10.5%
gi_21725588_emb_CAD38375.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 27/258     =  10.5%
gi_21725586_emb_CAD38374.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 27/258     =  10.5%
gi_21725582_emb_CAD38372.1__unnamed_protein_product_[Dermatophagoides_pteronyssi 27/258     =  10.5%
gi_189544590_gb_ACE07188.1__Art_v_3.0301_allergen_precursor_[Artemisia_vulgaris] 24/229     =  10.5%
gi_1850540_gb_AAB48041.1__ribosomal_P2_phosphoprotein_[Alternaria_alternata]     26/247     =  10.5%
gi_159162097_pdb_1B6F_A_Chain_A,_Birch_Pollen_Allergen_Bet_V_1                   29/276     =  10.5%
gi_1542869_emb_CAB02159.1__pollen_allergen_Bet_v_1_[Betula_pendula]              29/277     =  10.5%
gi_1321728_emb_CAA96547.1__major_allergen_Bet_v_1_[Betula_pendula]               29/277     =  10.5%
gi_1321720_emb_CAA96541.1__major_allergen_Bet_v_1_[Betula_pendula]               29/277     =  10.5%
gi_114922_sp_P15494.2_BEV1A_BETPN_RecName__Full=Major_pollen_allergen_Bet_v_1-A_ 29/277     =  10.5%
gi_9087163_sp_Q96385.1_MPAC1_CHAOB_RecName__Full=Major_pollen_allergen_Cha_o_1__ 46/442     =  10.4%
gi_74611808_sp_Q6R4B4.1_GST_ALTAL_RecName__Full=Glutathione-S-transferase__AltNa 35/336     =  10.4%
gi_4376216_emb_CAA04823.1__pollen_allergen,_Betv1_[Betula_pendula]               28/269     =  10.4%
gi_398830_emb_CAA52753.1__Phlp5_[Phleum_pratense]                                40/386     =  10.4%
gi_289064177_gb_ADC80502.1__non-specific_lipid_transfer_protein_1a_precursor_[Ph 25/240     =  10.4%
gi_189544584_gb_ACE07187.1__Art_v_3_allergen_precursor_[Artemisia_vulgaris]      26/249     =  10.4%
gi_18639_emb_CAA33217.1__glycinin_subunit_G3_[Glycine_max]                       55/531     =  10.4%
gi_161610580_gb_ABX75045.1__LTP_isoallergen_2_[Arachis_hypogaea]                 24/231     =  10.4%
gi_1542867_emb_CAB02158.1__pollen_allergen_Bet_v_1_[Betula_pendula]              30/289     =  10.4%
gi_9929163_emb_CAC05258.1__Cup_a_3_protein_[Hesperocyparis_arizonica]            33/321     =  10.3%
gi_71057064_emb_CAI38795.2__thaumatin-like_protein_[Actinidia_deliciosa]         33/321     =  10.3%
gi_59894749_gb_AAX11194.1__60S_acidic_ribosomal_P1_phosphoprotein_Pen_b_26_[Peni 25/243     =  10.3%
gi_313575730_gb_ADR66945.1__non-specific_lipid_transfer_protein_[Prunus_armeniac 26/252     =  10.3%
gi_302127824_emb_CBW30993.1__putative_pectate_lyase_precursor_[Ambrosia_artemisi 45/437     =  10.3%
gi_27818335_gb_AAO24900.1__major_pollen_allergen_Art_v_1_precursor_[Artemisia_vu 24/233     =  10.3%
```

gi_256095986_emb_CAQ68250.1__Der_p_1_allergen_precursor_[Dermatophagoides_pteron	39/379	=	10.3%
gi_21701_emb_CAA35598.1__unnamed_protein_product_[Triticum_aestivum]	27/263	=	10.3%
gi_189544595_gb_ACE07189.1__Art_v_3_allergen_precursor_[Artemisia_vulgaris]	26/252	=	10.3%
gi_1542871_emb_CAB02160.1__pollen_allergen_Bet_v_1_[Betula_pendula]	28/273	=	10.3%
gi_14423687_sp_Q9LEI9.1_ENO2_HEVBR_RecName__Full=Enolase_2__AltName__Full=2-phos	49/476	=	10.3%
gi_12583681_dbj_BAB21489.1__Bet_vI_jap1_[Betula_platyphylla_var._japonica]	28/273	=	10.3%
gi_94706935_sp_P0C1B3.1_AMYA1_ASPOR_RecName__Full=Alpha-amylase_A_type-1/2__AltN	52/510	=	10.2%
gi_289172_gb_AAA32702.1__serine_protease_[Aspergillus_niger]	57/557	=	10.2%
gi_22684_emb_CAA50325.1__major_allergen_[Corylus_avellana]	27/265	=	10.2%
gi_222352960_emb_CAR48256.1__beta-parvalbumin_[Xiphias_gladius]	23/225	=	10.2%
gi_21069093_gb_AAM33821.1__alkaline_serine_protease_[Penicillium_chrysogenum]	45/440	=	10.2%
gi_18093991_emb_CAD20406.1__unnamed_protein_product_[Dactylis_glomerata]	34/334	=	10.2%
gi_1532058_emb_CAA65123.1__P9_protein_[Parietaria_judaica]	29/283	=	10.2%
gi_118572685_sp_P00791.3_PEPA_PIG_RecName__Full=Pepsin_A__Flags__Precursor	44/430	=	10.2%
gi_113478_sp_P28744.1_MPA14_AMBAR_RecName__Full=Pollen_allergen_Amb_a_1.4__AltNa	45/442	=	10.2%
gi_47605504_sp_Q8LGR0.1_CHE1_CHEAL_RecName__Full=Pollen_allergen_Che_a_1__AltNam	28/276	=	10.1%
gi_42414629_emb_CAF25233.1__Vicilin_[Pisum_sativum]	46/456	=	10.1%
gi_4006959_emb_CAA07326.1__pollen_allergen_Betv1,_isoform_at50_[Betula_pendula]	28/277	=	10.1%
gi_2564222_emb_CAA05187.1__pollen_allergen_Betv1_[Betula_pendula]	28/277	=	10.1%
gi_21725584_emb_CAD38373.1__unnamed_protein_product_[Dermatophagoides_pteronyssi	26/258	=	10.1%
gi_1542863_emb_CAB02156.1__pollen_allergen_Bet_v_1_[Betula_pendula]	28/277	=	10.1%
gi_1532056_emb_CAA65122.1__P8_protein_[Parietaria_judaica]	24/238	=	10.1%
gi_1346568_sp_P49372.1_ALL1_APIGR_RecName__Full=Major_allergen_Api_g_1__AltName_	28/276	=	10.1%
gi_113476_sp_P27760.1_MPA12_AMBAR_RecName__Full=Pollen_allergen_Amb_a_1.2__AltNa	48/475	=	10.1%
gi_110560872_gb_ABG76196.1__group_2_allergen_Der_p_2_[Dermatophagoides_pteronyss	24/237	=	10.1%
gi_83305621_sp_Q8NKF4.2_RL3_ASPFU_RecName__Full=60S_ribosomal_protein_L3__AltNam	44/442	=	10.0%
gi_75274600_sp_Q9SC98_Q9SC98_LOLPR_Pollen_allergen	33/330	=	10.0%
gi_4138173_emb_CAA09884.1__allergen_[Malassezia_sympodialis]	29/291	=	10.0%
gi_3860384_emb_CAA10140.1__major_group_I_allergen_Hol_l_1_[Holcus_lanatus]	36/359	=	10.0%
gi_37078092_sp_Q870B9.1_ENO_RHOMI_RecName__Full=Enolase__AltName__Full=2-phospho	48/479	=	10.0%
gi_302379155_gb_ADL32664.1__PRP-like_protein_[Daucus_carota]	27/269	=	10.0%
gi_302379153_gb_ADL32663.1__PRP-like_protein_[Daucus_carota]	27/269	=	10.0%
gi_302379151_gb_ADL32662.1__PRP-like_protein_[Daucus_carota]	27/269	=	10.0%
gi_302127812_emb_CBW30987.1__putative_pectate_lyase_precursor_[Ambrosia_artemisi	48/480	=	10.0%
gi_29839547_sp_Q8GT41.1_PLA1_PLAAC_RecName__Full=Putative_invertase_inhibitor__A	31/309	=	10.0%
gi_29420793_dbj_BAC66618.1__parvalbumin_[Scomber_japonicus]	24/241	=	10.0%
gi_25991543_gb_AAN76862.1_AF453947_1_allergen_Ana_o_2_[Anacardium_occidentale]	48/479	=	10.0%
gi_2497750_sp_P55958.1_NLT21_PARJU_RecName__Full=Probable_non-specific_lipid-tra	26/261	=	10.0%
gi_21215170_gb_AAM43909.1_AF464911_1_large_subunit_ribosomal_protein_L3_[Aspergi	44/442	=	10.0%
gi_168316_gb_AAA63279.1__pollen_allergen_[Lolium_perenne]	33/330	=	10.0%
gi_15426413_gb_AAF07903.2__procalin_[Triatoma_protracta]	28/279	=	10.0%
gi_1398918_dbj_BAA07713.1__allergenic_protein_[Oryza_sativa_Japonica_Group]	30/300	=	10.0%
gi_126385_sp_P14946.2_MPAL1_LOLPR_RecName__Full=Pollen_allergen_Lol_p_1__AltName	33/330	=	10.0%
gi_110180523_gb_ABG54494.1__putative_allergen_Rub_i_3_[Rubus_idaeus]	26/259	=	10.0%

G Results from the EFSA scientific opinion recommended allergen analysis of Protease from WTY939-8-3 using allergen.org database

G.1 35% or larger identity over any 80 amino acid window

```
UNIPROT:Q8MWR4 43.4% identity i 83 aa overlap.
UNIPROT:Q8MWR4 42.7% identity i 82 aa overlap.
UNIPROT:Q8MWR4 42.7% identity i 82 aa overlap.
UNIPROT:Q8MWR4 42.5% identity i 80 aa overlap.
UNIPROT:Q8MWR4 42.5% identity i 80 aa overlap.
UNIPROT:Q8MWR4 42.0% identity i 81 aa overlap.
UNIPROT:Q8MWR4 42.0% identity i 81 aa overlap.
UNIPROT:Q8MWR4 41.9% identity i 86 aa overlap.
UNIPROT:Q8MWR4 41.2% identity i 85 aa overlap.
UNIPROT:Q8MWR4 40.4% identity i 89 aa overlap.
UNIPROT:Q8MWR4 39.8% identity i 88 aa overlap.
UNIPROT:Q8MWR4 39.5% identity i 86 aa overlap.
UNIPROT:Q8MWR4 39.5% identity i 86 aa overlap.
UNIPROT:Q8MWR4 39.1% identity i 87 aa overlap.
UNIPROT:Q8MWR4 39.1% identity i 87 aa overlap.
UNIPROT:Q8MWR4 39.1% identity i 87 aa overlap.
UNIPROT:Q8MWR4 39.1% identity i 87 aa overlap.
UNIPROT:Q8MWR4 38.4% identity i 86 aa overlap.
UNIPROT:Q8MWR4 38.4% identity i 86 aa overlap.
UNIPROT:Q8MWR4 37.9% identity i 87 aa overlap.
UNIPROT:Q8MWR4 37.8% identity i 82 aa overlap.
UNIPROT:Q8MWR4 37.8% identity i 82 aa overlap.
UNIPROT:Q8MWR4 37.6% identity i 85 aa overlap.
UNIPROT:Q8MWR4 37.6% identity i 85 aa overlap.
UNIPROT:Q8MWR4 36.9% identity i 84 aa overlap.
UNIPROT:Q8MWR4 36.9% identity i 84 aa overlap.
UNIPROT:Q8MWR4 36.9% identity i 84 aa overlap.
UNIPROT:Q8MWR4 36.9% identity i 84 aa overlap.
UNIPROT:Q8MWR4 36.8% identity i 87 aa overlap.
UNIPROT:Q8MWR4 36.1% identity i 83 aa overlap.
UNIPROT:Q8MWR4 35.4% identity i 82 aa overlap.
UNIPROT:Q8MQS8 40.7% identity i 86 aa overlap.
UNIPROT:Q8MQS8 40.7% identity i 86 aa overlap.
UNIPROT:Q8MQS8 40.2% identity i 82 aa overlap.
UNIPROT:Q8MQS8 40.0% identity i 85 aa overlap.
UNIPROT:Q8MQS8 40.0% identity i 85 aa overlap.
UNIPROT:Q8MQS8 40.0% identity i 85 aa overlap.
UNIPROT:Q8MQS8 39.3% identity i 84 aa overlap.
UNIPROT:Q8MQS8 39.1% identity i 87 aa overlap.
UNIPROT:Q8MQS8 39.1% identity i 87 aa overlap.
UNIPROT:Q8MQS8 38.4% identity i 86 aa overlap.
UNIPROT:Q8MQS8 38.3% identity i 81 aa overlap.
UNIPROT:Q8MQS8 37.6% identity i 85 aa overlap.
UNIPROT:Q8MQS8 37.3% identity i 83 aa overlap.
UNIPROT:Q8MQS8 37.3% identity i 83 aa overlap.
UNIPROT:Q8MQS8 37.2% identity i 86 aa overlap.
UNIPROT:Q8MQS8 37.0% identity i 81 aa overlap.
UNIPROT:Q8MQS8 37.0% identity i 81 aa overlap.
UNIPROT:Q8MQS8 37.0% identity i 81 aa overlap.
UNIPROT:Q8MQS8 36.9% identity i 84 aa overlap.
UNIPROT:Q8MQS8 36.9% identity i 84 aa overlap.
UNIPROT:Q8MQS8 36.6% identity i 82 aa overlap.
UNIPROT:Q8MQS8 36.2% identity i 80 aa overlap.
UNIPROT:Q8MQS8 36.2% identity i 80 aa overlap.
UNIPROT:Q8MQS8 36.2% identity i 80 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.8% identity i 81 aa overlap.
UNIPROT:Q8MQS8 35.7% identity i 84 aa overlap.
UNIPROT:Q8MQS8 35.3% identity i 85 aa overlap.
UNIPROT:Q8MQS8 35.3% identity i 85 aa overlap.
UNIPROT:Q8MQS8 35.3% identity i 85 aa overlap.
UNIPROT:Q8MQS8 35.3% identity i 85 aa overlap.
UNIPROT:Q8MQS8 35.3% identity i 85 aa overlap.
UNIPROT:Q8I916 60.2% identity i 83 aa overlap.
UNIPROT:Q8I916 60.2% identity i 83 aa overlap.
UNIPROT:Q8I916 60.0% identity i 80 aa overlap.
UNIPROT:Q8I916 59.8% identity i 82 aa overlap.
UNIPROT:Q8I916 59.5% identity i 84 aa overlap.
UNIPROT:Q8I916 59.3% identity i 86 aa overlap.
```

UNIPROT:Q8I916 59.3% identity i 86 aa overlap.
UNIPROT:Q8I916 59.3% identity i 86 aa overlap.
UNIPROT:Q8I916 59.3% identity i 86 aa overlap.
UNIPROT:Q8I916 59.0% identity i 83 aa overlap.
UNIPROT:Q8I916 59.0% identity i 83 aa overlap.
UNIPROT:Q8I916 58.8% identity i 85 aa overlap.
UNIPROT:Q8I916 58.8% identity i 85 aa overlap.
UNIPROT:Q8I916 58.8% identity i 85 aa overlap.
UNIPROT:Q8I916 58.8% identity i 85 aa overlap.
UNIPROT:Q8I916 58.6% identity i 87 aa overlap.
UNIPROT:Q8I916 58.3% identity i 84 aa overlap.
UNIPROT:Q8I916 58.3% identity i 84 aa overlap.
UNIPROT:Q8I916 58.3% identity i 84 aa overlap.
UNIPROT:Q8I916 58.1% identity i 86 aa overlap.
UNIPROT:Q8I916 58.1% identity i 86 aa overlap.
UNIPROT:Q8I916 57.8% identity i 83 aa overlap.
UNIPROT:Q8I916 57.8% identity i 83 aa overlap.
UNIPROT:Q8I916 57.5% identity i 87 aa overlap.
UNIPROT:Q8I916 56.6% identity i 83 aa overlap.
UNIPROT:Q8I916 56.6% identity i 83 aa overlap.
UNIPROT:Q8I916 56.5% identity i 85 aa overlap.
UNIPROT:Q8I916 56.5% identity i 85 aa overlap.
UNIPROT:Q8I916 56.1% identity i 82 aa overlap.
UNIPROT:Q8I916 56.0% identity i 84 aa overlap.
UNIPROT:Q8I916 56.0% identity i 84 aa overlap.
UNIPROT:Q8I916 56.0% identity i 84 aa overlap.
UNIPROT:Q8I916 55.8% identity i 86 aa overlap.
UNIPROT:Q8I916 55.3% identity i 85 aa overlap.
UNIPROT:Q8I916 55.3% identity i 85 aa overlap.
UNIPROT:Q8I916 54.7% identity i 86 aa overlap.
UNIPROT:Q8I916 54.7% identity i 86 aa overlap.
UNIPROT:Q8I916 54.7% identity i 86 aa overlap.
UNIPROT:Q8I916 54.7% identity i 86 aa overlap.
UNIPROT:Q8I916 53.5% identity i 86 aa overlap.
UNIPROT:Q8I916 52.9% identity i 85 aa overlap.
UNIPROT:Q8I916 52.4% identity i 84 aa overlap.
UNIPROT:Q8I916 51.8% identity i 83 aa overlap.
UNIPROT:Q8I916 51.2% identity i 82 aa overlap.
UNIPROT:Q8I916 50.6% identity i 81 aa overlap.
UNIPROT:Q8I916 49.4% identity i 81 aa overlap.
UNIPROT:Q8I916 49.4% identity i 81 aa overlap.
UNIPROT:Q8I916 45.2% identity i 84 aa overlap.
UNIPROT:Q8I916 45.2% identity i 84 aa overlap.
UNIPROT:Q8I916 44.4% identity i 81 aa overlap.
UNIPROT:Q8I916 44.0% identity i 84 aa overlap.
UNIPROT:Q8I916 44.0% identity i 84 aa overlap.
UNIPROT:Q8I916 44.0% identity i 84 aa overlap.
UNIPROT:Q8I916 43.9% identity i 82 aa overlap.
UNIPROT:Q8I916 43.9% identity i 82 aa overlap.
UNIPROT:Q8I916 43.4% identity i 83 aa overlap.
UNIPROT:Q8I916 43.2% identity i 81 aa overlap.
UNIPROT:Q8I916 43.2% identity i 81 aa overlap.
UNIPROT:Q8I916 40.0% identity i 85 aa overlap.
UNIPROT:Q8I916 39.8% identity i 88 aa overlap.
UNIPROT:Q8I916 39.8% identity i 83 aa overlap.
UNIPROT:Q8I916 38.6% identity i 88 aa overlap.
UNIPROT:Q8I916 38.6% identity i 83 aa overlap.
UNIPROT:Q8I916 38.6% identity i 83 aa overlap.
UNIPROT:Q8I916 38.6% identity i 83 aa overlap.
UNIPROT:Q8I916 38.6% identity i 83 aa overlap.
UNIPROT:Q8I916 37.8% identity i 82 aa overlap.
UNIPROT:Q8I916 37.5% identity i 88 aa overlap.
UNIPROT:Q8I916 37.2% identity i 86 aa overlap.
UNIPROT:Q8I916 37.0% identity i 81 aa overlap.
UNIPROT:Q8I916 36.8% identity i 87 aa overlap.
UNIPROT:Q8I916 36.4% identity i 88 aa overlap.
UNIPROT:Q8I916 36.1% identity i 83 aa overlap.
UNIPROT:Q8I916 36.0% identity i 86 aa overlap.
UNIPROT:Q8I916 36.0% identity i 86 aa overlap.
UNIPROT:Q8I916 35.8% identity i 81 aa overlap.
UNIPROT:Q8I916 35.8% identity i 81 aa overlap.
UNIPROT:Q8I916 35.8% identity i 81 aa overlap.
UNIPROT:Q8I916 35.2% identity i 88 aa overlap.
UNIPROT:Q7Z269 39.3% identity i 84 aa overlap.
UNIPROT:Q7Z269 39.1% identity i 87 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z269 38.3% identity i 81 aa overlap.
UNIPROT:Q7Z269 38.3% identity i 81 aa overlap.
UNIPROT:Q7Z269 38.3% identity i 81 aa overlap.
UNIPROT:Q7Z269 38.3% identity i 81 aa overlap.
UNIPROT:Q7Z269 38.1% identity i 84 aa overlap.
UNIPROT:Q7Z269 38.1% identity i 84 aa overlap.
UNIPROT:Q7Z269 37.8% identity i 82 aa overlap.
UNIPROT:Q7Z269 37.6% identity i 85 aa overlap.
UNIPROT:Q7Z269 37.6% identity i 85 aa overlap.
UNIPROT:Q7Z269 37.6% identity i 85 aa overlap.

UNIPROT:Q7Z269 37.6% identity i 85 aa overlap.
UNIPROT:Q7Z269 37.6% identity i 85 aa overlap.
UNIPROT:Q7Z269 37.3% identity i 83 aa overlap.
UNIPROT:Q7Z269 37.3% identity i 83 aa overlap.
UNIPROT:Q7Z269 36.9% identity i 84 aa overlap.
UNIPROT:Q7Z269 36.8% identity i 87 aa overlap.
UNIPROT:Q7Z163 45.1% identity i 82 aa overlap.
UNIPROT:Q7Z163 44.6% identity i 83 aa overlap.
UNIPROT:Q7Z163 44.4% identity i 81 aa overlap.
UNIPROT:Q7Z163 44.0% identity i 84 aa overlap.
UNIPROT:Q7Z163 44.0% identity i 84 aa overlap.
UNIPROT:Q7Z163 44.0% identity i 84 aa overlap.
UNIPROT:Q7Z163 43.8% identity i 80 aa overlap.
UNIPROT:Q7Z163 43.4% identity i 83 aa overlap.
UNIPROT:Q7Z163 43.4% identity i 83 aa overlap.
UNIPROT:Q7Z163 43.4% identity i 83 aa overlap.
UNIPROT:Q7Z163 43.2% identity i 81 aa overlap.
UNIPROT:Q7Z163 42.9% identity i 84 aa overlap.
UNIPROT:Q7Z163 42.7% identity i 82 aa overlap.
UNIPROT:Q7Z163 42.7% identity i 82 aa overlap.
UNIPROT:Q7Z163 42.7% identity i 82 aa overlap.
UNIPROT:Q7Z163 42.5% identity i 80 aa overlap.
UNIPROT:Q7Z163 42.2% identity i 83 aa overlap.
UNIPROT:Q7Z163 42.0% identity i 81 aa overlap.
UNIPROT:Q7Z163 42.0% identity i 81 aa overlap.
UNIPROT:Q7Z163 41.7% identity i 84 aa overlap.
UNIPROT:Q7Z163 40.7% identity i 86 aa overlap.
UNIPROT:Q7Z163 40.0% identity i 85 aa overlap.
UNIPROT:Q7Z163 39.3% identity i 89 aa overlap.
UNIPROT:Q7Z163 38.6% identity i 88 aa overlap.
UNIPROT:Q7Z163 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z163 38.4% identity i 86 aa overlap.
UNIPROT:Q7Z163 37.9% identity i 87 aa overlap.
UNIPROT:Q7Z163 37.9% identity i 87 aa overlap.
UNIPROT:Q7Z163 37.9% identity i 87 aa overlap.
UNIPROT:Q7Z163 37.9% identity i 87 aa overlap.
UNIPROT:Q7Z163 37.2% identity i 86 aa overlap.
UNIPROT:Q7Z163 37.2% identity i 86 aa overlap.
UNIPROT:Q7Z163 36.8% identity i 87 aa overlap.
UNIPROT:Q7Z163 36.6% identity i 82 aa overlap.
UNIPROT:Q7Z163 36.6% identity i 82 aa overlap.
UNIPROT:Q7Z163 36.5% identity i 85 aa overlap.
UNIPROT:Q7Z163 36.5% identity i 85 aa overlap.
UNIPROT:Q7Z163 35.7% identity i 84 aa overlap.
UNIPROT:Q7Z163 35.7% identity i 84 aa overlap.
UNIPROT:Q7Z163 35.7% identity i 84 aa overlap.
UNIPROT:Q7Z163 35.7% identity i 84 aa overlap.
UNIPROT:Q7Z163 35.6% identity i 87 aa overlap.
UNIPROT:Q7Z163 35.4% identity i 82 aa overlap.
UNIPROT:Q7M4I3 44.8% identity i 87 aa overlap.
UNIPROT:Q7M4I3 44.8% identity i 87 aa overlap.
UNIPROT:Q7M4I3 44.2% identity i 86 aa overlap.
UNIPROT:Q7M4I3 44.2% identity i 86 aa overlap.
UNIPROT:Q7M4I3 41.9% identity i 86 aa overlap.
UNIPROT:Q7M4I3 41.4% identity i 87 aa overlap.
UNIPROT:Q7M4I3 41.2% identity i 85 aa overlap.
UNIPROT:Q7M4I3 41.2% identity i 85 aa overlap.
UNIPROT:Q7M4I3 40.5% identity i 84 aa overlap.
UNIPROT:Q7M4I3 40.5% identity i 84 aa overlap.
UNIPROT:Q7M4I3 40.2% identity i 87 aa overlap.
UNIPROT:Q7M4I3 40.2% identity i 82 aa overlap.
UNIPROT:Q7M4I3 40.2% identity i 82 aa overlap.
UNIPROT:Q7M4I3 39.5% identity i 86 aa overlap.
UNIPROT:Q7M4I3 39.5% identity i 86 aa overlap.
UNIPROT:Q7M4I3 38.8% identity i 85 aa overlap.
UNIPROT:Q7M4I3 36.2% identity i 94 aa overlap.
UNIPROT:Q7M4I3 36.2% identity i 94 aa overlap.
UNIPROT:Q7M4I3 36.1% identity i 97 aa overlap.
UNIPROT:Q7M4I3 36.1% identity i 97 aa overlap.
UNIPROT:Q7M4I3 35.4% identity i 96 aa overlap.
UNIPROT:P49276 42.7% identity i 82 aa overlap.
UNIPROT:P49276 42.7% identity i 82 aa overlap.
UNIPROT:P49276 42.2% identity i 83 aa overlap.
UNIPROT:P49276 42.2% identity i 83 aa overlap.
UNIPROT:P49276 42.2% identity i 83 aa overlap.
UNIPROT:P49276 42.0% identity i 81 aa overlap.
UNIPROT:P49276 41.7% identity i 84 aa overlap.
UNIPROT:P49276 41.5% identity i 82 aa overlap.
UNIPROT:P49276 41.2% identity i 80 aa overlap.
UNIPROT:P49276 41.0% identity i 83 aa overlap.
UNIPROT:P49276 40.7% identity i 81 aa overlap.
UNIPROT:P49276 40.7% identity i 81 aa overlap.
UNIPROT:P49276 40.2% identity i 82 aa overlap.
UNIPROT:P49276 40.0% identity i 85 aa overlap.
UNIPROT:P49275 48.9% identity i 90 aa overlap.
UNIPROT:P49275 48.8% identity i 82 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.3% identity i 87 aa overlap.

UNIPROT:P49275 48.3% identity i 87 aa overlap.
UNIPROT:P49275 48.2% identity i 85 aa overlap.
UNIPROT:P49275 48.2% identity i 85 aa overlap.
UNIPROT:P49275 48.2% identity i 85 aa overlap.
UNIPROT:P49275 47.7% identity i 86 aa overlap.
UNIPROT:P49275 47.7% identity i 86 aa overlap.
UNIPROT:P49275 47.7% identity i 86 aa overlap.
UNIPROT:P49275 47.6% identity i 84 aa overlap.
UNIPROT:P49275 47.2% identity i 89 aa overlap.
UNIPROT:P49275 47.2% identity i 89 aa overlap.
UNIPROT:P49275 47.1% identity i 85 aa overlap.
UNIPROT:P49275 47.0% identity i 83 aa overlap.
UNIPROT:P49275 46.6% identity i 88 aa overlap.
UNIPROT:P49275 46.1% identity i 89 aa overlap.
UNIPROT:P49275 46.0% identity i 87 aa overlap.
UNIPROT:P49275 45.9% identity i 85 aa overlap.
UNIPROT:P49275 45.9% identity i 85 aa overlap.
UNIPROT:P49275 45.8% identity i 83 aa overlap.
UNIPROT:P49275 45.5% identity i 88 aa overlap.
UNIPROT:P49275 45.5% identity i 88 aa overlap.
UNIPROT:P49275 45.5% identity i 88 aa overlap.
UNIPROT:P49275 45.3% identity i 86 aa overlap.
UNIPROT:P49275 45.2% identity i 84 aa overlap.
UNIPROT:P49275 45.2% identity i 84 aa overlap.
UNIPROT:P49275 45.2% identity i 84 aa overlap.
UNIPROT:P49275 45.1% identity i 82 aa overlap.
UNIPROT:P49275 44.8% identity i 87 aa overlap.
UNIPROT:P49275 44.6% identity i 83 aa overlap.
UNIPROT:P49275 44.6% identity i 83 aa overlap.
UNIPROT:P49275 44.4% identity i 81 aa overlap.
UNIPROT:P49275 44.2% identity i 86 aa overlap.
UNIPROT:P49275 43.9% identity i 82 aa overlap.
UNIPROT:P49275 43.8% identity i 80 aa overlap.
UNIPROT:P49275 43.5% identity i 85 aa overlap.
UNIPROT:P49275 36.9% identity i 84 aa overlap.
UNIPROT:P49275 36.8% identity i 87 aa overlap.
UNIPROT:P49275 36.1% identity i 83 aa overlap.
UNIPROT:P49275 36.0% identity i 86 aa overlap.
UNIPROT:P49275 36.0% identity i 86 aa overlap.
UNIPROT:P49275 36.0% identity i 86 aa overlap.
UNIPROT:P49275 36.0% identity i 86 aa overlap.
UNIPROT:P49275 35.6% identity i 87 aa overlap.
UNIPROT:P49275 35.3% identity i 85 aa overlap.
UNIPROT:P49275 35.2% identity i 88 aa overlap.
UNIPROT:P49275 35.2% identity i 88 aa overlap.
UNIPROT:P39675 50.0% identity i 90 aa overlap.
UNIPROT:P39675 50.0% identity i 86 aa overlap.
UNIPROT:P39675 50.0% identity i 82 aa overlap.
UNIPROT:P39675 49.4% identity i 89 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 87 aa overlap.
UNIPROT:P39675 49.4% identity i 85 aa overlap.
UNIPROT:P39675 49.4% identity i 85 aa overlap.
UNIPROT:P39675 49.4% identity i 85 aa overlap.
UNIPROT:P39675 48.8% identity i 86 aa overlap.
UNIPROT:P39675 48.8% identity i 86 aa overlap.
UNIPROT:P39675 48.8% identity i 86 aa overlap.
UNIPROT:P39675 48.8% identity i 84 aa overlap.
UNIPROT:P39675 48.3% identity i 89 aa overlap.
UNIPROT:P39675 48.2% identity i 85 aa overlap.
UNIPROT:P39675 48.2% identity i 83 aa overlap.
UNIPROT:P39675 47.7% identity i 88 aa overlap.
UNIPROT:P39675 47.2% identity i 89 aa overlap.
UNIPROT:P39675 47.1% identity i 85 aa overlap.
UNIPROT:P39675 47.1% identity i 85 aa overlap.
UNIPROT:P39675 47.0% identity i 83 aa overlap.
UNIPROT:P39675 47.0% identity i 83 aa overlap.
UNIPROT:P39675 46.9% identity i 81 aa overlap.
UNIPROT:P39675 46.9% identity i 81 aa overlap.
UNIPROT:P39675 46.6% identity i 88 aa overlap.
UNIPROT:P39675 46.4% identity i 84 aa overlap.
UNIPROT:P39675 46.3% identity i 82 aa overlap.
UNIPROT:P39675 46.0% identity i 87 aa overlap.
UNIPROT:P39675 45.8% identity i 83 aa overlap.
UNIPROT:P39675 45.7% identity i 81 aa overlap.
UNIPROT:P39675 45.3% identity i 86 aa overlap.
UNIPROT:P39675 45.0% identity i 80 aa overlap.
UNIPROT:P39675 44.7% identity i 85 aa overlap.
UNIPROT:P39675 44.3% identity i 88 aa overlap.
UNIPROT:P39675 43.7% identity i 87 aa overlap.
UNIPROT:P39675 35.7% identity i 84 aa overlap.
UNIPROT:P09582 39.0% identity i 82 aa overlap.
UNIPROT:P09582 38.3% identity i 81 aa overlap.
UNIPROT:P09582 38.3% identity i 81 aa overlap.
UNIPROT:P09582 37.5% identity i 80 aa overlap.

UNIPROT:P09582 37.5% identity i 80 aa overlap.
UNIPROT:P09582 37.0% identity i 81 aa overlap.
UNIPROT:P09582 37.0% identity i 81 aa overlap.
UNIPROT:P09582 36.2% identity i 80 aa overlap.
UNIPROT:O97370 51.1% identity i 90 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 87 aa overlap.
UNIPROT:O97370 50.6% identity i 85 aa overlap.
UNIPROT:O97370 50.0% identity i 88 aa overlap.
UNIPROT:O97370 50.0% identity i 88 aa overlap.
UNIPROT:O97370 50.0% identity i 88 aa overlap.
UNIPROT:O97370 50.0% identity i 86 aa overlap.
UNIPROT:O97370 50.0% identity i 86 aa overlap.
UNIPROT:O97370 50.0% identity i 86 aa overlap.
UNIPROT:O97370 50.0% identity i 84 aa overlap.
UNIPROT:O97370 49.4% identity i 89 aa overlap.
UNIPROT:O97370 49.4% identity i 89 aa overlap.
UNIPROT:O97370 49.4% identity i 89 aa overlap.
UNIPROT:O97370 49.4% identity i 87 aa overlap.
UNIPROT:O97370 49.4% identity i 87 aa overlap.
UNIPROT:O97370 49.4% identity i 85 aa overlap.
UNIPROT:O97370 49.4% identity i 85 aa overlap.
UNIPROT:O97370 49.4% identity i 83 aa overlap.
UNIPROT:O97370 48.3% identity i 89 aa overlap.
UNIPROT:O97370 48.3% identity i 89 aa overlap.
UNIPROT:O97370 47.7% identity i 88 aa overlap.
UNIPROT:O97370 47.1% identity i 87 aa overlap.
UNIPROT:O97370 46.9% identity i 81 aa overlap.
UNIPROT:O97370 46.5% identity i 86 aa overlap.
UNIPROT:O97370 45.9% identity i 85 aa overlap.
UNIPROT:O97370 45.9% identity i 85 aa overlap.
UNIPROT:O97370 45.8% identity i 83 aa overlap.
UNIPROT:O97370 45.8% identity i 83 aa overlap.
UNIPROT:O97370 45.5% identity i 88 aa overlap.
UNIPROT:O97370 45.5% identity i 88 aa overlap.
UNIPROT:O97370 45.3% identity i 86 aa overlap.
UNIPROT:O97370 44.8% identity i 87 aa overlap.
UNIPROT:O97370 44.7% identity i 85 aa overlap.
UNIPROT:O97370 44.6% identity i 83 aa overlap.
UNIPROT:O97370 44.0% identity i 84 aa overlap.
UNIPROT:O97370 43.9% identity i 82 aa overlap.
UNIPROT:O97370 41.9% identity i 86 aa overlap.
UNIPROT:O97370 41.2% identity i 85 aa overlap.
UNIPROT:O97370 40.5% identity i 84 aa overlap.
UNIPROT:O97370 39.8% identity i 83 aa overlap.
UNIPROT:O97370 39.0% identity i 82 aa overlap.
UNIPROT:O97370 38.3% identity i 81 aa overlap.
UNIPROT:O97370 37.5% identity i 80 aa overlap.
UNIPROT:O97370 35.6% identity i 87 aa overlap.
UNIPROT:O97370 35.6% identity i 87 aa overlap.
UNIPROT:C6ZDB5 51.9% identity i 81 aa overlap.
UNIPROT:C6ZDB5 51.9% identity i 81 aa overlap.
UNIPROT:C6ZDB5 50.6% identity i 83 aa overlap.
UNIPROT:C6ZDB5 50.6% identity i 83 aa overlap.
UNIPROT:C6ZDB5 50.6% identity i 83 aa overlap.
UNIPROT:C6ZDB5 50.6% identity i 83 aa overlap.
UNIPROT:C6ZDB5 50.0% identity i 86 aa overlap.
UNIPROT:C6ZDB5 50.0% identity i 84 aa overlap.
UNIPROT:C6ZDB5 50.0% identity i 84 aa overlap.
UNIPROT:C6ZDB5 50.0% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 86 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 86 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 48.8% identity i 80 aa overlap.
UNIPROT:C6ZDB5 48.2% identity i 85 aa overlap.
UNIPROT:C6ZDB5 48.2% identity i 83 aa overlap.
UNIPROT:C6ZDB5 48.2% identity i 83 aa overlap.
UNIPROT:C6ZDB5 48.2% identity i 83 aa overlap.
UNIPROT:C6ZDB5 48.1% identity i 81 aa overlap.
UNIPROT:C6ZDB5 48.1% identity i 81 aa overlap.
UNIPROT:C6ZDB5 47.7% identity i 86 aa overlap.
UNIPROT:C6ZDB5 47.7% identity i 86 aa overlap.
UNIPROT:C6ZDB5 47.6% identity i 84 aa overlap.
UNIPROT:C6ZDB5 47.6% identity i 84 aa overlap.
UNIPROT:C6ZDB5 47.6% identity i 82 aa overlap.
UNIPROT:C6ZDB5 47.5% identity i 80 aa overlap.
UNIPROT:C6ZDB5 47.5% identity i 80 aa overlap.
UNIPROT:C6ZDB5 47.5% identity i 80 aa overlap.
UNIPROT:C6ZDB5 46.5% identity i 86 aa overlap.
UNIPROT:C6ZDB5 45.2% identity i 84 aa overlap.
UNIPROT:C6ZDB5 44.7% identity i 85 aa overlap.
UNIPROT:C6ZDB5 44.7% identity i 85 aa overlap.
UNIPROT:C6ZDB5 38.8% identity i 80 aa overlap.
UNIPROT:C6ZDB5 38.6% identity i 83 aa overlap.

```
UNIPROT:C6ZDB5 38.3% identity i 81 aa overlap.
UNIPROT:C6ZDB5 38.3% identity i 81 aa overlap.
UNIPROT:C6ZDB5 37.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 37.8% identity i 82 aa overlap.
UNIPROT:C6ZDB5 37.5% identity i 80 aa overlap.
UNIPROT:C6ZDB5 37.3% identity i 83 aa overlap.
UNIPROT:C6ZDB5 37.3% identity i 83 aa overlap.
UNIPROT:C6ZDB5 37.3% identity i 83 aa overlap.
UNIPROT:C6ZDB5 37.3% identity i 83 aa overlap.
UNIPROT:C6ZDB5 37.3% identity i 83 aa overlap.
UNIPROT:C6ZDB5 37.0% identity i 81 aa overlap.
UNIPROT:C6ZDB5 37.0% identity i 81 aa overlap.
UNIPROT:C6ZDB5 36.6% identity i 82 aa overlap.
UNIPROT:C6ZDB5 35.8% identity i 81 aa overlap.
UNIPROT:C6ZDB5 35.0% identity i 80 aa overlap.
```

(blank=No matches found) Count of significant hits described in text based on identity > 35%.

G.2 35% or larger identity over any 80 amino acid window (with scaling)

```
UNIPROT:Q8I916 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
UNIPROT:Q8I916 58.2% identity i 79 aa overlap, scaled to 57.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 51.9% identity i 79 aa overlap, scaled to 51.3% identity i 80 aa overlap
UNIPROT:Q8I916 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
UNIPROT:Q8I916 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
UNIPROT:Q8I916 50.6% identity i 77 aa overlap, scaled to 48.7% identity i 80 aa overlap
UNIPROT:C6ZDB5 48.7% identity i 78 aa overlap, scaled to 47.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 48.7% identity i 78 aa overlap, scaled to 47.5% identity i 80 aa overlap
UNIPROT:Q8I916 52.1% identity i 71 aa overlap, scaled to 46.3% identity i 80 aa overlap
UNIPROT:C6ZDB5 47.4% identity i 78 aa overlap, scaled to 46.3% identity i 80 aa overlap
UNIPROT:C6ZDB5 48.7% identity i 76 aa overlap, scaled to 46.2% identity i 80 aa overlap
UNIPROT:C6ZDB5 46.8% identity i 79 aa overlap, scaled to 46.2% identity i 80 aa overlap
UNIPROT:C6ZDB5 46.8% identity i 79 aa overlap, scaled to 46.2% identity i 80 aa overlap
UNIPROT:Q7Z163 48.0% identity i 75 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 48.0% identity i 75 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 45.6% identity i 79 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 45.6% identity i 79 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q7Z163 45.6% identity i 79 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:C6ZDB5 46.8% identity i 77 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:C6ZDB5 46.2% identity i 78 aa overlap, scaled to 45.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.1% identity i 76 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.1% identity i 76 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.9% identity i 78 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.9% identity i 78 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.9% identity i 78 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.9% identity i 78 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.9% identity i 78 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:P39675 44.3% identity i 79 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:C6ZDB5 45.5% identity i 77 aa overlap, scaled to 43.8% identity i 80 aa overlap
UNIPROT:Q7Z163 47.3% identity i 74 aa overlap, scaled to 43.7% identity i 80 aa overlap
UNIPROT:Q8MWR4 45.3% identity i 75 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49276 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:P49275 43.0% identity i 79 aa overlap, scaled to 42.5% identity i 80 aa overlap
```

```
UNIPROT:P39675 43.6% identity i 78 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 44.7% identity i 76 aa overlap, scaled to 42.5% identity i 80 aa overlap
UNIPROT:Q8I916 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
UNIPROT:P49275 42.3% identity i 78 aa overlap, scaled to 41.3% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7Z163 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7Z163 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7Z163 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7Z163 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7Z163 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q7M4I3 44.0% identity i 75 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:P49276 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:P49276 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:P49276 43.4% identity i 76 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:P39675 42.9% identity i 77 aa overlap, scaled to 41.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 43.8% identity i 73 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.7% identity i 75 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8I916 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8I916 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.4% identity i 69 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q7Z163 46.4% identity i 69 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q7Z163 43.8% identity i 73 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q7Z163 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q7M4I3 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:P49276 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:P49276 43.2% identity i 74 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:P49276 41.0% identity i 78 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:P49275 41.6% identity i 77 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:P39675 42.1% identity i 76 aa overlap, scaled to 40.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 44.3% identity i 70 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.7% identity i 71 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8I916 41.9% identity i 74 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q7Z269 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q7Z269 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q7Z269 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q7Z269 39.2% identity i 79 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q7Z163 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 43.1% identity i 72 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 77 aa overlap, scaled to 38.8% identity i 80 aa overlap
UNIPROT:Q8MWR4 45.6% identity i 68 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q8MWR4 45.6% identity i 68 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:P49275 40.8% identity i 76 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:P39675 41.3% identity i 75 aa overlap, scaled to 38.7% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.9% identity i 64 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.9% identity i 64 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 45.5% identity i 66 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 45.5% identity i 66 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 42.3% identity i 71 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
```

```
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.7% identity i 72 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MQS8 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q7Z163 42.3% identity i 71 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q7M4I3 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P49276 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P49276 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P49276 39.5% identity i 76 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P49275 40.0% identity i 75 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P39675 40.5% identity i 74 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P09582 39.0% identity i 77 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P09582 39.0% identity i 77 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P09582 39.0% identity i 77 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:P09582 39.0% identity i 77 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.5% identity i 69 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:C6ZDB5 38.0% identity i 79 aa overlap, scaled to 37.5% identity i 80 aa overlap
UNIPROT:Q8MWR4 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8I916 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7Z163 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 42.0% identity i 69 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q7M4I3 41.4% identity i 70 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49276 40.3% identity i 72 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49275 38.2% identity i 76 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49275 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49275 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49275 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P49275 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 38.7% identity i 75 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 38.2% identity i 76 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:P09582 36.7% identity i 79 aa overlap, scaled to 36.3% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.8% identity i 62 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.8% identity i 62 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 46.8% identity i 62 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q8MQS8 42.6% identity i 68 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q7M4I3 42.6% identity i 68 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q7M4I3 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49276 39.7% identity i 73 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49276 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49276 37.2% identity i 78 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 39.2% identity i 74 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:P49275 37.7% identity i 77 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.9% identity i 66 aa overlap, scaled to 36.2% identity i 80 aa overlap
UNIPROT:Q8MWR4 49.1% identity i 57 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 49.1% identity i 57 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 49.1% identity i 57 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MWR4 40.6% identity i 69 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
```

```
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q8MQS8 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q7Z163 40.6% identity i 69 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:Q7M4I3 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P49276 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P49275 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P49275 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 39.4% identity i 71 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P39675 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 38.9% identity i 72 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 37.8% identity i 74 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:P09582 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:O97370 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:O97370 36.4% identity i 77 aa overlap, scaled to 35.0% identity i 80 aa overlap
UNIPROT:C6ZDB5 43.1% identity i 65 aa overlap, scaled to 35.0% identity i 80 aa overlap
```

(blank=No matches found) Count of significant hits described in text based on scaled identity > 35%.

G.3 Identities calculated from Needleman-Wuncsh alignment

Matches ≥ 10% are shown

```
Q8I916                                                            102/268    =  38.1%
P49275                                                            93/263     =  35.4%
Q7M4I3                                                            87/250     =  34.8%
O97370                                                            91/262     =  34.7%
P39675                                                            91/265     =  34.3%
Q7Z163                                                            88/280     =  31.4%
C6ZDB5                                                            88/287     =  30.7%
P49276                                                            81/290     =  27.9%
Q8MWR4                                                            80/289     =  27.7%
P09582                                                            72/262     =  27.5%
Q7Z269                                                            74/288     =  25.7%
Q9FSG7                                                            58/274     =  21.2%
P10968                                                            53/264     =  20.1%
Q8MQS8                                                            81/411     =  19.7%
Q9FS79                                                            55/293     =  18.8%
P26987                                                            43/235     =  18.3%
Q1HHN7                                                            51/287     =  17.8%
Q68KJ8                                                            46/265     =  17.4%
Q9Y8B8                                                            43/250     =  17.2%
```

Q647G4	40/234	=	17.1%
P12548	43/252	=	17.1%
O04298	42/245	=	17.1%
O04298	42/245	=	17.1%
O04298	42/245	=	17.1%
O04298	42/245	=	17.1%
O04298	42/245	=	17.1%
O93969	41/241	=	17.0%
O60024	58/341	=	17.0%
P84527	43/258	=	16.7%
O43099	40/240	=	16.7%
D7F1Q0	50/299	=	16.7%
D4IHC0	41/245	=	16.7%
D2K835	47/281	=	16.7%
P84298	42/258	=	16.3%
P12549	42/258	=	16.3%
A4FSH5	42/260	=	16.2%
P12550	39/243	=	16.0%
P35017	45/283	=	15.9%
Q39453	39/247	=	15.8%
Q8T5G9	44/280	=	15.7%
Q84T91	38/242	=	15.7%
Q9STB5	44/286	=	15.4%
B2BDZ8	45/293	=	15.4%
P00630	40/262	=	15.3%
P50694	47/309	=	15.2%
Q5IRB2	33/218	=	15.1%
P02226	38/253	=	15.0%
Q9FSJ2	41/276	=	14.9%
Q9Y750	55/371	=	14.8%
P43186	36/243	=	14.8%
P38949	36/244	=	14.8%
P38949	36/244	=	14.8%
D2TGC3	33/223	=	14.8%
C6GKU4	33/223	=	14.8%
Q92450	44/299	=	14.7%
Q6W8Q2	44/300	=	14.7%
P82971	35/238	=	14.7%
P00698	37/252	=	14.7%
P02221	37/254	=	14.6%
P02221	37/254	=	14.6%
C6GKU3	32/219	=	14.6%
Q39454	36/248	=	14.5%
O42799	48/330	=	14.5%
Q7X9Q5	33/230	=	14.3%
Q7M4I5	33/231	=	14.3%
Q5GQ85	36/251	=	14.3%
P38950	35/244	=	14.3%
Q9M4S5	58/408	=	14.2%
Q9LD79	34/239	=	14.2%
Q9LD79	34/239	=	14.2%
Q9FPK4	36/253	=	14.2%
Q9FPK3	36/253	=	14.2%
Q96503	34/239	=	14.2%
Q96379	34/239	=	14.2%
Q7XYF2	31/218	=	14.2%
E7BQV3	39/274	=	14.2%
E2GL17	35/246	=	14.2%

Q647G5	36/255	=	14.1%
P83326	38/270	=	14.1%
O23972	42/297	=	14.1%
P81294	57/408	=	14.0%
P81294	57/408	=	14.0%
P16348	39/279	=	14.0%
P15476	58/413	=	14.0%
D1YSM5	35/250	=	14.0%
C7C4X1	51/363	=	14.0%
Q9M4S6	57/411	=	13.9%
Q9M4S3	57/411	=	13.9%
Q8H2B9	34/245	=	13.9%
P86360	33/238	=	13.9%
Q9UW00	31/225	=	13.8%
Q96367	37/269	=	13.8%
P93680	49/354	=	13.8%
A9YUH6	30/218	=	13.8%
Q9NH75	32/234	=	13.7%
Q9NH75	32/234	=	13.7%
Q12547	59/431	=	13.7%
P81651	31/227	=	13.7%
O93972	38/277	=	13.7%
E1A683	35/255	=	13.7%
Q9M4S2	55/406	=	13.5%
Q96378	34/252	=	13.5%
Q96377	34/252	=	13.5%
P02223	33/245	=	13.5%
B6RQS0	34/252	=	13.5%
B6RQR9	34/252	=	13.5%
B6RQR8	34/252	=	13.5%
B0L807	57/421	=	13.5%
Q9LLT2	55/409	=	13.4%
Q9LLT1	55/409	=	13.4%
Q96371	36/269	=	13.4%
Q96365	36/269	=	13.4%
B6CQT5	43/322	=	13.4%
A5I874	29/217	=	13.4%
Q947S6	46/346	=	13.3%
Q947S4	46/346	=	13.3%
P00785	56/421	=	13.3%
B7SNI3	34/255	=	13.3%
Q7Y1X1	55/418	=	13.2%
P35780	40/302	=	13.2%
H2DF86	47/357	=	13.2%
Q9XG86	59/452	=	13.1%
B6RQR7	33/252	=	13.1%
B6RQR6	33/252	=	13.1%
Q9SCG9	50/385	=	13.0%
Q1M2P1	33/254	=	13.0%
B6CQT3	42/324	=	13.0%
P45431	32/249	=	12.9%
P43184	32/249	=	12.9%
P43176	32/249	=	12.9%
P81295	41/321	=	12.8%
P79085	32/250	=	12.8%
P42059	38/297	=	12.8%
P42037	31/243	=	12.8%
E0XKJ8	42/328	=	12.8%

B3GM11	56/437	=	12.8%
Q90YK9	30/236	=	12.7%
Q6H9K0	55/433	=	12.7%
O74682	57/449	=	12.7%
O42800	57/449	=	12.7%
Q8VXF1	47/373	=	12.6%
Q01940	53/421	=	12.6%
Q9URR2	53/424	=	12.5%
Q9NBA6	43/343	=	12.5%
Q9M4S4	52/416	=	12.5%
Q96501	32/258	=	12.4%
Q96380	32/258	=	12.4%
Q8WQK5	29/234	=	12.4%
Q8TFM9	30/241	=	12.4%
Q32ZM1	46/370	=	12.4%
P42039	30/242	=	12.4%
Q9Y7F6	36/292	=	12.3%
P86432	29/235	=	12.3%
C6GKU5	27/219	=	12.3%
Q9U5P7	30/247	=	12.1%
Q95PM9	45/373	=	12.1%
Q8S4P9	59/488	=	12.1%
Q68KK0	44/365	=	12.1%
Q96382	31/259	=	12.0%
Q96381	31/259	=	12.0%
Q6Q128	30/250	=	12.0%
P54958	47/391	=	12.0%
D5LGB3	52/434	=	12.0%
Q9UUZ6	29/244	=	11.9%
Q9NH66	43/362	=	11.9%
Q94G86	59/494	=	11.9%
Q8SAE7	29/244	=	11.9%
O04701	40/335	=	11.9%
E9RFF3	45/379	=	11.9%
Q8VX12	27/229	=	11.8%
Q84V39	29/246	=	11.8%
Q58A71	43/363	=	11.8%
P85205	27/228	=	11.8%
P83377	35/296	=	11.8%
P18632	51/433	=	11.8%
P18632	51/433	=	11.8%
P18632	51/433	=	11.8%
P16311	43/363	=	11.8%
P02622	29/246	=	11.8%
A1YW13	43/363	=	11.8%
A1YW12	43/363	=	11.8%
Q9NFQ4	27/230	=	11.7%
O60025	35/298	=	11.7%
A1YW11	43/367	=	11.7%
Q7XYF3	25/216	=	11.6%
Q69CS3	39/335	=	11.6%
Q69CS2	39/335	=	11.6%
Q69CS2	39/335	=	11.6%
P52407	50/430	=	11.6%
P12547	50/431	=	11.6%
P87184	60/520	=	11.5%
O81341	43/374	=	11.5%
Q8RUR1	49/430	=	11.4%

Q8RUR1	49/430	=	11.4%
P28296	49/428	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
P08176	42/370	=	11.4%
Q9TZZ2	28/248	=	11.3%
Q9TZZ2	28/248	=	11.3%
P92918	28/248	=	11.3%
P50344	27/239	=	11.3%
P14948	26/231	=	11.3%
P02231	30/265	=	11.3%
Q8JIU1	26/233	=	11.2%
Q40967	40/358	=	11.2%
P92919	37/329	=	11.2%
P43214	27/241	=	11.2%
P42058	34/304	=	11.2%
O02380	29/259	=	11.2%
D3W147	28/251	=	11.2%
Q9ZP03	39/350	=	11.1%
Q9UW97	51/461	=	11.1%
Q2F5T5	42/377	=	11.1%
Q14QT4	26/235	=	11.1%
B2ZPG7	44/397	=	11.1%
Q9XHP2	31/282	=	11.0%
Q84UI1	49/444	=	11.0%
Q08407	29/263	=	11.0%
Q08407	29/263	=	11.0%
Q08407	29/263	=	11.0%
Q08407	29/263	=	11.0%
P82534	25/227	=	11.0%
A9YUH5	49/444	=	11.0%
A0AT29	28/254	=	11.0%
Q9ATH2	26/239	=	10.9%
Q6EV47	27/247	=	10.9%
P85894	25/229	=	10.9%
P81402	25/229	=	10.9%
Q9LEJ0	53/489	=	10.8%
Q84UI0	49/455	=	10.8%
Q2VST0	42/390	=	10.8%
P40108	55/508	=	10.8%
Q9M5X8	27/253	=	10.7%
Q6VT83	29/271	=	10.7%
O18873	30/281	=	10.7%
Q9ARG0	38/360	=	10.6%
Q43680	37/350	=	10.6%
P43185	29/273	=	10.6%
P43180	29/273	=	10.6%
P43177	29/273	=	10.6%
P14292	29/274	=	10.6%

Q9M5X6	26/247	=	10.5%
Q28133	30/285	=	10.5%
Q28133	30/285	=	10.5%
Q28133	30/285	=	10.5%
Q1M2P2	27/256	=	10.5%
P56578	31/295	=	10.5%
P15494	29/277	=	10.5%
P15494	29/277	=	10.5%
O24282	27/257	=	10.5%
C4MGH1	24/229	=	10.5%
Q96385	46/442	=	10.4%
Q96368	30/289	=	10.4%
Q6R4B4	35/336	=	10.4%
Q45W87	27/260	=	10.4%
Q40960	40/386	=	10.4%
P11828	55/530	=	10.4%
D3W146	25/240	=	10.4%
C4MGH0	26/249	=	10.4%
B6CG41	24/231	=	10.4%
Q96370	28/273	=	10.3%
Q84ZX5	24/233	=	10.3%
Q49KL9	25/243	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q3HWZ5	39/379	=	10.3%
Q1RQI9	24/234	=	10.3%
P81370	33/321	=	10.3%
E1XUL9	45/437	=	10.3%
C7T6L6	39/379	=	10.3%
P28744	45/442	=	10.2%
P10529	52/510	=	10.2%
P10529	52/510	=	10.2%
O04404	29/283	=	10.2%
B9W4C2	23/225	=	10.2%
B5DGQ7	50/490	=	10.2%
Q9T0P1	26/258	=	10.1%
Q96366	28/277	=	10.1%
Q8LGR0	28/276	=	10.1%
Q702P0	46/456	=	10.1%
P49372	28/276	=	10.1%
P27760	48/475	=	10.1%
O04403	24/238	=	10.1%
Q9U6R6	28/279	=	10.0%
Q9SC98	33/330	=	10.0%
Q8NKF4	44/442	=	10.0%
Q8GZP6	48/479	=	10.0%
Q8GT41	31/309	=	10.0%
Q870B9	48/479	=	10.0%
Q4PLT6	24/241	=	10.0%
Q0Z8V0	26/259	=	10.0%

```
P55958                                                    26/261     =  10.0%
P14946                                                    33/330     =  10.0%
P14946                                                    33/330     =  10.0%
O93970                                                    29/291     =  10.0%
E1XUL3                                                    48/480     =  10.0%
```

–

[redacted]

May 15, 2014

Toxicity and Allergen Risk Assessment report

novozymes®
Rethink Tomorrow

Protease produced by WTY939-8-3

Assessment of sequence homology to known toxins

The homology between protease from WTY939-8-3 and known toxins was assessed on the basis of the information present in the UNIPROT database (24-Jan-2013). This database contains entries from SWISSPROT and TREMBL. The homology among the emerging entries did not exceed 30% indicating that the homology to any toxin sequence in this database is random.

Sequence homology assessment:

Analysis of protease from WTY939-8-3 according to the EFSA scientific opinion recommended allergen analysis using allergen on-line and allergen.org databases, identified 13 mite (Dermatophagoides, Blomia, Tyrophagus and Euroglyphus spp.) related allergens, 3 insect (Polistes (wasp) and Apis (bee) spp.) venum related allergens and 1 canin allergen having an identity with protease produced by strain WTY939-8-3 above the treshold of 35%.

The mite related allergens (e.g. Blo t 3, Der f 3, Der p 3, Der f 6, Tyr p 3) were revealed to have up to - 60.2 % (unscaled) and 57.5% (scaled) identity with protease from WTY939-8-3 over 80 amino acids windows using the allergen on-line and allergen.org databases. The venum allergens (upto 44.8% (43.8% (scaled)) and canin allergen (39.0% (37.5% (scaled)) revealed less identity.

Similarities with other allergens were below 35%. Since it is generally accepted that proteins with such a low identity rarely share epitopes they were not considered in this report (Pearson, 2000; Aalberse et al., 2001; Hileman et al., 2002; Ladics et al., 2007).

Allergen risk assessment:

Mite allergens well recognized and a variety of these allergens has been characterized in great detail. They are well-known to trigger respiratory sensitization and asthma. Prevalences of 25% to 30% were reported (Bessot and Pauli, 2011; http://www.aaaai.org/ask-the-expert/house-dust-mite-allergy-in-united-states.aspx; Sönmez and Caliskan, 2009).

Respiratory allergy:

The analysis suggests similarities between protease from WTY939-8-3 and known respiratory allergens. The risk for respiratory sensitization and for acquiring asthma associated with the handling of enzymes has been recognized for many years, and has resulted in clearly described measures for assuring occupational safety.

Food allergy:

There is compelling evidence that vast majority of adults affected by food-induced occupational asthma can ingest the allergen without symptoms, suggesting that inhallation is not likely to result in food allergy (Brisman, 2002; Armentia et al., 2009).

This is backed up by a study using the generally recognized guidelines for food allergy diagnosis (skin prick test, specific serum IgE and DBPCFC). This study included 400 patients with diagnosed allergy to one or more of inhalation allergens, food allergens, bee or wasp allergens. The study concluded that no cases of IgE-mediated food allergy to commercial enzymes (incl. proteases) could be found. There were further no indications of cross-reactivity between the tested enzymes used in food and the main known allergens represented by the patients included in the study (Bindslev-Jensen et al., 2006).

Conclusion:

On the basis of the available evidence it can be concluded that oral intake of protease from WTY939-8-3 is not anticipated to pose any food allergenic concern, and that the current measures for assuring occupational safety are sufficient.

References:

- Aalberse, R., C., Akkerdaas, J., van Ree, R. 2001. Allergy 56; 478-490
- Armentia, A., Díaz_Perales, A., Castrodeza, J., Dueñas-Laita, A., Palacin, A., Fernández S. 2009. Allergol. Immunopathol. 37; 203-204
- Bessot, J., C., Pauli, G. 2011. Eur. Ann. Allergy Clin. Immunol. 43; 141-156
- Bindslev-Jensen, C., Skov, P., S., Roggen, E., L., Hvass, P., Brinch, D., S. 2006. Food and Chem. Toxicol. 44; 1909-1915.
- Brisman, J. 2002. Occup. Environ. Med. 59; 498-502.
- Hileman, R., E., Silvanovitch, A., Goodman, R., E., Rice, E., A., Holleschak, G., Ashwood, J.,D., Hefle, S., L. 2002. Int. Arch. Allergy Immunol. 128; 280-291.
- Ladics, G., S., Bannon, G., A., Silvanovitch, A., Cressman, R., F. 2007. Mol. Nutr. Food Res. 51; 985-998
- Pearson, W., R. 2000. Methods Mol. Biol. 132; 185-219

- Sander, I., Raulf-Heimsoth, M., Siethoff, C., Lohaus, C., Meyer, H., E., Baur, X. 1998. J. Allergy Clin. Immunol. 102; 256-264.
- Sönmez Tamer, G., Caliskan, S. 2009. Mikrobiyol. Bul. 43; 309-312
- Quirce, S., Fernández-Nieto, M., Bartolomé, B., Bombín, C., Cuevas, M., Sastre, J. 2002. Ann. Allergy Asthma Immunol. 89; 197-202.

Toxicology & Product Safety

Date : 31 October 2013
Ref.: TrGQ/NiB
File : 2013-15851

SUMMARY OF TOXICITY DATA

SP387/TL1

Authors :
[redacted]

Issued by :
Toxicology
Novozymes A/S
Krogshøjvej 36
2880 Bagsværd
Denmark

CONTENTS

1. ABSTRACT

SP387/TL1 is a liquid microbial enzyme concentrate. The present summary covers the toxicological studies relevant for the evaluation of SP387/TL1 when used as a processing aid in the production of food products.

All studies were carried out in accordance with current EU and OECD guidelines and in compliance with the OECD principles of Good Laboratory Practice (GLP). The studies were carried out at Novozymes in Denmark, Covance in UK and LAB Scantox in Denmark during the period April 2007 to August 2011.

The main conclusions of the safety studies can be summarized as below:

- 13 weeks of oral (gavage) treatment of rats with SP387/TL1 caused no dose related findings. Therefore the highest dose level 581 mg TOS/kg bw/day was considered the NOAEL of the study.

- In order to establish a higher NOAEL than obtained in the previous 13 week toxicity study, a 25 day oral gavage study in rats was performed as a *bridging study* on a more concentrated batch of SP387/TL1 and with a higher dose volume (10 mL/kg bw instead of 5 mL/kg bw) than in the previous 13 week toxicity study. No treatment related toxicological effects were seen at any dose level. Therefore, the highest dose level, 3605 mg TOS/kg bw/day, was considered the NOAEL of the study. This NOAEL is considered the overall NOAEL for the two general toxicity studies.

- SP387/TL1 gave no indication of mutagenic activity when tested in the bacterial reverse mutation assay in the presence or absence of S9 mix.

- SP387/TL1 did not induce chromosome aberrations in cultured human blood lymphocytes when assessed in the chromosome aberration assay.

2. TEST SUBSTANCE

2.1 General information on the test material

SP387/TL1 belongs to the peptidase family S1 and is capable of hydrolysing proteins at arginine and lysine residues.

SP387/TL1, batch PPF 26813 and batch PPF 32126, are the liquid enzyme concentrates used as the test substances in the present toxicological program. Batch PPF 26813 is a mixture of three identically produced fermentation sub-batches, recovered by purification/concentration of the fermented culture broth according to the same procedures as are used for the production of commercial SP387/TL1 preparations, except that formulation/standardization is omitted. Batch PPF 32126 was prepared by up-concentration by evaporation of batch PPF 26813.

The test substances do not contain the production strain and its absence is part of the complete specification of the product.

2.2 Characterization

The two batches, PPF 26813 and PPF 32126, used for the toxicological studies are characterized as described in Table 1.

Table 1. Characterization of batch PPF 26813 and batch PPF 32126

	Batch PPF 26813	Batch PPF 32126
Activity KMTU/g	117	340
Water (KF) % w/w	86.7	62.5
Dry matter % w/w	13.3	37.5
Ash (600°C) % w/w	2.3	6.9
Total Organic Solids (TOS[1]) % w/w	11.0	30.6
Specific gravity (g/ml)	1.057	1.178

[1] %TOS = 100% ÷ % water ÷ % ash.

3. TOXICITY DATA

3.1 General toxicity

3.1.1. 13-week Oral (gavage) Toxicity Study in Rats

The study was carried out in accordance with the OECD guideline 408 (adopted on September 1998). It was conducted in accordance with Good Laboratory Practice.

Forty male and forty female SPF Sprague Dawley rats of the Ntac:SD strain from Taconic Europe A/S were used in this study. The animals were randomly allocated to 4 groups (10 males and 10 females each). Group 1 was treated with tap water. Groups 2, 3 and 4 were treated with 58, 192 and 581 mg TOS per kg body weight (corresponding to 62 KMTU, 204 KMTU and 618 KMTU per kg body weight), respectively. The animals were treated orally (gavage) for 13 weeks. The dose volume was 5 ml/kg bw.

Clinical signs were recorded daily and detailed clinical observations were performed once weekly. Body weights and food consumption were recorded once weekly and water consumption twice weekly. All animals were examined with respect to reactivity to different types of stimuli, grip strength and motor activity. Ophthalmoscopy was performed before start of treatment and before termination of treatment. Before termination of treatment, blood samples were taken for hematology and clinical chemistry. The animals were killed and subjected to a macroscopic necropsy. Specified organs and tissues were weighed, fixed and prepared for histopatho-logical examination.

Analysis of achieved concentration was performed on samples taken once during weeks 1, 6 and 13. Achieved concentration was evaluated by measurement of enzyme activity, KMTU/g.

The oral administration of SP387/TL1, PPF 26813, for 13 weeks was well- tolerated. One male and one female in the intermediate group died (days 35 and 69, respectively). No *ante mortem* signs were observed and the cause of death was not identified at necropsy and both deaths were considered incidental.

No treatment related findings were recorded at the clinical and behavioural examinations, on food and water consumption, body weights or at the ophthalmoscopic examination.

No treatment related findings were observed on the parameters for serum biochemistry, haematology and on organ weights.

Necropsy and the following microscopic examination revealed no treatment related effects.

The results from the content check analysis showed that in the samples from week 1, 6 and 13, there were no significant differences between the intended activity and the results.

In conclusion, thirteen weeks of oral (gavage) treatment of rats with SP 387/TL1, batch PPF 26813 at dose levels up to 581 mg TOS/kg bw/day caused no dose-related findings. The NOAEL of the study is therefore 581 mg TOS/kg bw (equivalent to 618.3 KMTU/kg bw/day).

3.1.2 25-Day Oral (Gavage) Toxicity Study in Rats

The study was performed in compliance with Good Laboratory Practice. The study was carried out in accordance with the OECD guideline 407 (adopted on October 2008) with the one exception that the rats were dosed for 25 day instead of 28 days due to shortage of test substance.

This study was performed as a *bridging study* in order to establish a higher NOAEL for SP 387/TL1 than obtained in the previous 13 weeks toxicity study (study no. 65860, summarized in section 3.1.1) in which no toxicity occurred even at the highest dose level. The dosing volume in this study was increased from 5 to 10 mL/kg/day and the enzyme activity of the batch tested in this study was increased by a factor 3 compared to the previous 13-weeks study.

The study was conducted in 20 male and 20 female SPF Sprague Dawley rats of the Ntac:SD strain, in a parallel group design with 4 groups of 10 rats. The rats received daily oral treatment with SP387/TL1, batch PPF 32126 for 25 days at dose levels of 0 (vehicle control = tap water), 360, 1190 and 3605 mg TOS/kg bw/day for Groups 1, 2, 3 and 4, respectively (corresponding to 401, 1322 and 4005 KMTU/kg bw/day).

Clinical signs of ill health and behavioural changes were recorded daily including a more detailed observation of physical appearance once weekly. A functional observation battery consisting of an open field test and stimuli-induced tests was performed at termination.

Body weight, food consumption and water consumption were recorded on a regular basis. Ophthalmoscopy was performed before start and before termination of treatment. Blood and urine samples were collected from all animals before termination of treatment in Week 13 for evaluation of clinical chemistry (blood and urine) and haematology (blood) parameters. A macroscopic evaluation was performed on all animals. Selected tissues and organs were fixed, trimmed and subjected to microscopic examination.

Dose formulation analysis results showed that no activity above the detection limit was found for the control group, whereas the results of the enzyme activity for Groups 2-4 showed that the dosing formulations did not differ significantly from the expected values for all groups.

No treatment related clinical signs were recorded. One control animal (No 7, female) was killed on Day 23 due to adverse clinical signs and weight loss, caused by a mis-dosing with the gavage tube.

A slight tendency towards a reduction in food intake and body weight gain and an increased water intake in the high dose group was observed. These findings

indicate that the highest dose (3605 mg TOS/kg bw) of enzyme SP387/TL1 might not be palatable for the rat.

No treatment related findings were recorded at the ophthalmoscopic examination or in the functional observation battery and stimuli induced tests.

An increased serum urea level was observed as well as a lowering of pH in urine in the high dose females, which could be an effect of the increased protein intake from the test article and thereby increased protein catabolism. This was considered not to be of toxicological importance.

The test item did not have any treatment related effects on the haematology, coagulation parameters or on the urine microscopy.

At necropsy, at the organ weight analysis and at the histopathological examination, no treatment related findings were observed.

In conclusion, daily administration of up to 3605 mg TOS/kg bw/day of SP387/TL1 by oral gavage to Sprague Dawley rats for 25 days did not cause any treatment related toxicological effects. Consequently, 3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day) was considered the NOAEL of this study.

3.1.3 Overall conclusion of the General Toxicity Studies

No treatment related changes of toxicological significance were seen when SP387/TL1 was tested at dose levels up to 581 mg TOS/kg bw (equivalent to 618.3 KMTU/kg bw/day) and 3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day) in a 13 week oral (gavage) toxicity study in rats and a 25 day oral gavage study, respectively.

3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day) is therefore considered the overall NOAEL of these two studies.

3.2 Mutagenicity

3.2.1. Bacterial Reverse Mutation Assay (Ames Test)

The procedures used in this test complied in principle with OECD Guideline for Testing of Chemicals No. 471 (1997).

The test material SP387/TL1, batch PPF 26813 was examined for mutagenic activity in the bacterial reverse mutation assay using *Salmonella typhimurium* strain TA1535, TA100, TA1537, TA98 and *Escherichia coli* WP2uvrA.
Crude enzyme preparations, like the present batch of SP387/TL1, contain the free amino acid L-histidine, most often in an amount, which exceeds the critical concentration for incorporation in the direct standard assay.

To overcome this problem, all *Salmonella* strains were exposed to the test substance in liquid culture (“treat and plate assay”). Bacteria were exposed to 6 doses of the test substance in a phosphate buffered nutrient broth for 3 hours with 5 mg (dry matter) per ml as highest concentration. After incubation the test substance was removed by centrifugation prior to plating.

Usually the content of tryptophan in enzyme preparations is low and insignificant. Therefore the part of the study comprising *Escherichia coli* was conducted with the strain WP2uvrA using the direct plate incorporation assay. 6 doses of the test substance

were applied with 5 mg (dry matter) per plate as the highest dose level followed by successive bi-sections between doses. The study was conducted with and without the metabolic activation system S9 - a liver preparation from male rats, pre-treated with Aroclor 1254, and the co-factors required for mixed function oxidase activity (S9 mix).

Two identical and independent experiments were conducted.

We consider a test substance as positive when it has induced at least a doubling in the mean number of revertants per plate compared to the appropriate solvent control in one or more of the strains, in the presence or absence of S9, if this response is dose related and reproducible. If a dose related numerical increase below a doubling but at least 50% higher than the solvent control is observed then the result is considered as equivocal and need further clarification.

No treatments of any of the *Salmonella* and *E .coli* strains with the test substance, either in the presence or absence of S-9 mix, resulted in any increases in revertant numbers that meet these criteria for a positive response.

It was concluded, that the results of the experiments, described in this report, give no indication of mutagenic activity of SP387/TL1, batch PPF 26813 in the presence or absence of metabolic activation, when tested under the conditions employed in this study.

3.2.2. Chromosome Aberration Assay–cultured human lymphocytes

The effects on chromosomal structure of exposure to SP387/TL1, batch PPF 26813 were investigated in cultured human lymphocytes in accordance with the current guidelines of OECD (Guideline 473, July 1997) and the ICH Tripartite Harmonised Guideline on Genotoxicity: Specific Aspects of Regulatory Tests (1995).

Heparinised whole blood cultures from three female donors were established, and division of the lymphocytes was stimulated by adding phytohaemagglutinin (PHA) to the cultures.

Two independent experiments were performed both in the absence and presence of metabolic activation by a rat liver post-mitochondrial fraction (S-9) from animals induced with Aroclor 1254.

Sets of duplicate cultures were treated with the solvent (sterile purified water), test chemical or positive controls (–S-9: 4-Nitroquinoline 1-oxide, +S-9: Cyclophosphamide). Treatments with the test substance covered a broad range of doses, separated by narrow intervals, where the highest dose level used was 5000 µg/mL.

The lymphocyte cultures were exposed to the test substance for three hours and cells were harvested 17 hours later. The second experiment included a continuous exposure for 20 hours in the absence of S-9. The test substance dose levels for chromosome analysis were selected by evaluating the effect of the test substance on mitotic index.

Chromosome aberrations were analyzed at three consecutive dose levels. Cells were arrested in metaphase by colchicine and after centrifugation and hypotonic treatment metaphase spreads were prepared and stained with Giemsa. A total of 200 cells were scored per dose level (100 from each replicate culture) from test substance treatments and negative controls. Slides were scored blind and aberrations classified according to the scheme described by ISCN (ISCN 1985).

The proportion of cells with structural aberrations in all cultures of the solvent controls (purified water) was within the limits of the historical ranges. The positive controls induced statistically significant increases in the proportion of cells with structural aberrations, thus demonstrating the sensitivity of the test procedure and the metabolic activity of the S-9 mix employed.

In the first experiment, the highest concentration of the test substance chosen for analysis, 5000 µg/mL, produced no cytotoxicity (reduction in mitotic index) in the absence and presence of S-9 respectively.

In the second experiment, the treatment in the absence of S-9 was continuous for 20 hours. The highest concentration chosen for analysis, 5000 µg/mL, approximately 33% and 0% mitotic inhibition in the absence and presence of S-9 respectively.

Cells treated with the test substance either in the absence or presence of S-9, had similar numbers of aberrations to those observed in concurrent solvent controls. There were no increases in aberration frequency that were significantly higher than those observed in the negative controls.

Normal frequencies of cells with numerical aberrations were seen under all treatment conditions.

It was concluded that SP387/TL1, batch PPF 26813 under the conditions of the test, did not induce chromosome aberrations in cultured human blood lymphocytes.

4. REFERENCES

4.1 Studies

SP 387/ TL1, PPF 26813: 3-months toxicity study in rats. NZ Reference No.: 20076021. LAB Research (Scantox) Study No: 65860. LAB Research (Scantox), February 2008. File No.: 2008-07714.

SP387/TL1: A 25-Day Oral (Gavage) Toxicity Study in Rats. NZ Reference No.: 20116015. LAB Research (Scantox) Study No.: 73488. LAB Research (Scantox), August 2011. File No. 2011-23302.

SP 387/TL1: Induction of Chromosome Aberrations in Cultured Human Peripheral Blood Lymphocytes. NZ Reference No.: 20076031. Covance Study No. 1974/63. Covance, Sept 2007. File No.: 2007-38804-01.

SP 387/TL1, PPF 26813: Test for Mutagenic Activity with Strains of *Salmonella typhimurium* and *Escherichia coli.* NZ Study No.: 20078062. Novozymes, November 2007. File No.: 2007-46872-01.

4.2 Literature and Guidelines

OECD, Guidelines for testing of Chemicals. Section 3 and 4: Health effects. Organisation for Economic Co-operation and Development, Paris.

OECD principles of Good Laboratory Practice (GLP) (as revised in 1997), ENV/MC/CHEM(98)17. OECD, Paris.

ISCN (1995): An International System for Human Cytogenetic Nomenclature. Editor Felix Mitelman; S Karger, Switzerland.

novozymes
Rethink Tomorrow

Safety & Toxicology

Date:	28.Nov.2007
Proj:	Dev 00699
File:	2007-46872-01
Ref.:	PScK/PBjP

REPORT

SP 387/TL1, batch PPF 26813: Test for Mutagenic Activity with Strains of *Salmonella typhimurium* and *Escherichia coli.*

Study No. 20078062

Author :
[redacted]

Issued by :
Novozymes A/S
Krogshøjvej 36
DK- 2880 Bagsværd
Denmark

CONTENTS

GLP - COMPLIANCE STATEMENT

REPORT: SP 387/TL1, PPF 26813: Test for Mutagenic Activity with Strains of *Salmonella typhimurium* and *Escherichia coli* .

STUDY No.: 20078062

A sample of SP 387/TL1 Batch Number: PPF 26813 was received from Recovery Pilot Plant, Novozymes A/S.

This study was conducted at the department of Safety & Toxicology, Novozymes A/S in compliance with the following current Good Laboratory Practice Regulations:

OECD, ENV/MC/CHEM(98)17, 1998

Date : 28 Nov 07

[redacted]

Study Director

QUALITY ASSURANCE STATEMENT

Report: SP 387/TL1, batch PPF 26813
Test for Mutagenic Activity with strains of Salmonella typhimurium and Escherichia coli

STUDY NUMBER 20078062

The conduct of this study has been subject to appropriate inspections and the report has been reviewed according to the relevant Standard Operation Procedures of Novozymes A/S Quality Assurance.

Inspection/Audit	Dates of inspection	Dates of Audit Report signed by Study Director	Dates of Audit Report signed by Study Management
Protocol	6 AUG 2007	20 AUG 2007	21 AUG 2007
Preparation of test solution	23 AUG 2007	10 SEP 2007	10 SEP 2007
Report	12 NOV 2007	26 NOV 2007	26 NOV 2007

28. Nov. 2007
Date

[redacted]
Quality Assurance

1. GENERAL INFORMATION

STUDY

SP 387/TL1, PPF 26813: Test for Mutagenic Activity with Strains of *Salmonella typhimurium* and *Escherichia coli*.
Study No. 20078062

STUDY DIRECTOR

[redacted]
Safety & Toxicology
Novozymes A/S
Krogshøjvej 36
DK - 2880 Bagsværd

MANAGEMENT/ SPONSOR

[redacted]
Safety & Toxicology
Novozymes A/S
Krogshøjvej 36
DK - 2880 Bagsvaerd

TEST FACILITIES

[redacted]
Novozymes A/S
Krogshøjvej 36
DK - 2880 Bagsvaerd

ARCHIVE

[redacted]
Novozymes A/S
Krogshøjvej 36
DK - 2880 Bagsvaerd

DATES OF STUDY

Study initiation date:	25.July.2007
Experimental start date:	24.August.2007
Experimental termination:	15.October.2007

PERSONNEL INVOLVED IN THE STUDY

TECHNICIANS

[redacted] Safety & Toxicology
[redacted] – Safety & Toxicology

DATE OF FINAL REPORT

Date: 28. Nov. 07 [redacted]

Safety & Toxicology

2. SUMMARY

SP 387/TL1 (Batch Number: PPF 26813) was examined for mutagenic activity in the bacterial reverse mutation assay using *Salmonella typhimurium* strain TA1535, TA100, TA1537, TA98 and *Escherichia coli* WP2uvrA.

Crude enzyme preparations, like the present batch of SP387/TL1, contain the free amino acid L-histidine, most often in an amount, which exceeds the critical concentration for incorporation in the direct standard assay.
To overcome this problem all *Salmonella* strains were exposed to SP387/TL1 in liquid culture ("treat and plate assay"). Bacteria were exposed to 6 doses of the test substance in a phosphate buffered nutrient broth for 3 hours with 5 mg (dry matter) per ml as highest concentration. After incubation the test substance was removed by centrifugation prior to plating.
Usually the content of tryptophan in enzyme preparations is low and insignificant. Therefore the part of the study comprising *Escherichia coli* was conducted with the strain WP2uvrA using the direct plate incorporation assay. 6 doses of the test substance were applied with 5 mg (dry matter) per plate as the highest dose level followed by successive bi-sections between doses.

The study was conducted with and without the metabolic activation system S9 - a liver preparation from male rats, pre-treated with Aroclor 1254, and the co-factors required for mixed function oxidase activity (S9 mix).

Two identical and independent experiments were conducted.

We consider a test substance as positive when it has induced at least a doubling in the mean number of revertants per plate compared to the appropriate solvent control in one or more of the strains, in the presence or absence of S9, if this response is dose related and reproducible. If a dose related numerical increase below a doubling but at least 50% higher than the solvent control is observed then the result is considered as equivocal and need further clarification.

No treatments of any of the *Salmonella* and *E.coli* strains with SP 387/TL1 (Batch PPF 26813) either in the presence or absence of S-9 mix, resulted in any increases in revertant numbers that meets these criteria for a positive response.

It was concluded, that the results of the experiments, described in this report, give no indication of mutagenic activity of SP 387/TL1 (Batch Number: PPF 26813) in the presence or absence of metabolic activation, when tested under the conditions employed in this study.

3. INTRODUCTION

Bacterial reverse mutation assays have been recognised and used for more than two decades as a rapid, sensitive and reliable method of evaluating the mutagenic potential of chemicals.
Bacterial systems offer several advantages to other test systems. They can be grown in large numbers in a short time, enabling the detection of very rare mutational events. Further, extensive knowledge of bacterial genetics has allowed the construction of special strains, which are more sensitive than are wild-type strains to a variety of agents.
The reversion of bacteria from growth-dependence on a particular amino acid to growth in the absence of that amino acid is the most widely used marker in reverse-mutation assays. The genetic target is small, specific and selective, and the phenotypic effect of the reverse mutation is easily detected.
A wide range of strains within the species *Salmonella typhimurium* (Ames strains) and *Escherichia coli* have been constructed in order to make the test system more sensitive and selective to different classes of chemical mutagens.
By incorporation of the post-mitochondrial supernatant (S9) from the livers of rats pre-treated with an enzyme inducer Aroclor 1254, the metabolising systems present in mammalian cells are mimicked to facilitate the detection of a wide range of pro-mutagens.

This report describes experiments performed to assess the activity of SP 387/TL1 (Batch Number: PPF 26813) in amino acid dependent strains of *Salmonella typhimurium* and *Escherichia coli* capable of detecting both induced frame-shift (TA1537 and TA98) and base-pair substitution mutations (TA1535, TA100, and WP2uvrA).

SP 387/TL1 (Batch No. PPF 26813) is a microbial enzyme preparation derived from submerged pure culture fermentation of a non-pathogenic and non-toxigenic strain. It contains a variety of unspent medium residues, including low concentrations of free amino acids like histidine and tryptophan.
This complexity poses several problems during mutagenicity testing in vitro. In the Ames test it composes a rich growth medium to the test bacteria, resulting in completely different and poorly defined environments of exposed cultures compared to control cultures. The main problem is the content of utilizable histidine and tryptophan in the test material, since the principle of the Ames test is the histidine auxotrophy of the *Salmonella* tester strains and tryptophan auxotrophy of the *E.coli* strains.
As a result, the density of the bacterial background lawn increase with increasing doses ("feeding effect") followed by dose related increases in the number of spontaneous revertant. These increases are obviously artificial.
To overcome this problem all *Salmonella* strains applied in the present study were treated with SP 387/TL1 in liquid culture ("treat and plate assay").

The part of the study comprising *Escherichia coli* was conducted with the strain WP2uvrA using the direct plate incorporation assay.

The study was conducted in accordance with OECD Guideline for testing of chemicals, No. 471: Bacterial Reverse Mutation Assay" (July 1997 concerning the general specifications of the test. However the exposure of test bacteria in liquid culture ("treat and plate") is not specifically described in any guidelines.

4. MATERIALS

4.1. Test substance

SP 387/TL1 (Batch Number: PPF 26813) was received from Recovery Pilot Plant on the 18.Apr.2007, and immediately stored in a freezer. The substance was a brown liquid with a declared content of 13.3 % (w/w) dry matter.

A standard solution of 5% (w/v) dry matter was prepared in deionised water and sterilised by filtration.
Samples were sterilised by filtration and the sterility was confirmed by plate counting. Solution was stored at 4°C and used as test substance.

4.2. Positive control substances

Chemical	Source	Lot.No.
2-Nitrofluorene (2-NF)	Aldrich-Chemie	S 08447-476
9-Aminoacridine (9-AA)	SIGMA Chemical Company	106F-06682
2-Aminoanthracene (2-AA)	Aldrich-Chemie	S 34773-376
N-Methyl-N´-Nitrosoguanidine – MNNG	Aldrich-Chemie	15427-L0

All positive control substances were dissolved in dimethyl sulphoxide (spectrophotometric grade) obtained from Merck, Darmstadt, Germany.

4.3. **Liver homogenate - S9**

A commercial preparation of S9 from Aroclor 1254 induced Spraque Dawley rats was obtained from MP Biomedicals, LLC. 29525 Fountain Parkway Solon, Ohio 11439. Specifications of the preparation, the enzymatic properties and metabolic activation from the supplier are archived as raw data.

The tubes with S9 were received frozen in dry ice and were immediately stored in a ÷80°C ultra low freezer at Safety & Toxicology, Novozymes.

4.4. **Plates**

As selective substrate for reverted bacteria Vogel-Bonner medium E agar plates with 2% glucose were prepared in-house as described in Appendix 3.

All plates were stored at 4°C in closed plastic bags and examined for contamination and dryness before use.

4.5. **Bacteria**

Salmonella typhimurium

Four strains of *Salmonella typhimurium* were used:
S. typhimurium TA1535
S. typhimurium TA100
S. typhimurium TA1537
S. typhimurium TA98

All these strains contain mutations in the histidine operon, thereby imposing a requirement for histidine in the growth medium. They all contain GC base-pairs at the site of the histidine mutation, and are therefore selective for agents which react predominantly with these bases. Three mutations in the histidine operon are involved:
his G 46 (TA1535 and TA100) is a missense mutation which is reverted to prototrophy by a variety of mutagens that cause base-pair substitutions.
his C 3076 (TA1537) contains a frame-shift which appears to have added a GC base-pair. This mutation is reverted for example by 9-Aminoacridine and epoxides of polycyclic hydrocarbon.
his D 3052 (TA98) also contains a frame-shift mutation with a sequence of repeated GC, which is reverted with the deletion of 2 of these base-pairs. It is readily reverted by aromatic amines and derivatives.

All 4 strains contain the deep rough (rfa) mutation, which deletes the polysaccharide side chain of the polysaccharide coat of the bacterial cell surface. This deletion increases cell permeability to more hydrophobic substances and, furthermore, greatly decreases the pathogenicity of these organisms.
The uvrB deletion renders the strains incapable of excision repair, making them more sensitive both to the mutagenic and lethal effects of a wide variety of mutagens (e.g. poly-aromatic hydrocarbons), since the strains can not excise DNA adducts.
These 2 deletions include the nitrate reductase (chl) and biotin (bio) genes also.

Strain TA98 and TA100 are derived from strain TA1538 and TA1535 respectively by the addition of a plasmid, pKM101, which confers resistance to ampicillin. This plasmid also carries a gene (muc^+), which in some strains ($recA^+/lexA^+$) have proven to participate in "SOS" DNA-repair. This repair pathway is induced by DNA damage and confers resistance to the lethal effects of many mutagens at the expense of increased mutability. Bacteria carrying pKM101 have therefore a higher spontaneous mutation rate.

Escherichia coli

One strain was used:
Escherichia coli WP2uvrA.

This strain contain an ochre mutation in the trpE locus and can be mutated to tryptophan independence either by a base-pair reversion of an A-T base-pair in the trpE locus, or more likely, by a base-pair substitution within a number of transfer RNA loci elsewhere in the chromosome. The latter causes the original defect to be suppressed (ochre suppression) and involves only base-pair substitution transitions at G-C base-pairs.
Like the uvrB mutation in the Salmonella strains, the uvrA mutation causes the bacteria to be deficient in the excision of bulky lesions from the DNA, so, it is more readily mutated by certain agents (ultraviolet radiation, polycyclic hydrocarbons).

4.6. **Bacterial cultures**
The test strains of *Salmonella typhimurium* LT2 were obtained from Prof. B.N. Ames, Biochemistry Department, University of California, Berkeley, CA 94720, U.S.A.
Escherichia coli WP2uvrA was obtained from The National Collections of Industrial and Marine Bacteria Ltd., Aberdeen, Scotland.
New batches of culture stocks frozen in 8% dimethyl sulphoxide are prepared at intervals from a central stock held in liquid nitrogen. They are regularly checked for appropriate amino acid requirement, spontaneous reversion rate, genetic characters and response to diagnostic mutagens.
Samples of each strain were grown up overnight in Nutrient broth in a 37 ± 1°C water bath with shaking. Fresh cultures were prepared before each test.

4.7. **S9 mix**
Composition of a 10% V/V S9 mix (final concentrations):
Co-factors:
-phosphate buffer (0.2M, pH 7.4) .....100 mM
-salts (1.65M KCl, 0.4 M MgCl) ..... 33 and 8 mM
-glucose-6-phosphate, mono-Na salt (0.2M) .....5 mM
-NADP, di-Na salt (0.1M).....4 mM
S9 preparation .....10% V/V
A freshly prepared solution of the co-factors was filter-sterilised by passage through a 0.2 µm membrane filter and mixed 9:1 (v/v) with freshly thawed still cold S9 preparation.
This S9 mix was prepared freshly each day, and immediately used. Unused reagent was discarded.

4.8. **Test material**
Serial dilutions of the sterile standard solution (4.1.) were prepared in sterile deionised water corresponding to the final dose levels:

5000 µg - 2500 µg - 1250 µg - 625 µg - 313 µg – 156 µg substance per ml.

The dilutions were prepared freshly each day just before use.
This range of doses was applied in experiments with respectively without S9.

4.9. **Top agar**
0.6 % soft agar was sterilised by autoclaving.
Bottles with 100 ml melted soft agar were kept at about 55°C and added 0.5 mM 10 ml L-histidine/biotin solution for strains of *Salmonella* or 10 ml 0.5 mM tryptophan solution for *Escherichia coli*. This molten agar was divided into 2 ml aliquots in sterile glass tubes and placed in a "Digital heatblock" (VWR) at 45 ± 1°C.

5. METHODS

5.1. Treat and plate assay

This procedure was applied in a supplementary test with all *Salmonella typhimurium* strains.

For each assay sterile tubes were added:
- 4 ml Nutrient broth
- 4 ml S9 mix or 0.2M phosphate buffer (pH 7.4)
- 1 ml bacterial culture
- 1 ml test substance solution (6 doses) or diagnostic mutagen solution (positive control) or sterile deionised water (solvent control).

These incubation mixtures were incubated with shaking at 37 ± 1°C for 3 hours.
After incubation all bacterial suspensions were washed 2 times by centrifugation for 10 minutes at 2500 rpm. After the first washing the bacterial pellets were resuspended in 5 ml phosphate buffer (pH 7.4, 0.2M) and finally they were re-suspended in 1 ml phosphate buffer.
Tubes with top agar were added 0.1 ml of all washed bacterial suspensions.

5.2. Plate incorporation assay

This procedure was applied in all test series with *Escherichia coli* WP2uvrA

Tubes with molten top agar were added:
- 100 µl of the dosing solutions of the test article or solvent (negative control) or standard mutagen (positive control).
- 100 µl bacterial culture.
- 500 µl S9 mix in test series with metabolic activation or 500 µl 0,2 M phosphate buffer in series without metabolic activation.

5.3. Selective incubation

For each dose of the test substance and the standard mutagens 3 similar tubes with top agar were prepared and 5 tubes were prepared for the solvent control.
These tubes were poured on to minimal glucose agar plates. When the soft agar set, the plates were inverted and incubated at 37 ± 1°C for about 64 hours. After incubation the numbers of revertant colonies were counted automatically ("Cardinal" - Perceptive Instruments). Plates with less than about 20 colonies were counted manually.

5.4. Viable cell count

0.1 ml aliquots of a 10^{-6} dilution of each bacterial suspension were poured on to minimal glucose agar plates (added the required amino acids in excess) in duplicates.

5.5. Controls

The following controls were run with each experiment:

Genotype checking:
Sensitivity for crystal violet (rfa-character), (except *E.coli*)
Sensitivity for Mitomycin C (uvrB).
Resistance to ampicillin

0.1 ml bacterial culture was spread on to complete agar medium. To the surface of the dried plate was added a disc of ampicillin/(Rosco Neo-Sensitabs) and two 6 mm ϕ sterile filter discs, one with 10µl 0.1% crystal violet and the other with 10µl 0.01% Mitomycin C. The plate was incubated for 64-72 hours at 37 ± 1°C.

Sterility of S9 mix:
0.1 ml S9 mix was plated on to complete medium and incubated for 64-72 hours at 37 ± 1°C.

Diagnostic mutagens were used for each strain with and without S9 mix, as follows:

Mutagen	S9	Strain	µg/mL or plate
MNNG	-	TA 1535	1.0
MNNG	-	TA 100	1.0
2-NF	-	TA 98	20.0
9-AA	-	TA 1537	2.0
MNNG	-	WP2uvrA	5.0
2-AA	+	TA 98	5.0
2-AA	+	TA 1537	5.0
2-AA	+	TA 1535	5.0
2-AA	+	TA 100	5.0
2-AA	+	WP2uvrA	20.0

5.6. Deviation from protocol

In the protocol it was stated that the study is conducted in accordance with the standard operating procedures SAT-SM-0005 and SAT-SM-0008 version 4. In this version the control mutagen specified for the *E.coli* strain without metabolic activation is ENNG (N-ethyl-N´-nitrosoguanidine). However, the positive control substance used in the present study is MNNG (N-methyl-N´-nitrosoguanidine) with a dosage of 5 µg per plate. This change of control mutagen was rectified in a version 5 of these SOP's which were put into force during the study.

6. RESULTS AND DISCUSSION

6.1 Genetic characters

All *Salmonella* strains used in these experiments were sensitive to crystal violet and Mitomycin C. TA98 and TA100 were both resistant to ampicillin. The *E.coli* WP2uvrA strain was sensitive to Mitomycin C. These results are as expected.

6.2 Negative control levels

In general the negative control values presented in this report are within the normal ranges experienced in our laboratory with these strains of *Salmonella typhimurium* and *Escherichia coli*. The exception to this is rather high spontaneous revertant levels in the experiments with TA1537 without S9. Especially in the first experiment the value significantly exceeded our historical data for a treat and plate assay. However, since the culture responded extremely well to the standard mutagen 2-aminoacridine and all other specific characters and the viability were satisfactory, the culture were considered valid.
In the second experiment with the *Salmonella* strain TA98 with S9 the spontaneous level was in the high end of our historical data for a treat and plate assay but within the normal range for a standard plate incorporation assay according to literature and as experienced in our laboratory.

6.3 Diagnostic mutagens

In general the positive control chemicals induced significant increases in revertant colony numbers and within the normal ranges experienced in our laboratory thereby confirming the sensitivity of the test system.

6.4 SP 387/TL1 (Batch Number: PPF 26813)

The results are represented in Table 1-11.

Based on the viable counts of the treated culture distinct toxicity was observed in tests with the two base-pair substitution strain TA100, TA1537 and TA1535 of *Salmonella* with S-9 incorporation but only at the highest dose level and only in the second experiment with TA100 and TA1535.

SP 378/TL1 is a fluid enzyme preparation. It contains an abundance of various nutrients, and composes a rich growth medium to the test bacteria. This means, that comparison of viable counts between exposed cultures and control culture in a "treat and plate" assay reflects growth stimulation/inhibition as well as cell killing. Variation in the viable counts may cause some variation in the number of spontaneous revertant colonies. The present results may reflect this fact.

It is our experience, that in a treat and plate assay, where bacteria are exposed to different doses of such a test substance in separate liquid cultures for a certain time, the spontaneous revertant levels fluctuate more than in the direct "plate incorporation assay."

Weak numerical increases are observed in some of the test series. However they are all without any dose relation and coincide with increases in the viable count due to growth stimulating effect of the test substance.

We consider a test substance as positive in this treat and plate assay when it has induced at least a doubling in the mean number of revertants per plate compared to the appropriate solvent control in one or more of the strains, in the presence or absence of S9, if this response is dose related (at least 3 doses) and reproducible. If a numerical increase below a doubling is observed the result is considered as equivocal and need further clarification if the increase is dose related and reproducible and it is not accompanied by significant increases in the viable bacterial count.

No treatments of any of the *Salmonella* and *E.coli* strains with SP 387/TL1 resulted in any increases in revertant numbers that meets these criteria for a positive or equivocal response.

7. CONCLUSION

The results of the bacterial mutagenicity tests described in this report give no indication of the presence of mutagenic components in this preparation of SP 387/TL1 (Batch No. PPF 26813), when tested under the conditions employed in this study.

Table 1. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the absence of metabolic activation in the treat and plate assay.

1. experiment. Without S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Base-pair substitution type							
	TA100				**TA1535**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	87 90 131	103	110 105	108	14 9 5	9	183 182	183
2500	148 174 157	160	172 188	180	8 12 5	8	183 179	181
1250	144 148 144	145	124 151	138	11 9 12	11	141 126	134
625	150 158 161	156	144 158	151	9 7 8	8	128 168	148
313	109 110 145	121	75 91	83	4 6 7	6	99 109	104
156	115 118 114	116	123 113	118	10 3 6	6	190 174	182
Solvent control	119 135 144 117 109	125	81 114	98	8 12 8 11 3	8	129 151	140
MNNG 1.0 µg	2535 2620 2458	2538	137 137	137	1904 1772 2001	1892	88 110	99

Abbreviations:

MNNG: N-Methyl-N'-nitro-N-nitrosoguanidine

Table 2. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

1. experiment. With S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Base-pair substition type							
	TA100				**TA1535**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	107 112 84	101	49 58	54	6 8 7	7	119 123	121
2500	99 115 107	107	58 42	50	7 5 6	6	119 113	116
1250	169 136 178	161	130 142	136	5 8 12	8	201 249	225
625	131 175 148	151	234 265	250	4 8 4	5	141 177	159
313	148 162 134	148	131 152	142	8 8 7	8	221 223	222
156	165 134 181	160	171 184	178	10 6 14	10	340 327	334
Solvent control	130 126 124 123 98	120	85 123	104	9 6 6 8 7	7	109 124	117
2-AA 5.0 µg	1088 996 985	1023	92 63	78	140 151 152	148	87 140	114

Abbreviations:

2-AA: 2-aminoanthracene

Table 3. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the absence of metabolic activation in the treat and plate assay.

1. experiment. Without S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Frame-shift mutation type							
	TA98				**TA1537**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	21 20 15	19	227 250	239	33 43 47	41	184 199	192
2500	14 18 14	15	195 158	177	53 44 43	47	195 199	197
1250	25 23 23	24	175 174	175	47 39 48	45	244 245	245
625	15 9 20	15	148 161	155	52 44 53	50	148 190	169
313	23 15 21	20	160 167	164	33 28 41	34	186 182	184
156	21 19 16	19	156 160	158	45 44 47	45	186 178	182
Solvent control	13 12 15 19 15	15	153 174	164	37 32 55 39 36	40	167 151	159
2-NF 20.0 µg	1159 1149 1038	1115	158 124	141				
9-AA 2.0 µg					1950 2228 2477	2218	155 207	181

Abbreviations:

2NF: 2-nitrofluorene
9-AA: 2-aminoacridine

Table 4. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

1. experiment. With S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Frame-shift mutation type							
	TA98				**TA1537**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	40 26 25	30	147 172	160	6 6 8	7	5 4	5
2500	27 32 21	27	353 401	377	6 4 8	6	37 29	33
1250	15 33 23	24	326 347	337	8 10 10	9	119 132	126
625	52 79 70	67	389 285	337	10 10 9	10	123 146	135
313	67 71 81	73	204 206	205	8 12 15	12	237 210	224
156	67 71 61	66	253 258	256	15 7 15	12	215 207	211
Solvent control	23 26 29 33 22	27	109 101	105	12 10 8 12 10	10	56 47	52
2-AA 5.0 µg	1775 1776 1750	1767	64 90	77	123 142 129	131	49 44	47

Abbreviations:

2-AA: 2-aminoanthracene

Table 5. Number of revertant colonies per plate obtained with ***E.coli* WP2uvrA** following exposure to SP 387/TL1 (Batch No. PPF 26813) in the absence and presence of metabolic activation in the direct plate incorporation assay

1. experiment.

Test substance concentration (µg/plate)	**Without metabolic activation (+S9)**		**With metabolic activation (+S9)**	
	Revertants[1)]		Revertants[1)]	
	Single plates	Mean	Single plates	Mean
5000	39 38 47	41	27 22 22	24
2500	39 42 32	38	27 19 16	21
1250	45 58 54	52	37 53 23	38
625	37 45 42	41	27 45 25	32
313	33 39 23	32	26 29 42	32
156	39 43 38	40	27 45 36	36
Solvent control	40 33 33 26 31	33	49 49 27 39 43	41
MNNG 5 µg	107 128 94	110		
2-Amino-anthracene 20 µg			662 529 634	608
Viable count of bacterial cultures x 10^7	215 199	207	215 199	207

Number of revertant colonies per plate

Abbreviation: MNNG = N-Methyl-N'-nitro-N-nitrosoguanidine

Table 6. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

2. experiment. Without S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Base-pair substition type							
	TA100				**TA1535**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	70 126 110	102	123 119	121	13 8 6	9	160 155	158
2500	150 106 100	119	107 139	123	10 11 9	10	144 136	140
1250	117 125 113	118	114 106	110	11 9 6	9	158 193	176
625	130 112 102	115	112 108	110	10 7 5	7	153 171	162
313	83 121 80	95	101 103	102	11 8 8	9	153 169	161
156	119 117 110	115	122 86	104	7 6 8	7	139 159	149
Solvent control	121 96 129 83 111	108	117 139	128	12 14 8 11 16	12	134 130	132
MNNG 1.0 µg	2642 2550 2681	2624	83 88	86	1573 1457 1745	1592	103 103	103

Abbreviations:

MNNG: N-Methyl-N'-nitro-N-nitrosoguanidine

Table 7. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

2. experiment. With S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Base-pair substation type							
	TA100				**TA1535**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	58 68 51	59	1 1	1	4 12 16	11	3 14	9
2500	83 89 82	85	40 61	51	1 4 9	5	107 98	103
1250	108 117 111	112	178 182	180	6 16 10	11	209 206	208
625	107 113 131	117	135 161	148	10 12 11	11	213 241	227
313	111 130 121	121	126 152	139	6 17 19	14	188 169	179
156	77 116 155	116	115 135	125	7 7 7	7	241 203	222
Solvent control	99 95 95 76 77	88	99 118	109	12 13 15 16 4	12	165 167	166
2AA 5.0 µg	1528 1462 1250	1413	69 75	72	115 129 123	122	104 98	101

Abbreviations:

2-AA: 2-aminoanthracene

Table 8. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to Sp 387/TL1 (Batch No. PPF 26813) in the absence of metabolic activation in the treat and plate assay.

2. experiment. Without S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Frame-shift mutation type							
	TA98				**TA1537**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	15 17 20	17	210 217	214	9 12 20	14	233 209	221
2500	17 22 13	17	261 200	231	6 12 11	10	186 207	197
1250	17 27 13	19	209 174	192	15 16 5	12	150 155	153
625	8 13 5	9	248 201	225	9 14 12	12	169 167	168
313	19 9 16	15	173 196	185	11 14 15	13	151 153	152
156	25 16 16	19	153 174	164	16 11 11	13	185 161	173
Solvent control	11 13 6 17 17	13	202 188	195	14 18 16 18 13	16	156 158	157
2-NF 20.0 µg	748 808 880	812	130 193	162				
9-AA 2.0 µg					1480 1539 1504	1508	109 129	119

Abbreviations:

2NF: 2-nitrofluorene
9-AA: 2-aminoacridine

Table 9. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

2. experiment. With S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Frame-shift mutation type							
	TA98				**TA1537**			
	Revertants[1)]		Viable cells [2)]		Revertants[1)]		Viable cells [2)]	
	Single plates	Mean	Single plates	Mean	Single plates	Mean	Single plates	Mean
5000	21 21 17	20	200 163	182	10 5 9	8	0 0	0
2500	37 15 26	26	291 222	257	4 7 11	7	47 56	52
1250	16 13 32	20	342 315	329	7 11 15	11	153 125	139
625	37 44 29	37	304 331	318	11 11 14	12	204 166	185
313	21 29 30	27	201 207	204	16 15 16	16	211 182	197
156	25 38 31	31	264 255	260	18 16 15	16	174 174	174
Solvent control	28 11 18 26 16	20	200 175	188	7 13 6 11 6	9	63 53	58
2AA 5.0 µg	1733 1619 1655	1669	150 147	149	71 94 67	77	48 49	49

Abbreviations:

2-AA: 2-aminoanthracene

Table 10. Number of revertant colonies per plate obtained with ***E.coli* WP2uvrA** following exposure to SP 387/TL1 (Batch No. PPF 26813) in the absence and presence of metabolic activation in the direct plate incorporation assay

2 experiment.

Test substance concentration (µg/plate)	**Without metabolic activation (+S9)**		**With metabolic activation (+S9)**	
	Revertants[1)]		Revertants[1)]	
	Single plates	Mean	Single plates	Mean
5000	31 43 37	37	20 20 28	23
2500	39 27 29	32	37 22 31	30
1250	40 38 47	42	31 58 38	42
625	29 33 32	31	37 42 56	45
313	45 32 39	39	39 38 32	36
156	39 53 31	41	48 33 37	39
Solvent control	37 50 27 37 40	38	63 49 47 55 59	55
MNNG 5 µg	227 199 199	208		
2-Amino-anthracene 20 µg			516 558 514	529
Viable count of bacterial cultures x 10^7	216 195	207	216 195	207

Number of revertant colonies per plate

Abbreviation: MNNG = N-Methyl-N'-nitro-N-nitrosoguanidine

Table 11. Number of revertant colonies per plate obtained with *Salmonella typhimurium* following exposure to SP 387/TL1 (Batch No. PPF 26813) in the presence of metabolic activation in the treat and plate assay.

3. experiment. With S9 Mix

Test Substance Concentration µg per mL	Number of revertants (number of colonies/plate) Frame-shift mutation type							
	TA98							
	Revertants[1)]		Viable cells [2)]					
	Single plates	Mean	Single plates	Mean				
5000	28 22 32	27	232 209	221				
2500	22 21 17	20	205 243	224				
1250	28 28 18	25	299 250	275				
625	33 25 25	28	291 285	288				
313	28 32 29	30	275 225	250				
156	22 26 32	27	256 256	256				
Solvent control	32 29 29 41 37	34	186 156	171				
2-AA 5.0 µg	2206 1977 1877	2020	166 159	163				

Abbreviations:

2-AA: 2-aminoanthracene

APPENDIX 1

Historical control data

Negative control (purified water) ranges for *S. typhimurium* strains in the treat and plate assay and *E.coli* WP2uvrA in the direct plate incorporation assay (SOP: SAT-SM-0008 and SAT-SM-0005)

Strain	S9	Number of determinations	Mean number of revertants per plate	SD	Range *)	
					lower	upper
TA1535	÷	16	7.6	5.2	3	23
	+	17	7.5	3.6	2	14
TA100	÷	18	103.7	33.5	66	182
	+	20	116.6	33.6	44	174
TA1537	÷	10	10.0	1.6	9	14
	+	19	13.6	5.5	7	28
TA98	÷	20	17.8	5.4	7	27
	+	20	22.3	5.6	12	33
WP2 uvrA	÷	29	34.4	7.6	22	50
	+	21	48.1	10.9	31	76

The above are pooled data from a number of independent determinations selected from studies conducted over the period November 2005 to October 2007, for which the correct strain and assay functioning was considered to have been confirmed. Only determinations, which were obviously vitiated by errors, have been omitted.

*) Ranges stated are the maximum and minimum mean spontaneous revertant counts from the data sets sampled.

APPENDIX 2

Historical control data

Positive control ranges for *S. typhimurium* strains in the treat and plate assay and *E.coli* WP2uvrA in the direct plate incorporation assay (SOP: SAT-SM-0008 and SAT-SM-0005)

Strain	S9	Number of determinations	Chemical	Mean number of revertants per plate	SD	Range **)	
						lower	upper
TA1535	÷	16	MNNG 1 µg/mL	4098	1598	562	6356
	+	17	2-AA 5 µg/mL	146	34	77	195
TA100	÷	18	MNNG 1 µg/mL	3538	1150	1293	5343
	+	20	2-AA 5 µg/mL	1234	463	458	2080
TA1537	÷	10	9-AA 2 µg/mL	1334	813	333	3167
	+	19	2-AA 5 µg/mL	149	58	38	228
TA98	÷	20	2-NF 20 µg/mL	890	342	229	1902
	+	20	2-AA 5 µg/mL	1971	549	805	2998
WP2uvrA	÷	6	MNNG *) 5 µg/plate	178	84	110	335
	+	21	2-AA 20 µg/plate	530	150	300	782

The above are pooled data from a number of independent determinations collected from studies conducted over the period November 2005 to October 2007, for which the correct strain and assay functioning was considered to have been confirmed. Only determinations, which were obviously vitiated by errors, have been omitted.
*) The exception to this is the data for the *E.coli* strain without S9, which were collected from the period July 2007 to September 2007 with the data for the present study included. This rather limited amount of determinations is due to a more recent change of our standard control mutagen.

**) Ranges stated are the maximum and minimum mean revertant colony counts from the data sets sampled.

Abbreviations:

2NF: 2-nitrofluorene
MNNG: N-Methyl-N'-nitro-N-nitrosoguanidine
2-AA: 2-aminoanthracene
9-AA: 2-aminoacridine

APPENDIX 3

PREPARATION OF MEDIA

1. **Top-agar - histidine-deficient soft agar**

Agar, Merck	0.6 g
NaCl	0.5 g
Distilled water to	100 ml

The medium was autoclaved for 15 minutes at 121°C. After cooling to about 60°C, 10 ml of a sterile aqueous solution of 0.5 mM biotin - 0.5 mM histidine was added aseptically.

2. **Nutrient broth - histidine-rich broth**

Difco nutrient broth	8 g
NaCl	5 g
Distilled water to	1 litre

The medium was autoclaved for 15 minutes at 121°C.

3. **Nutrient agar - histidine-rich agar medium**

Agar, Merck	15 g
Oxoid nutrient broth No. 2	25 g
Distilled water to	1 litre

The medium was autoclaved for 15 minutes at 121°C.

4. **Minimal medium**

This was Vogel-Bonner minimal "E" medium with 2% glucose, prepared as follows :

Solution A (Vogel-Bonner medium E, 20X)

$MgSO_4$ $7H_2O$	4 g
Citric acid, monohydrate	40 g
K_2HPO_4	200 g
$NaHNH_4$ $4H_2O$	70 g
Distilled water to	1000 ml

The solution was sterilized by filtration.

Solution B (40% glucose)

Glucose	40 g
Distilled water to	100 ml

This solution was sterilized by filtration.

Solution C (Agar base)

Agar, Merck	16.7 g
Distilled water to	1000 ml

Solution C was autoclaved for 15 minutes at 121°C. After cooling to 60°C, 450 ml of solution C was aseptically added 25 ml solution A and 25 ml solution B.

Final Report

Study Title	SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes
Test Article	SP 387/TL1
Author	[redacted]
Sponsor	Novozymes A/S Safety and Toxicology Krogshoejvej 36 DK-2880 Bagsvaerd DENMARK
Study Monitor	[redacted]
Test Facility	Covance Laboratories Ltd Otley Road, Harrogate North Yorkshire HG3 1PY ENGLAND
Covance Study Number	1974/63
Covance Report Number	1974/63-D6172
Novozymes Reference Number	20076031
Report Issued	September 2007
Page Number	1 of 45

COVANCE
THE DEVELOPMENT SERVICES COMPANY

STUDY DIRECTOR AUTHENTICATION AND GLP COMPLIANCE STATEMENT

SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes

I, the undersigned, hereby declare that the work was performed under my supervision and that the findings provide a true and accurate record of the results obtained.

The study was performed in accordance with the agreed protocol and with Covance Laboratories Limited Standard Operating Procedures, unless otherwise stated, and the study objectives were achieved.

The study was conducted in compliance with the United Kingdom Good Laboratory Practice Regulations 1999, Statutory Instrument No. 3106 as amended by the Good Laboratory Practice (Codification Amendments Etc.) Regulations 2004 and the OECD Principles on Good Laboratory Practice (revised 1997, issued January 1998) ENV/MC/CHEM (98) 17.

[redacted]

Study Director

12 September 07

Date

QUALITY ASSURANCE STATEMENT

SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes

This study has been reviewed by the Quality Assurance Unit of Covance Laboratories Ltd. and the report accurately reflects the raw data. The following inspections were conducted and findings reported to the study director (SD) and associated management.

Critical procedures, which are performed routinely in an operational area, may be audited as part of a "process" inspection program. This can be in addition to phases scheduled on an individual study basis. Selected process inspections conducted and considered applicable to this study are included below.

In addition to the inspection programmes detailed below, a facility inspection programme is also operated. Details of this programme, which covers all areas of the facility annually (at a minimum), are set out in standard operating procedures.

Inspection Dates			Date Reported to SD and SD Management
From	To	Phase	
24 May 2007	24 May 2007	Protocol Review	24 May 2007
11 Jul 2007	11 Jul 2007	Slide Analysis	11 Jul 2007
09 Aug 2007	09 Aug 2007	Protocol Amendment Review	09 Aug 2007
13 Aug 2007	21 Aug 2007	Draft Report and Data Review	21 Aug 2007
10 Sep 2007	10 Sep 2007	Final Report Review	10 Sep 2007

Process

Inspection Dates			Date Reported to SD and SD Management
From	To	Phase	
22 May 2007	22 May 2007	Culture Establishment	22 May 2007
30 May 2007	30 May 2007	Stock Solution Preparation	30 May 2007
05 Jun 2007	05 Jun 2007	Dose Preparation	05 Jun 2007
07 Jun 2007	07 Jun 2007	Test Article Dilutions	07 Jun 2007
11 Jun 2007	11 Jun 2007	Slide Decoding	12 Jun 2007
13 Jun 2007	13 Jun 2007	Slide Staining	13 Jun 2007
20 Jun 2007	20 Jun 2007	Slide Analysis	20 Jun 2007
20 Jun 2007	20 Jun 2007	Dose Preparation	20 Jun 2007
27 Jun 2007	27 Jun 2007	Historical Control Ranges	27 Jun 2007
11 Jul 2007	11 Jul 2007	S9 Mix Preparations	11 Jul 2007

[redacted] 12 Sept 2007

Quality Assurance Unit — Date

REVIEWING SCIENTIST'S STATEMENT

SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes

I, the undersigned, hereby declare that I have reviewed this report in conjunction with the Study Director and that the interpretation and presentation of the data in the report are consistent with the results obtained.

[redacted] _____ 5 September 2007

Scientist Date

RESPONSIBLE PERSONNEL

SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes

The following personnel were responsible for key elements of the study:

Study Director [redacted][1]
Study Supervisor
Study Monitor

[1] Located at Novozymes A/S

ARCHIVE STATEMENT

SP 387/TL1: Induction of chromosome aberrations in cultured human peripheral blood lymphocytes

All primary data, or authenticated copies thereof, specimens and the final report will be retained in the Covance Laboratories Limited archives for one year after issue of the final report. At the end of this specified archive period the Sponsor will be contacted to determine whether the data should be returned, retained or destroyed on their behalf. Sponsors will be notified of the financial implications of each of these options at that time.

Specimens or samples requiring frozen storage at Covance are specifically excluded from the above. These will be retained for as long as the material permits further evaluation, up to three months after issue of the draft report. At this time, the Sponsor will be contacted to determine whether samples should be returned, retained or destroyed on their behalf. Any financial implications of these options will also be notified at this time. Samples will not be destroyed without prior approval of the Study Director.

CONTENTS

SUMMARY

SP 387/TL1 was tested in an *in vitro* cytogenetics assay using duplicate human lymphocyte cultures prepared from the pooled blood of three female donors in two independent experiments. Treatments covering a broad range of concentrations, separated by narrow intervals, were performed both in the absence and presence of metabolic activation (S-9). The test article was formulated in sterile water for injection (purified water) and the highest concentration used, 5000 µg/mL, is an acceptable maximum concentration for *in vitro* chromosome aberration studies according to current regulatory guidelines.

In Experiment 1, treatment in the absence and presence of S-9 was for 3 hours followed by a 17 hour recovery period prior to harvest (3+17). The S-9 used was prepared from a rat liver post-mitochondrial fraction (S-9) from Aroclor 1254 induced animals. The test article concentrations for chromosome analysis were selected by evaluating the effect of SP 387/TL1 on mitotic index. Chromosome aberrations were analysed at three concentrations (see below).

S-9	Treatment + recovery (hours)	Vehicle control	Concentration (µg/mL) SP 387/TL1	Percentage Cytotoxicity †
-	3+17	0[a]	2813, 3750, 5000	0%
+	3+17	0[a]	2813, 3750, 5000	0%

[a] Vehicle control was purified water only
† At highest analysed concentration

In Experiment 2, treatment in the absence of S-9 was continuous for 20 hours (20+0). Treatment in the presence of S-9 was for 3 hours only followed by a 17 hour recovery period prior to harvest (3+17). Chromosome aberrations were analysed at three concentrations (see below).

S-9	Treatment + recovery (hours)	Vehicle control	Concentration (µg/mL) SP 387/TL1	Percentage Cytotoxicity †
-	20+0	0[a]	3200, 4000, 5000	33%
+	3+17	0[a]	3200, 4000, 5000	0%

[a] Vehicle control was purified water only
† At highest analysed concentration

Appropriate negative (vehicle) control cultures were included in the test system in both experiments under each treatment condition. The proportion of cells with structural aberrations in these cultures fell within historical vehicle control ranges. 4-Nitroquinoline 1-oxide (NQO) and Cyclophosphamide (CPA) were employed as positive control chemicals in the absence and presence of rat liver S-9 respectively. Cells receiving these were sampled in each experiment, 20 hours after the start of treatment; both compounds induced statistically significant increases in the proportion of cells with structural aberrations.

Treatment of cultures with SP 387/TL1 in the absence and the presence of metabolic activation (S-9) [both experiments] resulted in frequencies of cells with structural chromosome aberrations (excluding gaps), which were similar to those observed in concurrent vehicle control cultures for all concentrations analysed. The aberrant cell frequency of all SP 387/TL1 treated cultures fell within (or very close to) current historical vehicle control (normal) ranges.

No increases in the frequency of cells with numerical aberrations, which exceeded the historical negative control range were observed in cultures treated with SP 387/TL1 in the absence and presence of S-9 (both experiments).

It is concluded that SP 387/TL1 did not induce chromosome aberrations in cultured human peripheral blood lymphocytes when tested to 5000 µg/mL, an acceptable maximum concentration for chromosome aberration studies according to current regulatory guidelines, in both the absence and presence of a rat liver metabolic activation system (S-9).

INTRODUCTION

Chromosome defects are recognised as the basis of a number of human genetic diseases (1).

The purpose of the *in vitro* chromosome aberration test is to identify agents that cause structural chromosome aberrations in cultured mammalian cells and there is a large database on the use of chromosomal assays for screening purposes (2). The use of human peripheral blood lymphocytes is recommended because the cells are only used in short-term culture and maintain a stable karyotype (3). Experiments with these cells can also be performed in conjunction with a rat liver metabolising system (S-9) since, for short incubation periods, no toxicity is induced by the liver homogenate itself. Increases in numerical chromosome aberrations can be detected but the assay is not specifically designed to evaluate potential to induce aneuploidy or polyploidy.

In the first instance, cells are exposed to the test article both in the absence and presence of rat liver S-9 (from rats induced with Aroclor 1254) for 3 hours and sampled at 20 hours after the beginning of treatment. This is equivalent to approximately one and a half times the average generation time of cultured lymphocytes from the panel of donors used in this laboratory. As a number of chemicals have been reported as only exerting positive effects following prolonged treatment (4, 5, 6), provision was made for a second experiment involving continuous treatment for 20 hours in the absence of S-9. This, and a repeat treatment in the presence of S-9, using a different spacing of test article concentrations, was performed in the event of a negative result in Experiment 1 (6).

Some chemicals (e.g. nucleoside/tide analogues or nitrosamides) may be more readily detected by treatment/sampling times longer than 20 hours (6). Provision was therefore made for sampling at later times for test articles known to belong to such chemical classes. In this study, further sampling times were not required.

The objective of this study was to evaluate the clastogenic potential of SP 387/TL1 by examining its effects on the chromosomes of cultured human peripheral blood lymphocytes treated in the absence and presence of a rat liver metabolising system (S-9). The test methodology in this study is in accordance with current literature and complies with the following regulatory guidelines: OECD Guideline 473 (1997) and the ICH Tripartite Harmonised Guideline on Genotoxicity: Specific Aspects of Regulatory Tests (1995) (6, 7, 8).

This study was performed according to the protocol and one amendment.

The study was initiated on 21 May 2007. Experimental work started on 29 May 2007 and was completed on 19 July 2007. The study completion date is considered to be the date the Study Director signs the final report.

MATERIALS

Test article

SP 387/TL1, batch number PPF 26813, was a brown liquid. It was received on 16 May 2007 and stored at frozen at -20°C nominal in the dark. Purity (Activity) was stated as 117 KMTU/g, but for the purposes of this study was considered as 100%. The expiry date was given as 14 March 2017. The certificate of analysis, provided by the Sponsor, is presented in Appendix 7. The test article information and certificate of analysis provided by the Sponsor are considered an adequate description of the characterisation, purity and stability of the test article. Determinations of stability and characteristics of the test article were the responsibility of the Sponsor.

SP 387/TL1 is a high molecular weight protein (approximately 25 kDa), which was formulated in purified water to a concentration of 50 mg/mL (weighed out as received), equivalent to 5000 µg/mL final concentration following dilution into the test system (the recommended maximum for *in vitro* chromosome aberration studies according to current regulatory guidelines).

The stock solutions were membrane filter-sterilised (Pall Acrodisc 32, pore size, 0.2 µm) and subsequent dilutions made using sterile purified water. The test article solutions were protected from light and used within approximately 3 hours of initial formulation as follows:

Experiment 1 Concentration of treatment solution (mg/mL)	Final concentration (µg/mL)	Hours treatment + hours recovery 3+17 -S-9	 3+17 +S-9
2.112	211.2	✓	✓
2.816	281.6	✓	✓
3.754	375.4	✓	✓
5.006	500.6	✓	✓
6.674	667.4	✓	✓
8.899	889.9	✓	✓
11.87	1187	✓	✓
15.82	1582	✓	✓
21.09	2109	✓	✓
28.13	2813	✓	✓
37.50	3750	✓	✓
50.00	5000	✓	✓

✓ Indicates concentration tested

Experiment 2 Concentration of treatment solution (mg/mL)	Final concentration (µg/mL)	Hours treatment + hours recovery 20+0 -S-9	3+17 +S-9
6.711	671.1	✓	
8.389	838.9	✓	
10.49	1049	✓	
13.11	1311	✓	
16.38	1638	✓	✓
20.48	2048	✓	✓
25.60	2560	✓	✓
32.00	3200	✓	✓
40.00	4000	✓	✓
50.00	5000	✓	✓

✓ Indicates concentration tested

Changes in osmolality of more than 50 mOsm/kg, and fluctuations in pH of more than one unit, can give rise to chromosome aberrations (9, 10).

Measurements on post-treatment media in the absence and presence of S-9 indicated that the test article had no marked effect on osmolality (greater than a shift of 50 mOsm/kg) or pH (shift of greater than 1 pH unit) as compared to concurrent vehicle controls.

Controls

Sterile purified water was added to cultures designated as negative controls as described in the methods section of this report. The positive control chemicals were dissolved in sterile anhydrous analytical grade dimethyl sulphoxide (DMSO), frozen down and thawed out immediately prior to use as follows:

Chemical	Supplier	Concentration of treatment solution (mg/mL)	Final concentration (µg/mL)	S-9
4-Nitroquinoline 1-oxide (NQO)	Sigma-Aldrich Chemical Co, Poole, UK	0.250	2.50	-
		0.500	5.00	-
Cyclophosphamide (CPA)	Sigma-Aldrich Chemical Co, Poole, UK	0.625	6.25	+
		1.25	12.5	+

Cells treated with 2.50 µg NQO/mL and 6.25 µg CPA/mL (Experiment 1) or 5.00 µg NQO/mL and 12.5 µg CPA/mL (Experiment 2) gave satisfactory responses in terms of quality and quantity of mitoses and extent of chromosomal damage. These were selected for analysis.

Metabolic activation system

The mammalian liver post-mitochondrial fraction (S-9) used for metabolic activation was obtained from Molecular Toxicology Incorporated, USA where it is prepared from male Sprague Dawley rats induced with Aroclor 1254. The batches of MolTox™ S-9 were stored frozen in aliquots at -80°C nominal prior to use. Each batch was checked by the manufacturer for sterility, protein content, ability to convert known promutagens to bacterial mutagens and cytochrome P-450-catalyzed enzyme activities (alkoxyresorufin-O-dealkylase activities). The quality control statements, relating to the batches of S-9 preparation used, are included in Appendix 6 of this report.

Treatment was carried out both in the absence and presence of S-9. The S-9 mix was prepared in the following way:

Glucose-6-phosphate (180 mg/mL), NADP (25 mg/mL), Potassium chloride (KCl) (150 mM) and rat liver S-9 were mixed in the ratio 1:1:1:2. For all cultures treated in the presence of S-9 an aliquot of the resulting mix was added to each cell culture to achieve the required final concentration of the test article in a total of 10 mL. The final concentration of liver homogenate in the test system was 2%.

Cultures treated in the absence of S-9 received an equivalent volume of 150 mM KCl.

Blood cultures

Blood from three healthy, non-smoking female volunteers was used for each experiment of this study:

Experiment	Donor Sex	Donor Age (years)	Donor Identity
1	Female	24, 33, 27	7811, 6816, 9679
2	Female	29, 26, 27	0578, 7619, 9679

No volunteer was suspected of any virus infection or exposed to high levels of radiation or hazardous chemicals. The measured cell cycle time of the donors used at Covance falls within the range 13 +/- 1.5 hours. For each experiment, an appropriate volume of whole blood was drawn from the peripheral circulation into heparinised tubes within two days prior to culture initiation. Blood was stored refrigerated and pooled using equal volumes from each donor prior to use.

Whole blood cultures were established in sterile disposable centrifuge tubes by placing 0.4 mL of pooled heparinised blood into 8.1 mL HEPES-buffered RPMI medium containing 20% (v/v) heat inactivated foetal calf serum and 50 µg/mL gentamycin, so that the final volume following addition of S-9 mix or KCl and the test article in its chosen vehicle is 10 mL. Phytohaemagglutinin (PHA, reagent grade) was included in the culture medium at a concentration of approximately 2% of culture to stimulate the lymphocytes to divide. Blood cultures were incubated at 37°C±1°C for approximately 48 hours and rocked continuously.

METHODS

The test system was suitably labelled (using a colour-coded procedure) to clearly identify the study number, experiment number, treatment time, test article concentration, positive and negative controls.

Immediately prior to treatment, all positive control cultures had 0.9 mL culture medium added to give a final pre-treatment volume of 9.4 mL.

S-9 mix or KCl (0.5 mL per culture) was added appropriately. Quadruplicate cultures (A, B, C and D) were treated with the vehicle and duplicate cultures (A, B) treated with the test article at appropriate concentrations (1 mL per culture). Additional duplicate cultures were treated with 0.1 mL of the positive control chemicals.

Experiment 1 comprised a 3 hour treatment + and -S-9 followed by a 17 hour recovery period (3+17). Experiment 2 comprised a 3 hour treatment +S-9 followed by a 17 hour recovery period (3+17) and a 20 hour continuous treatment -S-9 (20+0). The final culture volume was 10 mL. Cultures were incubated at 37°C ± 1°C for the designated exposure time.

This scheme is illustrated below:

Treatment	S-9	Number of cultures	
		3+17*	20+0*
Experiment 1			
Negative control	-	4	
	+	4	
Test article	-	2	
(all concentrations)	+	2	
Positive controls	-	2	
(all concentrations)	+	2	
Experiment 2			
Negative control	-		4
	+	4	
Test article	-		2
(concentrations as appropriate)	+	2	
Positive controls	-		2
(all concentrations)	+	2	

* Hours treatment + hours recovery

Cultures receiving continuous treatment retained medium through to harvest. Pulse treatments were for 3 hours only. Cells were then pelleted (approximately 300 x 'g',

10 minutes), washed twice with sterile saline (pre-warmed at approximately 37°C) and resuspended in fresh pre-warmed medium containing foetal calf serum and gentamycin. Pulse treatment cultures were further incubated before harvesting.

Summary of treatment conditions

Treatment		S-9	Duration of treatment (hours)	Harvest time (hours after start of treatment)
Continuous	20+0	-	20	20
Pulse	3+17	+	3	20
	3+17	-	3	20

Harvesting

Approximately 2 hours prior to harvest, colchicine was added to give a final concentration of approximately 1 µg/mL to arrest dividing cells in metaphase. At the defined sampling time cultures were centrifuged at approximately 300 x 'g' for 10 minutes; the supernatant was carefully removed and cells were resuspended in 4 mL pre-warmed hypotonic (0.075 M) KCl and incubated at 37°C±1ºC for 15 minutes to allow cell swelling to occur. Cells were then fixed by dropping the KCl suspension into fresh, cold methanol/glacial acetic acid (3:1, v/v). The fixative was changed by centrifugation (approximately 300 x 'g', 10 minutes) and resuspension. This procedure was repeated several times (centrifuging at approximately 1250 x 'g', two to three minutes) until the cell pellets were clean.

Slide preparation

Lymphocytes were kept in fixative at 1-10ºC before slides were made but slides were not made on the day of harvest to ensure that cells were adequately fixed. Cells were centrifuged and resuspended in a minimal amount of fresh fixative (if required) to give a milky suspension. Several drops of 45% (v/v) aqueous acetic acid were added to each suspension to enhance chromosome spreading, and several drops of suspension were transferred on to clean microscope slides labelled with the appropriate study details. Slides were flamed, as necessary, to improve quality. After the slides had dried the cells were stained for 5 minutes in filtered 4% (v/v) Giemsa in pH 6.8 buffer. The slides were rinsed, dried and mounted with coverslips.

Selection of concentrations for chromosome analysis

Slides were examined, uncoded, for MI to determine whether chemically induced mitotic inhibition had occurred.

The Mitotic Index (MI) is a measure of the proliferative state of the culture at a particular moment in time and was calculated as follows:

$$MI = \frac{\textit{number of cells in mitosis}}{\textit{Total number of cells observed}} \; x100$$

The highest concentration for chromosome analysis from cultures sampled at 20 hours should be one at which at least (or approximately) 50% mitotic inhibition has occurred or should be the highest concentration tested.

Slides from the highest selected concentration and two lower concentrations were taken for microscopic analysis.

For each treatment regime, two vehicle control cultures were analysed for chromosome aberrations. Slides from the remaining vehicle control cultures were only to be analysed if considered necessary, for example, to help resolve an equivocal result. In this study analysis of additional vehicle control cultures was not required.

A single positive control concentration, which gave satisfactory responses in terms of quality and quantity of mitoses and extent of chromosomal damage, was analysed.

Mitotic index data and the results of concentration selection are presented in the results section of this report.

Slide analysis

Slides from NQO and CPA positive control treatments were checked to ensure that the system was operating satisfactorily. All slides for analysis were coded using randomly generated letters by an individual not connected with the scoring of the slides. Labels with only the study number, experiment number, the sex of the donor and the code were used to cover treatment details on the slides.

Where appropriate, one hundred metaphases from each code were analysed for chromosome aberrations. Where 10 cells with structural aberrations (excluding gaps)

were noted on a slide, analysis may have been terminated. Only cells with 44 to 46 chromosomes were considered acceptable for analysis. Any cell with more than 46 chromosomes (that is, polyploid, hyperdiploid or endoreduplicated cells) observed during this evaluation was noted and recorded separately. Structural aberrations were classified according to the ISCN scheme (11) as detailed in Appendix 2.

Under this scheme, a gap is defined as a discontinuity less than the width of the chromatid with no evidence of displacement of the fragment and a deletion is defined as a discontinuity greater than the width of the chromatid and/or evidence of displacement of the fragment. Observations (summarised in Appendix 3 and Appendix 4) were recorded on raw data sheets with the microscope stage co-ordinates of the first five cells, all aberrant cells and the last cell scored.

Slide analysis was performed by competent analysts trained in the applicable Covance Laboratories Harrogate (CLEH) standard operating procedures. Although physically located remote from the CLEH facility, all analysts were subject to CLEH management and GLP control systems (including QA inspection). All slides and raw data generated have been returned to CLEH for archiving.

Analysis of results

Treatment of data

After completion of scoring and decoding of slides the numbers of aberrant cells in each culture were categorised as follows:

1. cells with structural aberrations including gaps

2. cells with structural aberrations excluding gaps

3. polyploid, endoreduplicated or hyperdiploid cells.

The totals for category 2 in negative control cultures were compared with the current laboratory historical negative control (normal) ranges to determine whether the assay was acceptable or not (see Acceptance criteria). The totals for category 2 in test article treated cultures were also compared with normal ranges. The statistical significance of increases in the percentage of cells with structural aberrations for any data set was only to be taken into consideration if the frequency of aberrant cells in both replicate cultures at one or more concentrations exceeds the normal range. The statistical method used would be Fisher's exact test (12). Probability values of $p \leq 0.05$ were accepted as significant. The proportions

of cells in categories 1 and 3 were also examined in relation to normal ranges and may be analysed by Fisher's exact test.

The proportions of aberrant cells in each replicate were also used to establish acceptable heterogeneity between replicates by means of a binomial dispersion test (12). Probability values of $p \leq 0.05$ were to be accepted as significant.

Acceptance criteria

The assay was considered valid if all the following criteria were met:

1. The binomial dispersion test demonstrated acceptable heterogeneity between replicate cultures

2. The proportion of cells with structural aberrations (excluding gaps) in negative control cultures fell within the historical negative control (normal) range

3. At least 160 cells out of an intended 200 were suitable for analysis at each concentration, unless 10 or more cells showing structural aberrations (per slide) other than gaps only were observed during analysis

4. The positive control chemicals induced statistically significant increases in the proportion of cells with structural aberrations.

Evaluation criteria

The data were evaluated as to whether exposure to the test article was associated with:

1. A proportion of cells with structural aberrations at one or more concentrations exceeded the historical negative control (normal) range in both replicate cultures

2. A statistically significant increase in the proportion of cells with structural aberrations (excluding gaps) was observed at such concentrations

3. There was a concentration-related trend in the proportion of cells with structural aberrations (excluding gaps).

The test article was to be considered positive in this assay if all of the above criteria were met.

The test article was to be considered negative in this assay if none of the above criteria were met.

Results which only partially satisfied the above criteria were to be dealt with on a case-by-case basis. Evidence of a concentration-related effect is considered useful but not essential in the evaluation of a positive result (13). Biological relevance was taken into account, for example consistency of response within and between concentrations and (where applicable) between experiments, or effects occurring only at high or very toxic concentrations, and the types and distribution of aberrations.

RESULTS

Selection of concentrations for cytogenetic analysis

The results of mitotic index determinations for the treatments in Experiment 1 were as follows:

Treatment (µg/mL)	Mitotic index (%)					
	3+17 hours, -S-9			**3+17 hours, +S-9**		
	A/C	B/D	MIH*	A/C	B/D	MIH*
Vehicle	6.8/6.1	6.7/9.6	-	8.3/9.5	9.0/5.4	-
211.2	NS	NS	-	NS	NS	-
281.6	NS	NS	-	NS	NS	-
375.4	NS	NS	-	NS	NS	-
500.6	NS	NS	-	NS	NS	-
667.4	NS	NS	-	NS	NS	-
889.9	NS	NS	-	NS	NS	-
1187	NS	NS	-	NS	NS	-
1582	NS	NS	-	NS	NS	-
2109	9.1	9.7	0	8.7	6.8	4
2813	**9.1**	**10.8**	**0**	**7.4**	**8.9**	**0**
3750	**10.0**	**8.4**	**0**	**8.1**	**7.5**	**3**
5000	**8.1**	**9.6**	**0**	**9.1**	**9.6**	**0**

NS = not scored

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)
(Slides from vehicle control cultures C and D scored for mitotic index only)

A/C, B/D refers to the number of cultures treated (four [A, B, C, D] for vehicle controls and two [A, B] for test article and positive controls)

Shaded concentrations selected for analysis

The results of mitotic index determinations for the treatments in Experiment 2 were as follows:

Treatment (µg/mL)	Mitotic index (%)					
	20+0 hours, -S-9			**3+17 hours, +S-9**		
	A/C	B/D	MIH*	A/C	B/D	MIH*
Vehicle	14.8/16.0	17.3/12.9	-	18.8/24.3	23.6/23.8	-
671.1	15.6	23.4	0	NT	NT	-
838.9	25.0	16.7	0	NT	NT	-
1049	23.2	20.4	0	NT	NT	-
1311	17.4	20.0	0	NT	NT	-
1638	21.7	26.1	0	21.7	26.1	0
2048	18.3	17.9	0	24.3	20.2	2
2560	17.5	20.5	0	26.0	26.6	0
3200	**14.0**	**16.1**	**1**	**28.6**	**26.4**	**0**
4000	**12.1**	**17.0**	**5**	**25.3**	**25.2**	**0**
5000	**9.5**	**10.9**	**33**	**24.5**	**24.1**	**0**

NT = not tested

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)
(Slides from vehicle control cultures C and D scored for mitotic index only).

A/C, B/D refers to the number of cultures treated (four [A, B, C, D] for vehicle controls and two [A, B] for test article and positive controls)

Shaded concentrations selected for analysis

Chromosome aberration analysis

Raw data

The raw data for the observations on the test article plus positive and negative controls are retained by Covance Laboratories Limited. A summary of the number of cells containing structural aberrations is given in Appendix 1 for each of the different treatment regimes in Experiment 1 and 2. The numbers and types of structural aberrations seen per cell are given in Appendix 3. Frequencies of cells with numerical aberrations observed are given in Appendix 4.

Validity of study

The data in Appendix 1 and Appendix 5 confirm that:

1. the binomial dispersion test demonstrated acceptable heterogeneity between replicate cultures (Appendix 1)

2. the proportion of cells with structural aberrations (excluding gaps) in negative control cultures fell within the historical negative control (normal) range (Appendix 5)

3. at least 160 cells out of an intended 200 were suitable for analysis at each concentration, unless 10 or more cells showing structural aberrations (per slide) other than gaps only were observed during analysis (Appendix 1)

4. the positive control chemicals induced statistically significant increases in the proportion of cells with structural aberrations (Appendix 1).

Analysis of data

Structural aberrations

Treatment of cultures with SP 387/TL1 in the absence and the presence of metabolic activation (S-9) [both experiments] resulted in frequencies of cells with structural chromosome aberrations (excluding gaps), which were similar to those observed in concurrent vehicle control cultures for all concentrations analysed. The aberrant cell frequency of the majority of SP 387/TL1 treated cultures fell within current historical vehicle control (normal) ranges. The exceptions to this were observed in single cultures at 3750 µg/mL following 3+17 hour +S-9 treatment in Experiment 1 and at 3200 µg/mL and 5000 µg/mL following 3+17 hour +S-9 treatment in Experiment 2. In all instances the increases above historical were marginal (3% versus a normal range of 0-2%), were not observed in the replicate cultures and were not concentration related. They were also noted to be within the observed historical range (0-3%). As such, these marginal increases were considered spurious and of no biological importance.

Numerical aberrations

No increases in the frequency of cells with numerical aberrations, which exceeded the historical negative control range were observed in cultures treated with SP 387/TL1 in the absence and presence of S-9 (both experiments).

CONCLUSION

It is concluded that SP 387/TL1 did not induce chromosome aberrations in cultured human peripheral blood lymphocytes when tested to 5000 µg/mL, an acceptable maximum concentration for chromosome aberration studies according to current regulatory guidelines, in both the absence and presence of a rat liver metabolic activation system (S-9).

REFERENCES

1 Mitelman F (1991) "Catalogue of Chromosome Aberrations in Cancer, 4th ed". New York: Wiley-Liss

2 Preston R J, Au W, Bender M A, Brewen J G, Carrano A V, Heddle J A, McFee A F, Wolff S and Wassom J S (1981) Mammalian *in vivo* and *in vitro* cytogenetic assays. A report of the U.S. EPA's Gene-Tox Program. Mutation Research 87, 143-188

3 Evans H J and O'Riordan M L (1975) Human lymphocytes for analysis of chromosome aberrations in mutagen tests. Mutation Research 31, 135-148

4 Ishidate M Jr (1987) Chromosomal aberration test *in vitro* (Ed) L.I.C. Inc. Tokyo

5 Galloway S M, Armstrong M J, Reuben C, Colman S, Brown B, Cannon C, Bloom A D, Nakamura F, Ahmed N, Duk S, Rimpo J, Margolin B H, Resnick M A, Anderson B and Zeiger E (1987) Chromosome aberrations and sister chromatid exchanges in Chinese hamster ovary cells: Evaluations of 108 chemicals. Environ Mol Mutagenesis 10, Suppl 10, 1-175

6 Galloway S M, Aardema M J, Ishidate M, Ivett J L, Kirkland D J, Morita T, Mosesso P, Sofuni T (1994) Report from working group on *in vitro* tests for chromosomal aberrations. In: Sheila M. Galloway (Ed), Report of the International Workshop on Standardisation of Genotoxicity Test Procedures. Mutation Research 312, 241-261

7 OECD (1997) 'Genetic Toxicology: *In vitro* mammalian Cytogenetic Test'. In OECD Guidelines for the testing of chemicals. OECD Paris, Test Guideline 473

8 European Agency for the Evaluation of Medicinal Products (1995) ICH Topic S 2 A. Genotoxicity: Guidance on Specific Aspects of Genotoxicity Tests for Pharmaceuticals. ICH Harmonised Tripartite Guideline

9 Scott D, Galloway S M, Marshall R R, Ishidate M, Brusick D, Ashby J and Myhr B C (1991) Genotoxicity under extreme culture conditions. A report from ICPEMC Task Group 9. Mutation Research 257, 147-204

10 Brusick D (1986) Genotoxic effects in cultured mammalian cells produced by low pH treatment conditions and increased ion concentrations. Environ Mutagenesis 8, 879-886

11 ISCN (1995) An International System for Human Cytogenetic Nomenclature. Editor Felix Mitelman; S Karger, Switzerland

12 Richardson C, Williams D A, Allen J A, Amphlett G, Chanter D O and Phillips B (1989) Analysis of data from *in vitro* cytogenetic assays. In "Statistical Evaluation of Mutagenicity Test Data", (UKEMS Guidelines Sub-committee Report, Part III), Ed D J Kirkland, Cambridge University Press, pp 141-154

13 Scott D, Dean B J, Danford N D and Kirkland D J (1990) Metaphase chromosome aberration assays *in vitro*. Basic Mutagenicity Tests; UKEMS recommended procedures. Ed. Kirkland D J.

APPENDICES

Appendix 1
SP 387/TL1: cells with structural aberrations

Table 1
3 hour treatment -S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Replicate	Cells Scored	Cells with Aberrations Including Gaps	Cells with Aberrations Excluding Gaps	MIH* (%)
Vehicle	A	100	3	2	
	B	100	0	0	
	Totals	200	3	2	-
2813	A	100	1	0	
	B	100	0	0	
	Totals	200	1	0	0
3750	A	100	3	3	
	B	100	2	1	
	Totals	200	5	4	0
5000	A	100	0	0	
	B	100	2	2	
	Totals	200	2	2	0
NQO, 2.50	A	97	**20**	**16**	
	B	79	**21**	**20**	
	Totals	176	41	36[a]	

Binomial Dispersion Test χ^2= 5.06, not significant
[a] Statistical significance $p \leq 0.001$

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)

Numbers highlighted exceed historical negative control range (Appendix 5)

Table 2
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Replicate	Cells Scored	Cells with Aberrations Including Gaps	Cells with Aberrations Excluding Gaps	MIH* (%)
Vehicle	A	100	1	0	
	B	100	2	2	
	Totals	200	3	2	-
2813	A	100	0	0	
	B	100	2	2	
	Totals	200	2	2	0
3750	A	100	**4**	**3**	
	B	100	1	1	
	Totals	200	5	4	3
5000	A	100	3	2	
	B	100	3	1	
	Totals	200	6	3	0
CPA, 6.25	A	45	**21**	**20**	
	B	34	**21**	**20**	
	Totals	79	42	40[a]	

Binomial Dispersion Test χ^2= 5.40, not significant
[a] Statistical significance $p \leq 0.001$

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)

Numbers highlighted exceed historical negative control range (Appendix 5)

Table 3
20 hour treatment -S-9, 0 hour recovery (20+0), Experiment 2
Donor sex: female

Treatment (µg/mL)	Replicate	Cells Scored	Cells with Aberrations Including Gaps	Cells with Aberrations Excluding Gaps	MIH* (%)
Vehicle	A	100	0	0	
	B	100	2	2	
	Totals	200	2	2	-
3200	A	100	2	1	
	B	100	2	1	
	Totals	200	4	2	1
4000	A	100	1	0	
	B	100	0	0	
	Totals	200	1	0	5
5000	A	100	3	2	
	B	100	4	3	
	Totals	200	7	5	33
NQO, 5.00	A	37	**22**	**20**	
	B	36	**22**	**20**	
	Totals	73	44	40[a]	

Binomial Dispersion Test χ^2= 2.23, not significant
[a] Statistical significance p ≤0.001

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)

Numbers highlighted exceed historical negative control range (Appendix 5)

Table 4
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 2
Donor sex: female

Treatment (µg/mL)	Replicate	Cells Scored	Cells with Aberrations Including Gaps	Cells with Aberrations Excluding Gaps	MIH* (%)
Vehicle	A	100	2	2	
	B	100	0	0	
	Totals	200	2	2	-
3200	A	100	3	2	
	B	100	**4**	**3**	
	Totals	200	7	5	0
4000	A	100	0	0	
	B	100	3	2	
	Totals	200	3	2	0
5000	A	100	0	0	
	B	100	3	**3**	
	Totals	200	3	3	0
CPA, 12.5	A	33	**21**	**20**	
	B	25	**20**	**20**	
	Totals	58	41	40[a]	

Binomial Dispersion Test χ^2= 7.29, not significant
[a] Statistical significance $p \leq 0.001$

*Mitotic inhibition (%) = [1 - (mean MI_T/mean MI_C)] x 100%
(where T = treatment and C = negative control)

Numbers highlighted exceed historical negative control range (Appendix 5)

Appendix 2
Abbreviations and classification of observations

abs	=	aberrations
rep	=	replicate
tot	=	total

Gaps (g)

csg	=	chromosome gap
ctg	=	chromatid gap

Chromosome deletions (chr del)

del	=	chromosome deletion
d min	=	double minute
f	=	isolocus fragment

Chromosome exchanges (chr exch)

t	=	interchange between chromosomes (e.g. reciprocal translocation)
inv	=	chromosome intrachange (e.g. pericentric inversion)
dic	=	dicentric
dic+f	=	dicentric with accompanying fragment
acr	=	acentric ring
r+f	=	centric ring with accompanying fragment
r	=	centric ring

Chromatid deletions (ctd del)

del	=	chromatid deletion
min	=	single minute

Chromatid exchanges (ctd exch)

qr	=	interchange between chromatids of different chromosomes (e.g. quadriradial)
cx	=	obligate complex interchange
e	=	chromatid intrachange
tr/tr+f	=	isochromatid/chromatid interchange (triradial)/with accompanying fragment
su	=	intra-arm intrachange with sister union of broken ends
nud	=	intra-arm intrachange with non-union of broken ends distally
nup	=	intra-arm intrachange with non-union of broken ends proximally

Other structural aberrations

pvz	=	pulverised cell
mabs	=	multiple aberrations (greater than 7 aberrations per cell or too many aberrations to permit accurate analysis)

Numerical aberrations

E	=	endoreduplicated
H	=	hyperdiploid (47-68 chromosomes)
P	=	polyploid (greater than 68 chromosomes)

Appendix 3
SP 387/TL1: summary of the numbers and types of structural aberrations observed

Table 5
3 hour treatment -S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Rep	Cells *	G	Chr del	Chr exch	Ctd del	Ctd exch	Other	Abs +g	Abs -g
Vehicle	A	100	1	1	0	1	0	0	3	2
	B	100	0	0	0	0	0	0	0	0
	Total	200	1	1	0	1	0	0	3	2
2813	A	100	1	0	0	0	0	0	1	0
	B	100	0	0	0	0	0	0	0	0
	Total	200	1	0	0	0	0	0	1	0
3750	A	100	0	0	0	3	0	0	3	3
	B	100	3	0	0	1	0	0	4	1
	Total	200	3	0	0	4	0	0	7	4
5000	A	100	0	0	0	0	0	0	0	0
	B	100	0	0	0	2	0	0	2	2
	Total	200	0	0	0	2	0	0	2	2
NQO, 2.50	A	97	5	4	0	23	4	0	36	31
	B	79	4	7	0	16	9	0	36	32
	Total	176	9	11	0	39	13	0	72	63

* Total cells examined for structural aberrations
Totals given for each culture may differ from values given in Appendix 1 if cells are observed which have more than one aberration
For abbreviations and classifications see Appendix 2

Table 6
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Rep	Cells *	G	Chr del	Chr exch	Ctd del	Ctd exch	Other	Abs +g	Abs -g
Vehicle	A	100	1	0	0	0	0	0	1	0
	B	100	0	0	0	2	0	0	2	2
	Total	200	1	0	0	2	0	0	3	2
2813	A	100	0	0	0	0	0	0	0	0
	B	100	0	0	0	2	0	0	2	2
	Total	200	0	0	0	2	0	0	2	2
3750	A	100	1	1	0	2	0	0	4	3
	B	100	0	1	0	0	0	0	1	1
	Total	200	1	2	0	2	0	0	5	4
5000	A	100	1	0	0	2	0	0	3	2
	B	100	2	0	0	1	0	0	3	1
	Total	200	3	0	0	3	0	0	6	3
CPA, 6.25	A	45	4	2	0	25	1	2	34	30
	B	34	5	5	0	31	2	1	44	39
	Total	79	9	7	0	56	3	3	78	69

* Total cells examined for structural aberrations
Totals given for each culture may differ from values given in Appendix 1 if cells are observed which have more than one aberration
For abbreviations and classifications see Appendix 2

Table 7
20 hour treatment -S-9, 0 hour recovery (20+0), Experiment 2
Donor sex: female

Treatment (µg/mL)	Rep	Cells *	G	Chr del	Chr exch	Ctd del	Ctd exch	Other	Abs +g	Abs -g
Vehicle	A	100	0	0	0	0	0	0	0	0
	B	100	0	0	0	2	0	0	2	2
	Total	200	0	0	0	2	0	0	2	2
3200	A	100	1	0	0	1	0	0	2	1
	B	100	1	0	0	1	0	0	2	1
	Total	200	2	0	0	2	0	0	4	2
4000	A	100	1	0	0	0	0	0	1	0
	B	100	0	0	0	0	0	0	0	0
	Total	200	1	0	0	0	0	0	1	0
5000	A	100	1	0	0	2	0	0	3	2
	B	100	1	2	0	1	0	0	4	3
	Total	200	2	2	0	3	0	0	7	5
NQO, 5.00	A	37	5	2	1	32	4	0	44	39
	B	36	2	3	0	20	4	4	33	31
	Total	73	7	5	1	52	8	4	77	70

* Total cells examined for structural aberrations
Totals given for each culture may differ from values given in Appendix 1 if cells are observed which have more than one aberration
For abbreviations and classifications see Appendix 2

Table 8
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 2
Donor sex: female

Treatment (µg/mL)	Rep	Cells *	G	Chr del	Chr exch	Ctd del	Ctd exch	Other	Abs +g	Abs -g
Vehicle	A	100	0	0	0	2	0	0	2	2
	B	100	0	0	0	0	0	0	0	0
	Total	200	0	0	0	2	0	0	2	2
3200	A	100	1	3	0	0	0	0	4	3
	B	100	1	0	0	3	0	0	4	3
	Total	200	2	3	0	3	0	0	8	6
4000	A	100	0	0	0	0	0	0	0	0
	B	100	1	0	0	2	0	0	3	2
	Total	200	1	0	0	2	0	0	3	2
5000	A	100	0	0	0	0	0	0	0	0
	B	100	0	1	0	2	0	0	3	3
	Total	200	0	1	0	2	0	0	3	3
CPA, 12.5	A	33	9	13	0	28	3	0	53	44
	B	25	4	8	0	40	1	0	53	49
	Total	58	13	21	0	68	4	0	106	93

* Total cells examined for structural aberrations
Totals given for each culture may differ from values given in Appendix 1 if cells are observed which have more than one aberration
For abbreviations and classifications see Appendix 2

Appendix 4
SP 387/TL1: summary of the numbers and types of numerical aberrations observed

Table 9
3 hour treatment -S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Rep	Cells **	H	E	P	Tot abs	% with num abs
Vehicle	A	101	0	0	1	1	1.0
	B	100	0	0	0	0	0
	Total	201	0	0	1	1	0.5
2813	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
3750	A	101	1	0	0	1	1.0
	B	100	0	0	0	0	0
	Total	201	1	0	0	1	0.5
5000	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
NQO, 2.50	A	97	0	0	0	0	0
	B	79	0	0	0	0	0
	Total	176	0	0	0	0	0

** Total cells examined for numerical aberrations
For abbreviations and classifications see Appendix 2

Table 10
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 1
Donor sex: female

Treatment (µg/mL)	Rep	Cells **	H	E	P	Tot abs	% with num abs
Vehicle	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
2813	A	100	0	0	0	0	0
	B	101	1	0	0	1	1.0
	Total	201	1	0	0	1	0.5
3750	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
5000	A	101	0	0	1	1	1.0
	B	100	0	0	0	0	0
	Total	201	0	0	1	1	0.5
CPA, 6.25	A	45	0	0	0	0	0
	B	34	0	0	0	0	0
	Total	79	0	0	0	0	0

** Total cells examined for numerical aberrations
For abbreviations and classifications see Appendix 2

Table 11
20 hour treatment -S-9, 0 hour recovery (20+0), Experiment 2
Donor sex: female

Treatment (µg/mL)	Rep	Cells **	H	E	P	Tot abs	% with num abs
Vehicle	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
3200	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
4000	A	101	0	1	0	1	1.0
	B	100	0	0	0	0	0
	Total	201	0	1	0	1	0.5
5000	A	101	0	0	1	1	1.0
	B	100	0	0	0	0	0
	Total	201	0	0	1	1	0.5
NQO, 5.00	A	38	1	0	0	1	**2.6**
	B	36	0	0	0	0	0
	Total	74	1	0	0	1	1.4

** Total cells examined for numerical aberrations
Numbers highlighted exceed historical negative control range (Appendix 5)
For abbreviations and classifications see Appendix 2

Table 12
3 hour treatment +S-9, 17 hour recovery (3+17), Experiment 2
Donor sex: female

Treatment (µg/mL)	Rep	Cells **	H	E	P	Tot abs	% with num abs
Vehicle	A	100	0	0	0	0	0
	B	100	0	0	0	0	0
	Total	200	0	0	0	0	0
3200	A	100	0	0	0	0	0
	B	101	0	1	0	1	1.0
	Total	201	0	1	0	1	0.5
4000	A	101	1	0	0	1	1.0
	B	100	0	0	0	0	0
	Total	201	1	0	0	1	0.5
5000	A	100	0	0	0	0	0
	B	101	0	0	1	1	1.0
	Total	201	0	0	1	1	0.5
CPA, 12.5	A	33	0	0	0	0	0
	B	25	0	0	0	0	0
	Total	58	0	0	0	0	0

** Total cells examined for numerical aberrations
For abbreviations and classifications see Appendix 2

Appendix 5
Historical vehicle control ranges for human peripheral blood lymphocyte chromosome aberration (HLC) assay

Females

		Structural aberrations observed on 100 cells scored		Numerical aberrations observed during scoring of structural aberrations	
		Structural aberrations including gaps	Structural aberrations excluding gaps	Polyploid cells	Numerical aberrations (H+E+P)
-S9	Number of studies	46	46	46	46
	Number of cultures	196	196	196	196
	Median	1	0	0	0
	Mean	0.98	0.61	0.31	0.48
	SD	1.08	0.80	0.54	0.73
	Observed range	0 – 5	0 – 4	0 – 3	0 – 3
	95% reference range	**0 – 4**	**0 – 3**	**0 – 2**	**0 – 2**
+S9	Number of studies	46	46	46	46
	Number of cultures	180	180	180	180
	Median	1	0	0	0
	Mean	1.04	0.57	0.32	0.49
	SD	1.09	0.74	0.59	0.71
	Observed range	0 – 5	0 – 3	0 – 2	0 – 3
	95% reference range	**0 – 3**	**0 – 2**	**0 - 2**	**0 – 2**

H = Hyperdiploid, E=Endoreduplicated, P = Polyploid

Reference ranges are calculated from percentiles of the observed distributions.

Calculated in February 2007 by CLEH Statistics, from audited report data of studies started between January 2005 and August 2006.

Appendix 6
Quality control statements for S-9

MOLTOX POST MITOCHONDRIAL SUPERNATANT (S-9)
QUALITY CONTROL & PRODUCTION CERTIFICATE

LOT NO.: 2111
PART NO.: 11-101
VOLUME: 5ml

SPECIES: Rat
STRAIN: Sprague Dawley
SEX: Male
TISSUE: Liver

PREPARATION DATE: January 31, 2007
EXPIRATION DATE: January 31, 2009
BUFFER: 0.154 M KCl
INDUCING AGENT(s): Aroclor 1254 (Monsanto KL615), 500 mg/kg i.p.

REFERENCE: Maron, D & Ames, B. *Mutat Res* **113**:173, 1983
STORAGE: At or below -70°C

BIOCHEMISTRY:

- PROTEIN

35.3mg/ml

Assayed according to the method of Lowry et al., *JBC* **193**:265, 1951 using bovine serum albumin as the standard.

- ALKOXYRESORUFIN-0-DEALKYLASE ACTIVITIES

Activity	P450	Fold - Induction
EROD	IA1, IA2	84.8
PROD	2B1	24.9
BROD	2B1	20.5
MROD	1A2	83.9

Assays for ethoxyresorufin-0-deethylase (EROD), pentoxy-, benzyl- and methoxyresorufin-0-dealkylases (PROD, BROD, & MROD) were conducted using a modification of the methods of Burke, et al., *Biochem Pharm* **34**:3337, 1985. Fold-inductions were calculated as the ratio of the sample vs. uninduced specific activities (SA's). Control SA's (pmoles/min/mg protein) were 38.8, 16.5, 63.1, 8 12.3 for EROD, PROD, BROD and MROD, respectively.

BIOASSAY:

- TEST FOR THE PRESENCE OF ADVENTITIOUS AGENTS

Samples of S-9 were assayed for the presence of contaminating microflora by plating 1.0 ml volumes on Nutrient Agar and Minimal Glucose (Vogel-Bonner E, supplemented with 0.05 mM L-histidine and D-biotin) media. Triplicate plates were read after 40 - 48 h incubation at 35 ± 2°C. The tested samples met acceptance criteria.

- PROMUTAGEN ACTIVATION

No. His+ Revertants	
EtBr/ TA98	CPA/ TA1535
107.6	1268

The ability of the sample to activate ethidium (EtBr) and cyclophosphamide (CPA) to intermediates mutagenic to TA98 and TA1535, respectively, was determined according to Lesca, et al., *Mutation Res* **129**:299, 1984. Data were expressed as revertants per µg EtBr or per mg CPA.

Dilutions of the sample S9, ranging from 0.2 - 10% in S9 mix, were tested for their ability to activate benzo(a)pyrene (BP) and 2-aminoanthracene (2-AA) to intermediates mutagenic to TA100. Assays were conducted using duplicate plates as described by Maron & Ames, (*Mutat Res* **113**:173, 1983).

µl S9 per plate/number *his*+ revertants per plate

Promutagen	0	1	5	10	20	50
BP (5 µg)	121	216	463	635	1126	1437
2-AA (2.5 µg)	104	1276	1784	1837	2235	1817

MOLECULAR TOXICOLOGY, INC.
157 Industrial Park Dr.
Boone, NC 28607
(828) 264-9099

[redacted]

MOLTOX POST MITOCHONDRIAL SUPERNATANT (S-9) QUALITY CONTROL & PRODUCTION CERTIFICATE

LOT NO.: 2112
PART NO.: 11-101
VOLUME: 5ml
SPECIES: Rat
STRAIN: Sprague Dawley
SEX: Male
TISSUE: Liver
PREPARATION DATE: February 6, 2007
EXPIRATION DATE: February 6, 2009
BUFFER: 0.154 M KCl
INDUCING AGENT(s): Aroclor 1254 (Monsanto KL615), 500 mg/kg i.p.
REFERENCE: Maron, D & Ames, B, *Mutat Res* **113**:173, 1983
STORAGE: At or below -70°C

BIOCHEMISTRY:

- PROTEIN

36.6mg/ml

Assayed according to the method of Lowry et al., *JBC* **193**:265, 1951 using bovine serum albumin as the standard.

- ALKOXYRESORUFIN-0-DEALKYLASE ACTIVITIES

Activity	P450	Fold - Induction
EROD	1A1, 1A2	66.0
PROD	2B1	26.2
BROD	2B1	37.7
MROD	1A2	134.4

Assays for ethoxyresorufin-0-deethylase (EROD), pentoxy-, benzyl- and methoxyresorufin-0-dealkylases (PROD, BROD, & MROD) were conducted using a modification of the methods of Burke, et al., *Biochem Pharm* **34**:3337, 1985. Fold-inductions were calculated as the ratio of the sample vs. uninduced specific activities (SA's). Control SA's (pmoles/min/mg protein) were 36.0, 15.6, 46.8, 8 9.8 for EROD, PROD, BROD and MROD, respectively.

BIOASSAY:

- TEST FOR THE PRESENCE OF ADVENTITIOUS AGENTS

Samples of S-9 were assayed for the presence of contaminating microflora by plating 1.0 ml volumes on Nutrient Agar and Minimal Glucose (Vogel-Bonner E, supplemented with 0.05 mM L-histidine and D-biotin) media. Triplicate plates were read after 40 - 48 h incubation at 35 ± 2°C. The tested samples met acceptance criteria.

- PROMUTAGEN ACTIVATION

No. His+ Revertants	
EtBr/ TA98	CPA/ TA1535
64.8	784

The ability of the sample to activate ethidium (EtBr) and cyclophosphamide (CPA) to intermediates mutagenic to TA98 and TA1535, respectively, was determined according to Lesca, et al., *Mutation Res* **129**:299, 1984. Data were expressed as revertants per µg EtBr or per mg CPA.

Dilutions of the sample S9, ranging from 0.2 - 10% in S9 mix, were tested for their ability to activate benzo(a)pyrene (BP) and 2-aminoanthracene (2-AA) to intermediates mutagenic to TA100. Assays were conducted using duplicate plates as described by Maron & Ames, (*Mutat Res* **113**:173, 1983).

	µl S9 per plate/number *his*⁺ revertants per plate					
Promutagen	0	1	5	10	20	50
BP (5 µg)	105	347	612	752	844	790
2-AA (2.5 µg)	101	919	1213	1313	1136	710

MOLECULAR TOXICOLOGY, INC.
157 Industrial Park Dr.
Boone, NC 28607
(828) 264-9099

Appendix 7
Sponsor's documentation of test material

Safety & Toxicology

Date: April 17, 2007
Project no.: DEV 00699
Luna: 2007-19093-01
Ref.: KM

Documentation of Test Material
(Characterization Study no. 20078008)

Product:	**TOX BATCH**
Batch:	**PPF 26813**
Type of enzyme:	**SP387/TL1**
Host organism:	**Fusarium venenatum**
Physical form / Colour:	**Brownish liquid at room temperature**
E.C.:	**3.4.21.4**

Activity:	**117 KMTU/g**
Water (KF):	**86.7 % w/w**
Dry matter:	**13.3 % w/w**
Ash (600°C):	**2.3 % w/w**
Total Organic Solids (TOS):	**11.0 % w/w**
Specific gravity (g/ml):	**1.057 g/ml**
pH:	**6.2**
Total viable counts/g:	**400**

[redacted]

Study Director

TEST REPORT

Scantox

SP 387/TL1

3-MONTH TOXICITY STUDY IN RATS

Study No:	65860
Sponsor Ref No:	20076021
Date:	27 February 2008
Author:	[redacted]
Number of pages:	290
Sponsor:	Novozymes A/S Safety & Toxicology Krogshøjvej 36 DK-2880 Bagsværd Denmark

Good Laboratory Practice Compliance Statement

The study described in this report "SP 387/TL1 - 3-month toxicity study in rats" was conducted under my supervision and responsibility and is in compliance with the OECD Principles of Good Laboratory Practice (as revised in 1997), which are in conformity with other international GLP regulations.

The report is a complete and accurate account of the methods employed and the data obtained.

[redacted]

27 February 2008
Date

Study Director
LAB Research (Scantox)

Quality Assurance Statement

Study No: 65860

Sponsor Ref No: 20076021

Study Title: SP 387/TL1 - 3-month toxicity study in rats

A review of the study plan has been performed and reported to the Study Director:

Date of review:	**Reporting date:**
31 May 2007	31 May 2007

The part of the study performed by LAB Research (Scantox) has been inspected by the Quality Assurance Unit at LAB Research (Scantox) in compliance with the principles of Good Laboratory Practice. Inspection reports have been communicated to the Study Director and to management on the dates stated in the table below. Process and facility inspections are performed on a regular basis in accordance with LAB Research (Scantox) procedures. Study-based inspection dates and the most recent inspection dates of the processes applicable to this study are stated in the below table.

Inspection type	**Inspection item(s)**	**Inspection date(s)**	**Reporting date(s)**
Study-based	Housing of animals	19 June 2007	19 June 2007
	Dosing	19 June 2007 06 August 2007	19 June 2007 06 August 2007
	Observation of animals	19 June 2007 06 August 2007	19 June 2007 06 August 2007
	Detailed clinic observation of animals	06 August 2007	06 August 2007
	Observation of animals, documentation	18 September 2007	18 September 2007
	Detailed clinic observation of animals, documentation	19 June 2007	19 June 2007
	Raw data	19 June 2007 06 August 2007 18 September 2007	19 June 2007 06 August 2007 18 September 2007
	Preparation of dose formulation	25 June 2007 13 August 2007	25 June 2007 13 August 2007
	Dividing of Test item into portions	13 August 2007	13 August 2007

	Open field test	05 September 2007	05 September 2007
	Stimuli-induced test	11 September 2007	11 September 2007
	Blood sampling	18 September 2007	18 September 2007
	Necropsy	18 September 2007	18 September 2007
Process-based	Arrival and allocation of animals	03 May 2007	03 May 2007
	Re-allocation, weighing of animal, diet and water	08 May 2007 06 August 2007	08 May 2007 06 August 2007
	Sample dispatch	03 July 2007	03 July 2007
	Clinical chemistry analysis	05 July 2007	05 July 2007
	Haematology analysis	05 July 2007	05 July 2007
	Histology and pathology	29 August 2007	29 August 2007
	Ophthalmoscopy	19 March 2007 15 June 2007	19 March 2007 15 June 2007

The study report has been audited. As far as can be reasonably established, the methods, procedures and observations have been accurately described, and the results and data presented in the study report accurately reflect the raw data generated during the study.

The study report gives an accurate account of the methods and procedures outlined in the study plan and in LAB Research (Scantox) Standard Operating Procedures.

Audit date(s) of Draft Report and data:	Reporting date (study director and management):
29 and 30 January 2008. 06,07,08 and 13 February 2008.	14 February 2008.
Audit date of Final Report:	**No report**
27 February 2008	

The part of the study performed by Novozymes A/S been inspected and the results reviewed by their Quality Assurance Unit and a test site QA statement has been issued.

[redacted]

QA Auditor
LAB Research (Scantox)

27 February 2008

Date

Personnel involved in the study

Study Director,
until 25 September 2007: [redacted]

Study Director,
from 26 September 2007: [redacted]

Study Supervisor: [redacted]

Principal Investigator,
Analysis of dose formulation: [redacted]

Sponsor Monitor: [redacted]

Table of Contents

Table of Figures

Table of Tables

1 Summary

This study was conducted at LAB Research (Scantox), Hestehavevej 36A, Ejby, DK-4623 Lille Skensved, Denmark.

The objective of this study was to assess the toxicity of SP 387/TL1 administered daily by oral treatment to rats for 13 weeks.

Forty male and forty female SPF Sprague Dawley rats of the Ntac:SD strain from Taconic Europe A/S were used in this study. The animals were randomly allocated to 4 groups (10 males and 10 females each). Group 1 was treated with tap water. Groups 2, 3 and 4 were treated with 58, 192 and 581 mg TOS (Total Organic Solids) per kg body weight, respectively. The animals were treated orally (gavage) for 92 days. The dose volume was 5 ml/kg. Clinical signs were recorded daily and detailed clinical observations were performed outside the home cage once per week. All animals were examined with respect to reactivity to different types of stimuli, grip strength and motor activity (open field test). Before start of treatment and before termination of treatment, ophthalmoscopy was performed. Body weight and food consumption were recorded weekly and water consumption was recorded twice weekly. Blood samples for haematology and clinical chemistry were taken before termination of treatment. At termination of the study, the animals were killed and subjected to a macroscopic examination and selected organs were weighed, fixed and examined microscopically.

During the study, two animals from Group 3 were found dead (on Days 35 and 69, respectively). No clear cause of death could be established at necropsy and therefore the toxicological significance of this is unknown. Apart from this, no treatment-related clinical signs were observed at the daily or weekly clinical examinations.

No treatment-related findings were seen in the open field testing, at the stimuli-induced clinical observations, at the opthalmoscopy examination, on food and water consumption, on body weight gain, on the haematological or on the clinical chemical parameters. At necropsy, no macroscopic treatment-related findings were observed and there were no treatment-related significant effects on organ weights. No treatment-related findings were reported on microscopic evaluation of tissues available for histological examination.

Dose formulation analysis results showed that no activity above the detection limit was found for the control group. The results from the dose formulations analysis from treatment Groups

2-4 showed that the measured concentration of the dosing solutions expressed in enzyme activity units was found not to differ significantly from the expected content of test material formulations for all groups.

In conclusion, thirteen weeks of oral (gavage) treatment of rats with SP 387/TL1 (batch No PPF 26813) at dose levels of up to 581 mg total organic solids per kg body weight caused no dose-related findings. The NOAEL in this species for SP 387/TL1 is therefore 581 mg TOS/kg b.wt (equivalent to 618.3 KMTU/kg b.wt/day).

2 Introduction

SP 387/TL1 was a microbial trypsin analogue to be used in food industry.

The objective of this study was to assess the toxicity of SP 387/TL1 administered daily by oral treatment to rats for 13 weeks.

The present study was conducted according to the OECD Guideline 408, adopted on 21 September 1998.

The rat was selected as the test model because of its proven suitability in this type of study. Oral treatment was chosen in order to comply with the possible human route of administration. The doses were selected by the Sponsor.

This study was conducted at LAB Research (Scantox), Hestehavevej 36A, Ejby, DK-4623 Lille Skensved, Denmark according to Study plan dated 08 June 2007 and Amendment No 1 dated 15 June 2007, No 2 dated 22 June 2007, No 3 dated 08 August 2007, No 4 dated 17 September 2007, No 5 dated 21 September 2007, No 6 dated 26 September 2007 and No 7 dated 23 October 2007.

The animals arrived on 11 June 2007. Treatment started on 19 June 2007. The in-life phase ended on 19 September 2007.

This report describes the procedures used and the results obtained.

3 Materials and methods

3.1 Test item and vehicle

The test item, SP 387/TL1 (batch No PPF 26813), was supplied by the Sponsor. Test item characterisation (identity, purity, stability) was the responsibility of the Sponsor. The test item was stored at -18 C in the dark.

<u>Test item</u>

Batch:	PPF 26813
Name:	SP 387/TL1
Type of enzyme:	Trypsin

Description:

Physical form / Colour:	Brownish liquid at room temperature
Activity:	117 KMTU/g
Water (KF):	86.7 % w/w
Dry matter:	13.3 % w/w
Ash (600°C):	2.3 % w/w
TOTAL ORGANIC SOLIDS (TOS):	11.0 % w/w
Specific gravity (g/ml):	1.057 g/mL
pH:	6.2
Total viable counts/g:	400

Storage condition: Deep frozen (-18°C)

Vehicle Tap water
Analyses for relevant possible contaminants were performed regularly. Certificates of analysis have been retained.

Remaining test item was discarded upon finalization of the study.

3.2 Animals

The experiment was performed in 40 male and 40 female SPF Sprague Dawley rats of the Ntac:SD strain from Taconic Europe A/S, Ejby, Denmark. At the start of the acclimatisation period, the rats were approximately 5 weeks old and their body weight was within a range of +/- 20 grams for each sex. Ten (10) extra animals (5 of each sex) were available until completion of the acclimatisation period for replacement purposes.

An acclimatisation period of 8 days was allowed in order to reject animals in poor condition or at the extremes of the weight range.

3.3 Housing

The study took place in animal room No 117 provided with filtered air at a temperature of 21°C ±3°C and relative humidity of 55% ±15%. Minor deviations to these limits occurred during the study. However, these deviations were considered not to have any impact on the outcome of the study. The temperature and relative humidity in the animal room were recorded hourly during the study and the records have been retained.

The ventilation system has been designed to give 10 air changes per hour. The room was illuminated to give a cycle of 12 hours light and 12 hours darkness. Light was on from 06:00 h to 18:00 h.

The rats were kept in transparent polycarbonate cages (floor area: 1500 cm² - height 21 cm) with two in each cage, males and females separated. The cages were cleaned and the bedding changed at least once per week.

Before the animals arrived, the animal room was cleaned and disinfected. During the study, the animal room was cleaned regularly and rinsed with water.

3.4 Bedding

The bedding was softwood sawdust "Jeluxyl" from Jelu Werk GmbH, Josef Ehrler GmbH & Co KG, Ludwigsmühle, D-73494 Rosenberg, Germany. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis have been retained.

3.5 Environmental enrichment

For environmental enrichment, the animals were offered a supply of Aspen Wood Wool from Tapvei Oy, FIN-73620 Kortteinen, Finland, at each change of bedding. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis have been retained.

Furthermore, an autoclaved brick of wood from Tapvei Oy, FIN-73620 Kortteinen, Finland, was provided to each cage. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis have been retained.

Each cage also contained a red transparent Rat House (Noryl, Tecniplast) from Tecniplast Gazzada S.a.r.l., 21020 Buguggiate -Va, Italy. The house allows the animals to show a wide range of natural behaviour.

3.6 Diet

A complete pelleted rodent diet "Altromin 1314 Fortified" (for growing animals) was available *ad libitum* until Day 49 of the dosing period. On Day 50 and throughout the study, the animals were offered *ad libitum* “Altromin 1324 Fortified” (for adult animals). Altromin was supplied by Altromin Gesellschaft für Tierernährung mbH, D-32791 Lage, Germany.

Analyses for major nutritive components and relevant possible contaminants were performed regularly. Certificates of analysis have been retained.

3.7 Drinking water

The animals had free access to bottles with domestic quality drinking water acidified with hydrochloric acid to pH 2.5 in order to prevent microbial growth. Analyses for relevant possible contaminants were performed regularly on the drinking water prior to acidification. Certificates of analysis have been retained.

3.8 Animal randomisation and allocation

On the day of arrival, the animals were allocated randomly to 4 groups and a group of extra animals, using a randomisation scheme.

Prior to commencement of treatment, the animals were re-allocated in order to reduce possible inter-group mean body weight differences. Data available from pre-treatment observations, clinical signs and laboratory investigations were taken into account when re-allocating animals.

On Day 3 of the study, the extra animals were killed or allocated to LAB Research (Scantox) stock and were thereafter no longer part of this study.

3.9 Animal and cage identification

Each animal was identified by punched earmarks.

Each cage was identified by a colour coded card containing at least study number, group number, sex and animal number.

3.10 Treatment

The groups, dose levels, animal numbers and colour codes were as follows:

Group	Dose*	Dosage	Animal Nos		Colour code
	Conc. (v/v)	(mg TOS/kg b.w./day)	Male	Female	
1	0 %	0	1 - 10	11 - 20	White
2	10%	58	21 - 30	31 - 40	Blue
3	33%	192	41 - 50	51 - 60	Green
4	100%	581	61 - 70	71 - 80	Red

*Material as supplied
TOS, g/kg = mL test item/kg bw x specific gravity x TOS % w/w
Example group 2: 0.5 ml/kg bw x 1.057 g/ml x 11.0 % w/w / 100% = 0.058 g/kg

- The daily dose was given by oral gavage according to the most recent body weight data.
- Treatment was performed daily for 92 days and until the day before necropsy.
- Dose volume was 5 ml/kg body weight.
- Dose formulations for Groups 2 to 4 were kept on a magnetic stirrer approximately 20 minutes before treatment and during treatment.
- Treatment was completed within eight (8) hours after preparation of the dose formulations.
- The first day of treatment was designated Day 1.
- The tubes were wiped between each dosing.

3.11 Dose formulation preparation

The vehicle for preparation of the dose formulation was tap water. According to the Sponsor, the prepared formulations were stable for at least 24 hrs when stored at 4ºC or at room temperature in the dark.

The dose formulations were prepared daily by diluting the test item in tap water. Treatment was completed within 8 hrs after preparation of the dose formulations.

The test item was kept frozen at approximately -18°C until use. Before use, each bottle of the test item was thawed to divide the contents into portions suitable for daily preparation of dose formulations and frozen again. The test item (original bottles or portions) was thawed overnight in the refrigerator or at room temperature for maximum 4 hours. Before dividing the contents of the original bottles into portions and before preparation of the dose formulations, the test article was stirred gently for at least 10 minutes on a magnetic stirrer.

Group 1: Vehicle (tap water).
Group 2: 1 part test item diluted in 9 parts vehicle.
Group 3: 1 part test item diluted in 2.03 parts vehicle.
Group 4: Undiluted test item.

The dose formulations (Groups 2-4) were kept on a magnetic stirrer during treatment.

The dose formulation was kept in 100 ml bottles with a yellow colour code, in addition to the group-wise colour codes, as stated under paragraph Treatment. As a deviation to the study plan, the dose formulation was not coded with an orange colour. However, this deviation was considered to have any impact on the study.

3.12 Control of dose preparations and usage

Before preparation of dose formulation, the dose calculations were double checked.

Each step of the dose formulation preparation and the dosing, including weight of each dose formulation before and after dosing, was documented by weighing.

After dosing, the amount of dose formulation used for each group was compared with the predicted daily usage.

3.13 Analysis of dose formulations

During Weeks 1, 6 and 13, two (2) sets of triplicate (3) samples (6 samples in total) (each of 10 ml Cryotube, Nunc) of the four dose formulations were taken and stored frozen at approximately −18°C. One set of triplicate samples were stored at LAB Research (Scantox) until the study was finalised and reported and can hereafter be discarded, if nothing else is agreed on. One set of triplicate sample was sent to the Sponsor, Novozymes A/S, Denmark for analysis.

The results were sent to the Study Director at LAB Research (Scantox) as a QA-audited PI-report and are included as Appendix II.

3.14 Clinical signs

All visible signs of ill health and any behavioural changes were recorded daily. Any deviation from normal was recorded with respect to time of onset, duration and intensity. In addition to this, the animals were observed approximately 1 hour (± 10 minutes) after dosing.

3.14.1 Weekly observations

Beginning prior to start of treatment, detailed clinical observations were performed outside the home cage once per week at similar times. Signs to be recorded included, but were not limited to: changes in skin/fur, eyes, mucous membranes, occurrence of secretions and excretions and autonomic activity (*e.g*., lacrimation, piloerection, pupil size, and unusual respiratory pattern). Changes in gait, posture and response to handling as well as the presence of clonic or tonic movements, stereotypies (*e.g.* excessive grooming, repetitive circling) or bizarre behaviour (*e.g*. self-mutilation, walking backwards) were also recorded.

3.14.2 Open field and stimuli-induced tests

On one occasion during the last two weeks of the study, all animals were examined with respect to reactivity to different types of stimuli (*e.g.* auditory, visual, tactile), grip strength and motor activity (open field test).

3.15 Mortality

If an animal died or was killed for ethical reasons after start of treatment, the animal was necropsied and subjected to the procedures described in the paragraph Terminal observations.

3.16 Body weight

Starting on arrival, the animals were weighed once weekly, including Day 1 which was the body weight used for randomisation. During the dosing period, the animals were weighed on the last day of each study week (Days 7, 14, etc) and this weight was used for calculation of the doses for the following study weeks. Moreover, the animals were weighed at necropsy. The weight from Day 1 was used for calculation of the doses for the first week of dosing.

3.17 Food consumption

From Day 1, the food consumption was recorded weekly (Days 1, 7, 14 etc.) for each cage at 7 days' interval.

3.18 Water consumption

From Day 1, the water consumption was recorded twice weekly for each cage.

3.19 Ophthalmoscopy

Before start of treatment, ophthalmoscopy was performed on all animals. Before termination of treatment, all animals in Groups 1 and 4 were re-examined. The animals in Groups 2 and 3 were not re-examined, since no treatment-related findings were observed in the high dose group.

After application of tropicamide 1% solution (Mydriacyl, Alcon Universal Ltd., USA), both eyes were examined with an indirect ophthalmoscope and a portable slit-lamp microscope.

3.20 Clinical pathology

Before termination of treatment, blood samples were taken from all animals. The blood samples were drawn from the orbital venous plexus during CO_2/O_2 anaesthesia.

For haematology, at least 300 µl EDTA stabilised blood was taken. From this sample, a smear was prepared and stained with May-Grünwald and Giemsa for possible later manual differential leucocyte count. However, based on the ABX Pentra 120DX SPS generated result, this was considered irrelevant.

For the coagulation tests, 500 µl citrate stabilised blood was taken.

Approximately 1 ml blood was taken for clinical chemistry in plain glass tubes for serum.

At least 0.2 ml serum was transferred to cryotubes, labelled properly and stored at approximately -18°C until dispatch with dry ice to the Sponsor: Novozymes A/S, Denmark for possible future analysis. This analysis will not be part of this study.

At necropsy, a bone marrow smear was taken from the femur of all animals (see the table under the heading Organs and tissues). The smears were fixed and stained with May-Grünwald and Giemsa stain. As not suggested by the haematological findings, these smears were not analysed.

The parameters, methods and units for the laboratory investigations are stated below:

3.20.1 Haematology and coagulation parameters

Parameter	Method/Equipment	Unit
Haemoglobin (Hb)	Direct measurement/ ABX Pentra 120DX SPS	mmol/l
Red blood cell count (RBC)	Direct measurement/ABX Pentra 120DX SPS	1012/l
Haematocrit (HT)	Direct measurement/ABX Pentra 120DX SPS	Ml/100 ml
Mean cell volume (MCV)	Calculated/ABX Pentra 120DX SPS	Fl
Mean cell haemoglobin (MCH)	Calculated/ABX Pentra 120DX SPS	fmol
Mean cell haemoglobin concentration (MCHC)	Calculated/ABX Pentra 120DX SPS	mmol/l
White blood cell count (WBC)	Direct measurement/ABX Pentra 120DX SPS	109/l
Differential leucocyte count (NEUTRO, LYMPHO, EOS, BASO, MONO)	Direct measurement/ABX Pentra 120DX SPS	% and 109/l
Platelet count (Plt)	Direct measurement/ABX Pentra 120DX SPS	109/l
Activated partial thromboplastin time (APTT)	IL Test™/ACL™ (*)	Sec.
Prothrombin time (Pt)	IL Test™/ACL™(*)	Sec.
Fibrinogen (Fib)	IL Test™/ACL™(*)	g/l

(* Instrumentation Laboratories, Automated Coagulation Laboratory)

3.20.2 Clinical chemistry

Parameter	Method	Unit
Alanine aminotransferase (ALAT)	Hitachi 917	µkat/l
Aspartate aminotransferase (ASAT)	Hitachi 917	µkat/l
Alkaline phosphatase (ALKPH)	Hitachi 917	µkat/l
Bilirubin (total) (BILI)	Hitachi 917	µmol/l
Gamma-glutamyl transferase (GGT)	Hitachi 917	µkat/l
Cholesterol (CHOL)	Hitachi 917	mmol/l
Triglycerides (TRIG)	Hitachi 917	mmol/l
Carbamide (UREA)	Hitachi 917	mmol/l
Creatinine (CREAT)	Hitachi 917	µmol/l
Glucose (GLUC)	Hitachi 917	mmol/l
Sodium (Na)	Ion selective electrode/Hitachi 917	mmol/l
Potassium (K)	Ion selective electrode/Hitachi 917	mmol/l
Calcium (Ca)	Hitachi 917	mmol/l
Magnesium (Mg)	Hitachi 917	mmol/l
Inorganic phosphorus (P)	Hitachi 917	mmol/l
Chloride (Cl)	Ion selective electrode/Hitachi 917	mmol/l
Protein (total) (PROTEIN)	Hitachi 917	g/l
Albumin (ALB)	Hitachi 917	g/l
Globulin	Calculated	g/l
Albumin/Globulin (ALB/G) ratio	Calculated	No unit

3.21 Terminal observations

On the day of necropsy, the animals were weighed, examined externally and placed in a chamber with atmospheric air upon which CO_2 was applied at a steadily increasing concentration for euthanasia. The animals were monitored closely while in the chamber. Death was confirmed and the animals were bled before proceeding. The animals were necropsied in the sequence of one or two animals/group.

3.21.1 Necropsy

A macroscopic examination was performed after opening the cranial, thoracic and abdominal cavities and by observing the appearance of the organs and tissues *in situ*. Any macroscopic

change was recorded with details of the location, colour, shape and size in the PathData computer system.

3.21.2 Organs and tissues

Either whole organs or selected samples of the indicated organs and tissues were subjected to the procedures itemised in the list given below. Weights were recorded in the PathData computer system.

Paired organs were weighed together. The relative organ weights, i.e. the organ weight as a percentage of the body weight and organ weight as a percentage of the brain weight, were calculated for each animal.

All tissues were initially fixed in phosphate buffered neutral 4% formaldehyde with the exception of the eyes and testes (Modified Davidsons's fixative). The fixative for long term preservation was phosphate buffered neutral 4% formaldehyde for all tissues. The lungs were infused with fixative at necropsy.

Organs and tissues	Weigh	Fix	Micro	Organs and tissues	Weigh	Fix	Micro
Abnormalities (gross lesions)		x	x	Pituitary		x	x
Adrenals	x	x	x	Prostate		x	x
Aorta (thoracic)		x	x	Salivary glands (right parotid, sublingual and submandibular)		x	x
Brain	x	x	x	Sciatic nerve		x	x
Bone marrow smear		x		Seminal vesicles		x	x
Bones (right femur)		x	x	Skeletal muscle		x	x
Epididymides	x	x	x	Skin		x	x
Eyes with lens/optic nerve		x	x	Spinal cord (cervical, thoracic, lumbar)		x	x
Heart	x	x	x	Spleen	x	x	x
Intestine small (duodenum, jejunum, ileum)		x	x	Sternum (for bone marrow)		x	x
Intestine large (caecum, colon, rectum)		x	x	Stomach (glandular, non glandular)		x	x
Joint (knee)		x	x	Testes	x	x	x
Kidneys	x	x	x	Thymus	x	x	x
Larynx		x	x	Thyroids (incl. parathyroid)		x	x
Liver	x	x	x	Tongue		x	x
Lungs		x	x	Trachea		x	x
Lymph nodes (mesenteric and right mandibular)		x	x	Ureters		x	x
Mammary gland		x	x	Urinary bladder		x	x
Oesophagus		x	x	Uterus (horn, cervix and oviducts)	x	x	x
Ovaries	x	x	x	Vagina		x	x
Pancreas		x	x				

3.21.3 Processing and microscopic examination

After fixation, the organs and tissues sampled for microscopic examination were trimmed and representative specimens were taken for histological processing. The specimens were embedded in paraffin and cut at a nominal thickness of approximately 5 µm, stained with haematoxylin and eosin and examined under a light microscope. Paired organs were processed together.

All pathological findings were entered directly onto the PathData computer system.

Histological alterations are graded on a 5-grade system:

Grade 1 - Minimal/Very few/Very small
Grade 2 - Slight/Few/Small
Grade 3 - Moderate/Moderate number/Moderate size
Grade 4 - Marked/Many/Large
Grade 5 - Massive/Extensive number/Extensive size
Present - Finding present/Severity not scored

The following organs and tissues were examined microscopically:

- All organs and tissues from all control (Group 1) and high dose animals (Group 4).
- From all animals, the organs and tissues where treatment-related changes were observed in the high dose group.
- All organs and tissues from all animals dead after initiation of treatment.
- All gross lesions from all animals.

Submandibular lymph nodes with macroscopically visible signs of accumulation of blood due to blood sampling from the ipsilateral orbital venous plexus were fixed but not processed histologically.

Both eyes were fixed but only the eye opposite the side used for blood sampling was examined microscopically.

Tissues not examined microscopically was stored at LAB Research (Scantox*)* held in fixative.

3.21.4 Peer review

A peer review by a LAB Research (Scantox) peer reviewing pathologist was performed on selected slides. Diagnostic discrepancies were resolved by discussion.

3.22 Statistics

Data was processed to give group mean values and standard deviations where appropriate.

Thereafter, each continuous variable was tested for homogeneity of variance with Levene's test. If the variance was homogeneous, analysis of variance was carried out for the variable. If any significant differences were detected, possible inter-group differences were assessed with Dunnett's test (comparing treated groups with a control group). If the variance was heterogeneous, each variable was tested for normality by the Shapiro-Wilk method. In case of

normal distribution, possible inter-group differences were identified with Student's t-test. Otherwise the possible inter-group differences were assessed by Kruskal-Wallis's test. If any significant inter-group differences were detected, the subsequent identification of the groups was carried out with Wilcoxon Rank-Sum test.

For all tests, the level of significance was defined as $p<0.05$.

The statistical analyses were made with SAS® procedures (version 8.2) described in "SAS/STAT® User's Guide, SAS OnlineDoc®, 1999, SAS Institute Inc., Cary, North Carolina 27513, USA.

3.23 Archives

3.23.1 LAB Research (Scantox)

For a period of 10 years, LAB Research (Scantox) will be responsible for the archiving of the following materials relating to the study:

Study plan, study plan amendments and correspondence, test material receipts, sample of test item, animal records, all original data, wet tissues, blocks and slides and final report.

At the end of the storage period, LAB Research (Scantox) will contact the Sponsor for instructions whether the material should be transferred, retained or destroyed.

3.23.2 Novozymes A/S (Analysis of dose formulation)

For a period of 10 years, the raw data pertaining to formulation analysis, shipping documents, correspondence and the analytical report will be archived at Novozymes A/S.

4 Results

4.1 Clinical signs

Table 9

Animal No 49 from group 3 was found dead on Day 35 of the study.

Animal No 51 from group 3 was found dead on Day 69 of the study.

No clear cause of death could be established at necropsy. However, as no dose relation was seen, this was not considered related to treatment with the test item.

Apart from this, no treatment-related clinical signs were seen at the daily or weekly expanded observations.

4.2 Stimuli-induced clinical observations

Table 1, Table 10

No treatment-related stimuli-induced clinical observations were seen.

4.3 Open field testing

Table 2, Table 11

No treatment-related effects were seen in the open field testing.

4.4 Body weight

Figure 1, Table 3, Table 12

No treatment-related effect on the body weight was seen.

A significant difference in body weight in Group 4 males was seen on Day 14 when compared to the control group. However, this was an isolated finding and was therefore considered incidental.

4.5 Food consumption

Table 4, Table 13

No treatment-related effect was seen on the food consumption.

A statistically significantly lower food consumption was seen in Group 2 males in Week 4 and Weeks 6-13 (except Week 7) when compared to the control group. However, this could be assigned to the fact that Group 2 had the lowest mean body weight, and since no tendency was seen towards a lower food consumption in Groups 3-4 or lower body weight when compared to the control group, this finding was considered of no toxicological importance. A statistical significantly lower food consumption was seen in males Group 4 in Week 9 and in females Group 4 in Week 8. However, no dose dependent relationship or constantly lower food consumption was seen in these groups. Therefore, these findings were considered of no toxicological importance.

4.6 Water consumption

Table 5, Table 14

No treatment-related effect on the water consumption was seen.

A statistically significantly lower water consumption was seen in males Group 2 on Day 84 and Day 87 of the study, in the males Group 3 on Days 42 and 84 of the study and in the males Group 4 on Day 87. However, since these were isolated findings seen on a few occasions and as no dose dependency was seen, they were considered of no toxicological significance.

4.7 Ophthalmoscopy

Table 15

No treatment-related effects were seen at opthalmoscopy.

4.8 Haematology

Table 6, Table 16

No treatment-related effects were seen in any of the haematological parameters.

4.9 Clinical chemistry

Table 7, Table 17

No treatment-related effects were seen in any of the clinical chemichal parameters.

A statistically significantly lower ALAT was seen in Group 4 males. This was outside the range of LAB Research (Scantox) historical data (range 1.14-3.29 µkat/l). However, as this was not seen in the females and as there were no other treatment-related findings, this was considered incidental.

4.10 Organ weight

Table 8, Table 18

No treatment-related effects were seen on the organ weights.

A statistically significantly lower absolute brain weight in males in Group 2 and Group 4 was seen. Since no effect on the relative brain weight was seen, since it was within the range of LAB Research (Scantox) historical data (range 1967-2337 mg) and since this finding was not dose-related, it was considered to be incidental.

4.11 Macroscopic and Microscopic findings

Appendix I

No treatment-related changes were found at necropsy and in the histological evaluation in the examined organs.

4.12 Dose formulation analysis

Appendix II

The results from the dose formulation analysis showed that the measured concentration of the dosing solutions expressed in enzyme activity units was found not to differ significantly from the expected content of test material formulations for all groups.

The analysis from Week 6 of the study showed a significantly higher enzyme activity for Group 4 relative to the enzyme activity in Week 1. However, this was considered not to have any impact on the outcome and conclusions of the study.

5 Conclusion

Thirteen weeks of oral (gavage) treatment of rats with SP 387/TL1 (batch No PPF 26813) at dose levels of up to 581 mg total organic solids per kg body weight caused no dose-related findings. The NOAEL in this species for SP 387/TL1 is therefore 581 mg TOS/kg b.wt (equivalent to 618.3 KMTU/kg b.wt/day).

Figure 1 Body weight

SP 387/TL1

A 3-Month Toxicity Study in Rats

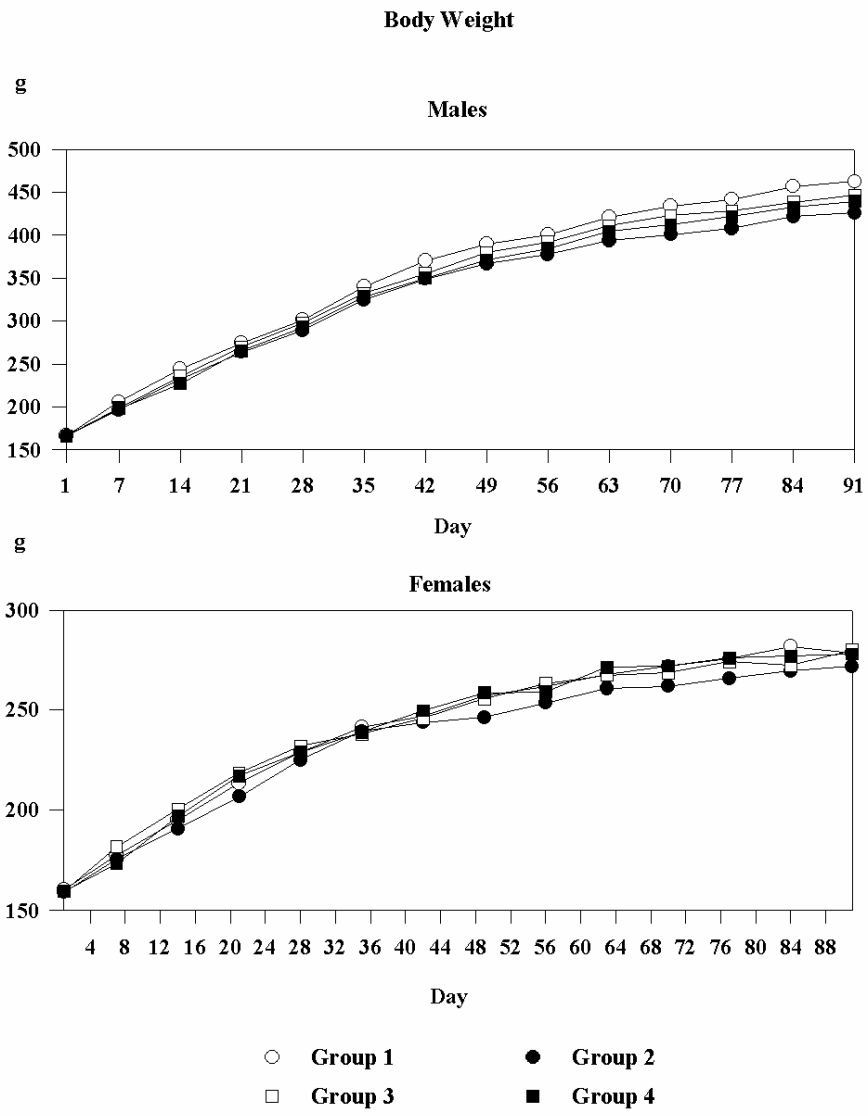


Table 1 Stimuli-induced clinical observations – Incidence of findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	PUPIL REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	TOE PINCH REACTION		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	GRASP RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	GRIP STRENGTH		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	EYELID REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	STARTLE RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	HEAD SHAKE RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	RIGHTING REFLEX, TABLE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	RIGHTING REFLEX, HAND		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	PLACING REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Males

GROUP	NEGATIVE GEOTAXIS			
	Proper reaction	Failed reaction	Total	p
1	10	0	10	
2	10	0	10	
3	8	1	9	
4	8	2	10	
Total	36	3	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	PUPIL REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	TOE PINCH REACTION		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	GRASP RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	GRIP STRENGTH		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	EYELID REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	STARTLE RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	HEAD SHAKE RESPONSE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	RIGHTING REFLEX, TABLE		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	RIGHTING REFLEX, HAND		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	PLACING REFLEX		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Incidence of findings

Females

GROUP	NEGATIVE GEOTAXIS		
	Proper reaction	Total	p
1	10	10	
2	10	10	
3	9	9	
4	10	10	
Total	39	39	

p>0.05 versus control group

Table 2 Open field testing – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Group mean values

Males

GROUP	TIME MOVING				TOTAL DISTANCE (m)				NO. OF REARINGS				TIME CENTRE			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	182.3	13.0	10		28.4	4.2	10		29.8	20.1	10		90.0	13.4	10	
2	175.9	12.3	10		25.4	3.5	10		26.9	11.3	10		82.2	21.7	10	
3	176.2	14.5	9		25.0	4.4	9		20.4	6.5	9		88.0	20.8	9	
4	171.4	22.4	10		24.3	7.7	10		19.5	10.1	10		82.4	24.6	10	

p>0.05, versus control group

S.D. = standard deviation N = numbers of cages

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Group mean values

Males

GROUP	TIME PERIPHERY				TOTAL CORNER VISITS				MOVES/COUNTS				FAECES			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	210.0	13.4	10		7.0	3.1	10		912.4	64.0	10		1.4	2.5	10	
2	217.8	21.7	10		6.3	2.3	10		879.7	62.0	10		0.7	1.1	10	
3	212.0	20.8	9		7.0	1.2	9		880.7	72.6	9		2.6	3.2	9	
4	217.6	24.6	10		5.2	3.4	10		856.9	112.1	10		0.7	1.5	10	

p>0.05, versus control group

S.D. = standard deviation N = numbers of cages

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Group mean values

Females

GROUP	TIME MOVING				TOTAL DISTANCE (m)				NO. OF REARINGS				TIME CENTRE			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	176.5	11.6	10		28.5	2.5	10		21.0	12.6	10		82.1	19.1	10	
2	174.9	11.6	10		30.9	5.8	10		27.2	17.7	10		75.7	19.6	10	
3	167.7	17.0	9		29.9	4.7	9		26.2	14.5	9		83.9	18.0	9	
4	160.9	34.0	10		24.2	7.0	10		22.7	7.1	10		80.1	25.8	10	

p>0.05, versus control group

S.D. = standard deviation N = numbers of cages

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Group mean values

Females

GROUP	TIME PERIPHERY				TOTAL CORNER VISITS				MOVES/COUNTS				FAECES			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	217.9	19.1	10		4.9	3.5	10		882.3	58.3	10		0.1	0.3	10	
2	224.3	19.6	10		5.1	4.6	10		875.1	56.6	10		0.0	0.0	10	
3	216.1	18.0	9		7.8	4.1	9		838.8	84.8	9		0.0	0.0	9	
4	219.9	25.8	10		6.4	3.1	10		804.5	170.1	10		1.0	3.0	9	

p>0.05, versus control group

S.D. = standard deviation N = numbers of cages

Table 3 Body weight – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values - From arrival to day 91

Males

GROUP	ON ARRIVAL				DAY 1				DAY 7				DAY 14			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	131.6	7.6	10		166.6	7.1	10		206.0	12.1	10		244.0	11.3	10	
2	126.0	3.7	10		166.3	7.8	10		196.3	7.7	10		232.6	12.4	10	
3	127.7	6.2	10		166.1	9.3	10		199.0	11.2	10		235.7	11.4	10	
4	126.8	6.6	10		166.6	7.7	10		198.2	9.7	10		227.0	14.3	10	*

GROUP	DAY 21				DAY 28				DAY 35				DAY 42			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	274.8	13.8	10		301.5	15.9	10		340.5	22.7	10		370.2	24.3	10	
2	264.0	15.4	10		289.1	17.4	10		324.9	20.2	10		349.1	21.1	10	
3	269.8	16.6	10		298.0	17.5	10		332.2	17.3	10		355.6	17.6	9	
4	265.3	16.9	10		292.9	18.7	10		328.7	25.3	10		350.2	27.9	10	

* means 0.01<p<0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values - From arrival to day 91

Males

GROUP	DAY 49				DAY 56				DAY 63				DAY 70			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	390.2	28.2	10		401.0	29.9	10		421.1	33.5	10		433.9	36.5	10	
2	366.8	23.4	10		377.3	25.2	10		393.8	26.5	10		400.7	27.6	10	
3	380.1	15.9	9		392.3	15.9	9		410.8	16.5	9		423.0	18.5	9	
4	371.0	32.9	10		384.7	34.5	10		404.7	37.0	10		412.1	39.6	10	

GROUP	DAY 77				DAY 84				DAY 91				BODY WT GAIN DAY 1 TO 91			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	442.1	39.4	10		457.0	39.4	10		462.8	39.4	10		296.2	38.4	10	
2	408.1	29.6	10		421.6	32.0	10		426.0	30.9	10		259.7	30.2	10	
3	428.1	19.7	9		438.4	20.8	9		446.7	20.5	9		280.3	15.9	9	
4	421.6	42.8	10		432.7	43.6	10		439.8	41.6	10		273.2	38.3	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values - From arrival to day 91

Females

GROUP	ON ARRIVAL				DAY 1				DAY 7				DAY 14			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	128.5	4.9	10		160.4	6.8	10		177.7	6.5	10		194.9	8.3	10	
2	127.8	6.1	10		159.1	9.3	10		175.5	10.0	10		190.8	11.2	10	
3	133.9	8.4	10		159.6	9.1	10		181.8	8.5	10		200.4	14.6	10	
4	128.5	8.8	10		159.6	11.5	10		173.4	8.4	10		197.1	10.7	10	

GROUP	DAY 21				DAY 28				DAY 35				DAY 42			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	213.6	18.2	10		228.8	19.2	10		241.4	18.4	10		246.9	21.2	10	
2	206.8	9.0	10		224.9	13.1	10		239.3	10.2	10		243.7	8.4	10	
3	218.4	14.6	10		231.8	15.1	10		237.8	14.8	10		245.8	18.0	10	
4	217.1	13.0	10		228.8	16.5	10		238.8	13.3	10		249.6	15.4	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values - From arrival to day 91

Females

GROUP	DAY 49				DAY 56				DAY 63				DAY 70			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	256.8	19.8	10		261.6	17.9	10		267.4	22.4	10		271.6	25.7	10	
2	246.2	7.7	10		253.5	8.4	10		260.6	10.4	10		261.8	10.7	10	
3	255.4	18.8	10		263.2	19.2	10		267.1	19.3	10		268.3	21.2	9	
4	258.5	12.2	10		259.0	15.0	10		271.3	16.7	10		271.8	16.8	10	

GROUP	DAY 77				DAY 84				DAY 91				BODY WT GAIN DAY 1 TO 91			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	275.2	21.1	10		281.7	21.4	10		278.3	21.7	10		117.9	20.6	10	
2	265.7	15.8	10		269.3	8.5	10		271.6	10.0	10		112.5	5.8	10	
3	274.0	18.9	9		272.1	26.9	9		279.8	19.2	9		120.2	17.5	9	
4	275.7	12.4	10		276.8	13.7	10		277.8	11.2	10		118.2	10.7	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 4 Food consumption – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Group mean values per animal - Week 1 - Week 13

Males

GROUP	WEEK 1				WEEK 2				WEEK 3				WEEK 4			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	173.0	3.6	5		206.8	6.5	5		213.1	22.5	5		237.5	12.9	5	
2	159.0	11.4	5		191.1	14.7	5		201.4	20.5	5		206.3	26.1	5	*
3	147.8	23.2	5		196.6	12.4	5		216.0	19.0	5		228.0	18.5	5	
4	158.7	11.6	5		177.3	31.2	5		228.2	9.2	5		221.9	9.9	5	

GROUP	WEEK 5				WEEK 6				WEEK 7				WEEK 8			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	160.2	10.5	5		182.6	8.2	5		183.5	7.5	5		196.0	13.8	5	
2	150.3	4.9	5		165.6	10.3	5	*	168.9	7.9	5		176.7	7.4	5	**
3	152.9	4.3	5		174.8	2.7	4		176.9	10.7	4		185.3	5.8	4	
4	158.4	6.2	5		183.6	10.3	5		174.3	14.5	5		187.5	4.7	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Group mean values per animal - Week 1 - Week 13

Males

GROUP	WEEK 9				WEEK 10				WEEK 11				WEEK 12			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	186.8	5.4	5		196.4	10.5	5		194.7	11.0	5		200.3	12.3	5	
2	165.3	10.7	5	**	169.5	13.3	5	**	173.9	11.3	5	*	176.2	10.9	5	*
3	178.9	13.2	4		188.8	15.8	4		187.6	11.9	4		189.6	16.9	4	
4	171.8	4.5	5	*	185.6	7.7	5		187.4	5.7	5		190.2	2.5	5	

GROUP	WEEK 13				TOTAL WEEK 1 TO WEEK 13			
	Mean	S.D.	N	p	Mean	S.D.	N	p
1	197.5	12.8	5		2528.4	76.6	5	
2	175.7	6.3	5	**	2279.9	126.8	5	**
3	194.3	13.2	4		2420.7	111.2	4	
4	188.6	4.5	5		2413.5	49.8	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Group mean values per animal - Week 1 - Week 13

Females

GROUP	WEEK 1				WEEK 2				WEEK 3				WEEK 4			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	108.7	8.1	5		123.9	8.8	5		135.0	7.7	5		137.9	11.9	5	
2	106.7	5.5	5		122.5	11.1	5		123.2	7.4	5		144.4	19.0	5	
3	111.4	12.1	5		126.2	10.3	5		129.3	9.8	5		133.9	17.6	5	
4	105.3	2.5	5		125.8	6.4	5		133.5	9.2	5		128.6	11.9	5	

GROUP	WEEK 5				WEEK 6				WEEK 7				WEEK 8			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	115.7	11.5	5		118.6	10.1	5		122.2	7.3	5		132.3	6.8	5	
2	116.9	5.4	5		123.0	7.5	5		116.4	6.5	5		130.0	8.5	5	
3	122.5	19.7	5		124.1	10.8	5		121.8	17.2	5		139.4	8.2	5	
4	126.9	12.7	5		130.1	9.7	5		127.3	7.1	5		120.2	4.8	5	*

* means 0.01<p<0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Group mean values per animal - Week 1 - Week 13

Females

GROUP	WEEK 9				WEEK 10				WEEK 11				WEEK 12			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	125.8	11.2	5		127.5	11.9	5		132.4	7.5	5		128.1	12.8	5	
2	124.2	4.7	5		127.2	7.7	5		132.8	8.1	5		128.8	7.0	5	
3	123.3	8.8	5		127.0	8.2	4		131.3	7.4	4		123.2	18.2	4	
4	123.3	6.7	5		123.5	8.4	5		132.8	16.0	5		124.2	8.1	5	

GROUP	WEEK 13				TOTAL WEEK 1 TO WEEK 13			
	Mean	S.D.	N	p	Mean	S.D.	N	p
1	124.8	8.0	5		1632.9	81.0	5	
2	128.7	5.2	5		1624.8	58.6	5	
3	139.7	13.9	4		1668.0	112.0	4	
4	119.6	10.8	5		1621.1	66.2	5	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 5 Water consumption – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Males

GROUP	DAY 4				DAY 7				DAY 10				DAY 14			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	71.9	8.2	5		70.5	8.1	4		70.4	6.1	5		92.2	6.6	5	
2	68.5	6.8	5		64.6	2.6	5		67.0	3.4	5		84.5	4.0	5	
3	67.7	8.1	5		69.0	7.6	5		68.3	9.0	3		85.9	4.7	5	
4	70.7	8.1	5		74.1	3.8	5		66.0	6.5	5		77.4	18.2	5	

GROUP	DAY 17				DAY 21				DAY 24				DAY 28			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	62.3	3.3	3		109.2	16.9	5		72.9	4.5	5		92.8	10.9	4	
2	60.5	5.1	5		87.9	6.5	5		68.0	7.9	5		84.4	15.1	4	
3	66.4	6.0	5		96.8	11.8	5		69.3	6.4	5		87.7	13.1	5	
4	68.9	6.2	5		100.3	5.8	5		70.8	6.7	5		87.5	3.7	5	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Males

GROUP	DAY 31				DAY 35				DAY 38				DAY 42			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	79.9	6.5	4		129.3	11.1	5		87.6	12.1	5		134.6	7.5	5	
2	73.6	10.8	5		123.3	8.0	5		87.5	1.5	5		121.2	11.5	5	
3	73.6	9.7	5		121.0	7.8	5		85.7	12.2	4		115.2	13.0	4	*
4	75.2	14.8	5		128.7	3.6	5		93.8	5.0	5		128.3	7.1	5	

GROUP	DAY 45				DAY 49				DAY 52				DAY 56			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	89.9	7.9	5		119.1	14.9	5		83.6	7.2	5		118.8	11.1	5	
2	89.6	6.4	5		127.5	25.4	5		82.8	3.9	5		113.7	5.5	5	
3	91.5	7.8	4		116.3	14.3	4		86.7	8.5	4		117.6	7.8	4	
4	93.4	5.6	5		113.7	12.6	5		91.0	8.4	4		123.1	8.6	5	

* means 0.01<p<0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Males

GROUP	DAY 59				DAY 63				DAY 66				DAY 70			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	87.4	5.1	5		130.9	15.4	5		96.2	11.7	5		123.0	12.0	5	
2	81.2	3.1	5		116.9	11.2	5		88.7	8.2	5		111.0	13.4	5	
3	81.7	7.4	4		121.8	12.6	4		90.0	11.0	4		123.4	17.2	4	
4	80.9	10.1	5		127.8	11.2	4		91.8	6.2	5		123.0	9.0	5	

GROUP	DAY 73				DAY 77				DAY 80				DAY 84			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	98.9	16.2	5		112.0	14.8	5		118.8	7.1	5		149.2	16.3	5	
2	95.5	6.5	5		106.1	4.1	5		102.9	8.0	5		124.9	8.5	5	*
3	97.7	12.6	4		109.7	13.7	4		108.2	15.6	4		118.1	19.9	4	*
4	103.2	5.4	5		114.2	6.6	5		114.1	4.8	5		139.3	8.5	5	

* means 0.01<p<0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Males

GROUP	DAY 87				DAY 91				TOTAL DAY 4 TO DAY 91			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	115.0	10.6	5		147.5	21.5	5		2585.8	93.7	2	
2	96.3	3.7	5	**	126.6	6.1	5		2461.3	89.8	4	
3	108.1	26.5	3		134.4	22.7	4		2536.0	408.7	2	
4	101.7	3.9	5	*	142.6	9.7	5		2601.0	69.1	3	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Females

GROUP	DAY 4				DAY 7				DAY 10				DAY 14			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	66.8	13.6	5		60.9	5.5	5		59.5	9.7	5		79.6	9.5	5	
2	64.1	6.7	5		59.5	3.8	5		58.8	7.1	5		77.3	8.5	5	
3	68.5	11.8	5		65.2	11.3	5		65.3	18.7	5		78.4	10.2	5	
4	63.3	7.0	5		65.6	7.6	5		65.0	6.8	5		80.2	11.5	5	

GROUP	DAY 17				DAY 21				DAY 24				DAY 28			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	60.7	10.4	5		89.9	12.7	5		63.9	7.6	5		86.8	17.3	5	
2	75.6	48.2	5		83.0	7.7	5		64.8	10.0	5		83.2	10.0	5	
3	60.3	10.7	5		90.1	13.4	5		64.4	8.6	5		86.4	17.0	5	
4	61.5	5.5	5		95.2	12.8	5		68.3	8.7	5		88.9	14.8	5	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Females

GROUP	DAY 31				DAY 35				DAY 38				DAY 42			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	70.1	10.8	5		107.6	9.6	5		72.1	10.6	5		96.1	18.8	5	
2	70.8	10.6	5		109.8	13.3	5		77.7	9.5	5		101.8	12.4	5	
3	61.7	7.2	5		115.7	52.6	5		77.3	17.2	5		90.7	17.3	5	
4	71.2	5.5	5		100.7	15.4	5		84.2	8.6	5		113.9	11.3	5	

GROUP	DAY 45				DAY 49				DAY 52				DAY 56			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	68.0	9.4	5		86.9	15.1	5		67.7	6.0	5		98.9	10.1	5	
2	77.0	10.3	5		94.0	14.1	5		75.4	10.1	5		102.3	12.8	5	
3	79.5	15.1	5		90.2	26.2	5		103.8	60.9	5		109.0	15.5	5	
4	88.6	12.7	5		84.6	26.3	5		71.3	7.9	5		99.4	8.8	5	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Females

GROUP	DAY 59				DAY 63				DAY 66				DAY 70			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	71.7	7.6	5		110.5	12.7	5		80.0	9.3	5		98.8	18.4	4	
2	68.4	11.9	5		116.1	12.7	5		80.6	8.4	5		107.6	10.2	5	
3	75.7	3.4	5		107.8	8.3	5		79.5	8.7	5		99.7	14.9	5	
4	70.8	16.5	5		114.8	12.9	5		85.5	7.3	4		114.7	16.4	5	

GROUP	DAY 73				DAY 77				DAY 80				DAY 84			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	84.9	14.4	5		90.5	8.6	5		100.0	16.6	5		103.7	16.5	5	
2	83.2	9.3	5		95.1	8.8	5		97.2	7.9	5		100.4	10.6	5	
3	87.8	11.6	4		93.0	11.2	4		99.2	9.3	4		83.6	40.8	4	
4	97.0	14.8	5		99.6	18.5	5		105.0	20.6	5		111.0	17.8	5	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Group mean values per animal - Day 4 - Day 91

Females

GROUP	DAY 87				DAY 91				TOTAL DAY 4 TO DAY 91			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	85.8	17.8	5		114.3	17.3	5		2202.3	283.1	4	
2	83.3	9.5	5		115.6	14.9	5		2222.6	202.6	5	
3	94.5	21.9	3		117.4	16.7	4		2409.2	214.3	3	
4	87.2	7.8	5		121.9	20.4	5		2355.1	265.2	4	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 6 Haematology – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	Hb				RBC				HT				MCV			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	9.77	0.35	10		8.94	0.42	10		45.7	1.6	10		51.0	1.2	10	
2	10.21	0.34	10		9.34	0.48	10		47.5	2.1	10		50.7	1.4	10	
3	9.92	0.35	9		8.96	0.27	9		46.6	1.2	9		51.9	1.2	9	
4	9.93	0.43	10		9.02	0.42	10		46.4	2.1	10		51.6	1.7	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	MCH				MCHC				WBC				% NEUTRO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	1.10	0.00	10		21.4	0.5	10		15.86	3.33	8		11.0	6.8	10	
2	1.09	0.03	10		21.6	0.4	10		15.99	2.26	10		10.0	6.3	10	
3	1.10	0.00	9		21.3	0.4	9		16.81	3.26	9		9.7	3.8	9	
4	1.11	0.03	10		21.3	0.4	10		15.68	1.59	10		6.9	3.2	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	NEUTRO				% LYMPHO				LYMPHO				% EOS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	1.44	0.62	8		88.4	6.7	10		14.33	3.67	8		0.3	0.5	10	
2	1.58	1.03	10		89.2	6.7	10		14.31	2.47	10		0.4	0.5	10	
3	1.64	0.72	9		89.8	4.2	9		15.06	2.82	9		0.4	0.9	9	
4	1.09	0.56	10		92.0	3.2	10		14.43	1.46	10		0.8	1.0	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	EOS				% BASO				BASO				% MONO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	0.04	0.07	8		0.0	0.0	10		0.00	0.00	8		0.3	0.5	10	
2	0.07	0.09	10		0.0	0.0	10		0.00	0.00	10		0.4	0.5	10	
3	0.10	0.20	9		0.0	0.0	9		0.00	0.00	9		0.1	0.3	9	
4	0.13	0.17	10		0.0	0.0	10		0.00	0.00	10		0.3	0.5	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	MONO				Plt				APTT				Pt			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	0.06	0.09	8		536	85	10		30.6	17.3	10		15.5	0.5	10	
2	0.07	0.09	10		591	83	10		32.6	20.2	10		15.5	0.7	10	
3	0.02	0.07	9		614	97	9		32.4	15.0	9		15.4	0.5	9	
4	0.06	0.10	10		578	75	10		32.4	20.9	10		15.1	0.6	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Males

GROUP	Fib			
	Mean	S.D.	N	p
1	3.13	0.71	10	
2	3.58	0.32	10	
3	3.27	0.30	9	
4	3.31	0.31	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	Hb				RBC				HT				MCV			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	9.65	0.26	10		8.51	0.20	10		44.6	1.5	10		52.4	1.1	10	
2	9.71	0.27	10		8.38	0.32	10		44.3	1.6	10		52.9	1.1	10	
3	9.72	0.42	9		8.68	0.40	9		44.4	1.5	9		51.2	1.8	9	
4	9.65	0.39	10		8.41	0.41	10		44.1	2.1	10		52.5	1.8	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	MCH				MCHC				WBC				% NEUTRO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	1.12	0.04	10		21.7	0.3	10		13.49	2.59	8		7.7	5.3	10	
2	1.16	0.05	10		22.0	0.3	10		14.68	1.90	10		7.9	3.1	10	
3	1.13	0.05	9		21.9	0.4	9		12.43	2.13	9		5.4	1.5	9	
4	1.15	0.05	10		21.9	0.4	10		13.45	2.55	8		8.5	6.7	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	NEUTRO				% LYMPHO				LYMPHO				% EOS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	1.23	0.76	8		91.4	5.1	10		12.21	2.51	8		0.8	1.0	10	
2	1.12	0.37	10		91.4	3.6	10		13.46	2.00	10		0.5	0.7	10	
3	0.69	0.25	9		92.6	1.1	9		11.51	2.03	9		1.9	1.5	9	
4	1.31	1.01	8		90.3	7.1	10		11.98	2.68	8		1.2	1.1	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	EOS				% BASO				BASO				% MONO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	0.05	0.08	8		0.0	0.0	10		0.00	0.00	8		0.1	0.3	10	
2	0.09	0.12	10		0.0	0.0	10		0.00	0.00	10		0.2	0.4	10	
3	0.21	0.18	9		0.0	0.0	9		0.00	0.00	9		0.1	0.3	9	
4	0.18	0.15	8		0.0	0.0	10		0.00	0.00	8		0.0	0.0	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	MONO				Plt				APTT				Pt			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	0.00	0.00	8		649	131	10		25.1	13.7	10		16.1	0.8	10	
2	0.03	0.07	10		563	102	10		27.7	15.8	10		16.3	0.5	10	
3	0.01	0.03	9		578	117	9		24.3	15.1	9		16.6	0.6	9	
4	0.00	0.00	8		606	113	10		24.3	11.7	9		16.3	0.6	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Group mean values - Before termination of treatment

Females

GROUP	Fib			
	Mean	S.D.	N	p
1	2.62	0.24	10	
2	2.71	0.27	10	
3	2.74	0.50	9	
4	2.71	0.44	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 7 Clinical chemistry – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Males

GROUP	ALAT				ASAT				ALKPH				BILI			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	1.25	0.19	10		1.75	0.22	10		3.01	0.43	10		<1.47	>0.31	10	
2	1.15	0.20	10		1.79	0.34	10		3.25	0.48	10		<1.69	>0.28	10	
3	1.08	0.16	9		1.67	0.23	9		2.97	0.46	9		<1.54	>0.21	9	
4	1.05	0.09	10	*	1.72	0.21	10		3.17	0.51	10		<1.72	>0.29	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI is 1.3 - this value is used in the calculation

* means <0.01p<0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Males

GROUP	GGT				CHOL				TRIG				UREA			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	<0.04	>0.00	10		2.92	0.45	10		2.20	1.17	10		8.68	1.03	10	
2	<0.04	>0.00	10		2.69	0.23	10		1.56	0.33	10		8.55	1.01	10	
3	<0.04	>0.00	9		2.67	0.32	9		1.71	0.64	9		8.16	1.04	9	
4	<0.04	>0.00	10		2.76	0.44	10		1.51	0.28	10		8.52	1.19	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for GGT is 0.04 - this value is used in the calculation

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Males

GROUP	CREAT				GLUC				Na				K			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	25.9	1.9	10		6.84	1.49	10		147.1	1.1	10		6.67	0.30	10	
2	26.2	0.9	10		6.84	2.19	10		146.7	1.3	10		6.57	0.34	10	
3	26.0	3.7	9		6.42	0.40	9		147.8	1.3	9		6.63	0.31	9	
4	25.7	2.0	10		6.42	0.58	10		147.5	1.7	10		6.68	0.34	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Males

GROUP	Ca				Mg				P				Cl			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	2.88	0.07	10		1.17	0.07	10		2.86	0.20	10		100.0	1.1	10	
2	2.88	0.08	10		1.15	0.08	10		2.96	0.14	10		100.1	1.0	10	
3	2.80	0.07	9		1.10	0.07	9		2.89	0.23	9		100.7	1.5	9	
4	2.81	0.07	10		1.15	0.09	10		3.08	0.19	10		101.5	2.1	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Males

GROUP	PROTEIN				ALB				GLOBULIN				ALB/G Ratio			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	74.0	2.5	10		46.4	1.3	10		27.6	1.8	10		1.69	0.10	10	
2	74.2	2.4	10		46.1	1.6	10		28.1	1.6	10		1.65	0.10	10	
3	71.4	3.5	9		45.0	1.4	9		26.4	2.7	9		1.72	0.16	9	
4	72.3	2.8	10		45.6	1.6	10		26.7	2.0	10		1.72	0.14	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Females

GROUP	ALAT				ASAT				ALKPH				BILI			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	0.94	0.10	10		1.48	0.21	10		2.19	0.49	10		<1.59	>0.37	10	
2	0.95	0.13	10		1.65	0.22	10		2.08	0.46	10		<1.68	>0.28	10	
3	1.06	0.20	9		1.81	0.50	9		3.39	3.22	9		<1.63	>0.31	9	
4	0.91	0.16	10		1.60	0.19	10		2.03	0.45	10		<1.57	>0.28	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI is 1.3 - this value is used in the calculation

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Females

GROUP	GGT				CHOL				TRIG				UREA			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	<0.04	>0.00	10		3.04	0.52	10		1.13	0.48	10		7.10	1.06	10	
2	<0.04	>0.00	10		2.97	0.63	10		1.31	0.90	10		7.23	1.03	10	
3	<0.04	>0.00	9		2.91	0.41	9		1.15	0.41	9		7.78	0.65	9	
4	<0.04	>0.00	10		2.87	0.41	10		1.16	0.46	10		7.25	1.09	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for GGT is 0.04 - this value is used in the calculation

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Females

GROUP	CREAT				GLUC				Na				K			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	28.3	3.3	10		6.48	0.46	10		146.4	0.9	10		6.48	0.34	10	
2	28.5	2.8	10		6.28	0.47	10		146.7	1.0	10		6.27	0.23	10	
3	27.3	2.1	9		6.32	0.50	9		147.2	1.4	9		6.40	0.44	9	
4	28.4	2.0	10		6.46	0.47	10		146.3	0.8	10		6.51	0.32	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Females

GROUP	Ca				Mg				P				Cl			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	2.85	0.07	10		1.20	0.09	10		2.35	0.31	10		100.5	1.6	10	
2	2.86	0.05	10		1.16	0.07	10		2.52	0.24	10		100.3	1.6	10	
3	2.85	0.05	9		1.16	0.09	9		2.47	0.28	9		101.1	1.2	9	
4	2.84	0.09	10		1.16	0.05	10		2.44	0.33	10		100.3	1.6	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Group mean values - Before termination of treatment

Females

GROUP	PROTEIN				ALB				GLOBULIN				ALB/G Ratio			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1	75.0	2.8	10		50.4	2.1	10		24.6	2.0	10		2.06	0.21	10	
2	73.5	4.1	10		48.9	2.6	10		24.6	1.9	10		2.00	0.13	10	
3	72.4	3.6	9		48.6	2.9	9		23.8	2.9	9		2.07	0.31	9	
4	73.0	3.5	10		48.7	3.3	10		24.3	2.1	10		2.02	0.25	10	

Abbreviations and units are explained in subsection 'Clinical pathology'

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 8 Organ weight – Group mean values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	BODY WT, g				ADRENALS ABSOLUTE				ADRENALS RELATIVE				ADRENALS % OF BRAIN WT			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	450.7	38.7	10		53.5	5.9	10		0.0120	0.0019	10		2.34	0.32	10	
2	413.7	30.4	10		56.0	8.2	10		0.0136	0.0024	10		2.52	0.39	10	
3	436.2	18.9	9		54.1	8.6	9		0.0124	0.0020	9		2.39	0.39	9	
4	426.9	42.1	10		57.9	12.6	10		0.0135	0.0021	10		2.64	0.56	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	BRAIN				BRAIN				EPIDIDYMIDES				EPIDIDYMIDES			
	ABSOLUTE				RELATIVE				ABSOLUTE				RELATIVE			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	2298	89	10		0.513	0.042	10		1344	169	10		0.298	0.024	10	
2	2224	46	10	*	0.540	0.035	10		1366	104	10		0.331	0.029	10	
3	2260	56	9		0.519	0.022	9		1383	122	9		0.318	0.033	9	
4	2191	65	10	**	0.518	0.050	10		1339	121	10		0.316	0.039	10	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	EPIDIDYMIDES				HEART				HEART				HEART			
	% OF BRAIN WT				ABSOLUTE				RELATIVE				% OF BRAIN WT			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	58.4	6.1	10		1611	178	10		0.358	0.036	10		70.3	9.5	10	
2	61.4	4.7	10		1457	143	10		0.353	0.032	10		65.5	5.7	10	
3	61.2	5.2	9		1508	207	9		0.346	0.046	9		66.7	8.8	9	
4	61.1	5.2	10		1424	149	10		0.334	0.029	10		65.0	6.5	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	KIDNEYS				KIDNEYS				KIDNEYS				LIVER			
	ABSOLUTE				RELATIVE				% OF BRAIN WT				ABSOLUTE			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	3018	245	10		0.671	0.033	10		131.4	9.4	10		15996	1780	10	
2	2756	254	10		0.667	0.045	10		123.9	10.7	10		14373	1584	10	
3	2945	212	9		0.675	0.036	9		130.3	8.1	9		15460	1501	9	
4	2939	288	10		0.693	0.082	10		134.3	14.1	10		15295	1864	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	LIVER				LIVER				SPLEEN				SPLEEN			
	RELATIVE				% OF BRAIN WT				ABSOLUTE				RELATIVE			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	3.55	0.19	10		696.2	73.8	10		909	151	10		0.201	0.022	10	
2	3.47	0.25	10		645.9	67.7	10		884	140	10		0.214	0.031	10	
3	3.54	0.30	9		684.0	62.4	9		868	95	9		0.200	0.027	9	
4	3.59	0.37	10		699.2	92.4	10		909	84	10		0.213	0.014	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	SPLEEN				TESTES				TESTES				TESTES			
	% OF BRAIN WT				ABSOLUTE				RELATIVE				% OF BRAIN WT			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	39.5	6.4	10		3695	472	10		0.821	0.083	10		160.6	17.7	10	
2	39.7	5.7	10		3693	271	10		0.895	0.071	10		166.1	13.0	10	
3	38.4	4.2	9		3826	235	9		0.877	0.045	9		169.3	10.0	9	
4	41.5	3.7	10		3727	206	10		0.878	0.068	10		170.2	9.8	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Males

GROUP	THYMUS				THYMUS				THYMUS			
	ABSOLUTE				RELATIVE				% OF BRAIN WT			
	MEAN	S.D.	N	p	MEAN	S.D.	N	p	MEAN	S.D.	N	p
1	478	96	10		0.106	0.018	10		20.9	4.5	10	
2	412	79	10		0.099	0.016	10		18.5	3.4	10	
3	456	116	9		0.104	0.025	9		20.2	5.1	9	
4	420	79	10		0.098	0.014	10		19.2	3.6	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	BODY WT, g				ADRENALS ABSOLUTE				ADRENALS RELATIVE				ADRENALS % OF BRAIN WT			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	270.2	20.0	10		75.7	9.3	10		0.0280	0.0028	10		3.61	0.48	10	
2	263.4	10.1	10		71.3	10.3	10		0.0271	0.0040	10		3.35	0.50	10	
3	273.6	20.9	9		72.6	8.5	9		0.0266	0.0032	9		3.50	0.43	9	
4	271.4	11.3	10		74.2	12.8	10		0.0274	0.0051	10		3.57	0.71	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	BRAIN				BRAIN				HEART				HEART			
	ABSOLUTE				RELATIVE				ABSOLUTE				RELATIVE			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	2098	50	10		0.780	0.057	10		1070	100	10		0.397	0.042	10	
2	2128	50	10		0.809	0.032	10		1031	80	10		0.391	0.026	10	
3	2076	84	9		0.762	0.057	9		1144	78	9		0.420	0.041	9	
4	2087	69	10		0.770	0.040	10		1073	81	10		0.396	0.032	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	HEART				KIDNEYS				KIDNEYS				KIDNEYS			
	% OF BRAIN WT				ABSOLUTE				RELATIVE				% OF BRAIN WT			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	51.0	5.0	10		1936	153	10		0.718	0.053	10		92.3	7.7	10	
2	48.4	3.3	10		1873	105	10		0.712	0.044	10		88.1	4.9	10	
3	55.2	4.3	9		1912	203	9		0.698	0.046	9		92.2	10.8	9	
4	51.5	4.8	10		1907	135	10		0.703	0.040	10		91.4	6.5	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	LIVER				LIVER				LIVER				OVARIES			
	ABSOLUTE				RELATIVE				% OF BRAIN WT				ABSOLUTE			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	8996	728	10		3.34	0.28	10		429.2	38.7	10		106.2	11.4	10	
2	9038	769	10		3.43	0.28	10		424.7	34.6	10		97.0	13.8	10	
3	9060	992	9		3.31	0.16	9		436.9	51.0	9		100.3	18.4	9	
4	9264	412	10		3.42	0.18	10		444.6	27.7	10		102.3	16.8	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	OVARIES				OVARIES				SPLEEN				SPLEEN			
	RELATIVE				% OF BRAIN WT				ABSOLUTE				RELATIVE			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	0.0393	0.0033	10		5.06	0.55	10		666	119	10		0.245	0.028	10	
2	0.0368	0.0044	10		4.56	0.67	10		616	63	10		0.234	0.024	10	
3	0.0365	0.0054	9		4.82	0.85	9		722	78	9		0.264	0.025	9	
4	0.0377	0.0064	10		4.91	0.85	10		707	102	10		0.261	0.037	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	SPLEEN				THYMUS				THYMUS				THYMUS			
	% OF BRAIN WT				ABSOLUTE				RELATIVE				% OF BRAIN WT			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	31.7	5.5	10		311	66	10		0.115	0.020	10		14.8	3.0	10	
2	28.9	2.8	10		298	29	10		0.113	0.011	10		14.1	1.6	10	
3	34.8	3.2	9		345	60	9		0.126	0.021	9		16.7	3.1	9	
4	33.9	4.9	10		300	64	10		0.110	0.021	10		14.3	2.9	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

SP 387/TL1

A 3-Month Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and % of brain wt) organ weight

Group mean values

Females

GROUP	UTERUS				UTERUS				UTERUS			
	ABSOLUTE				RELATIVE				% OF BRAIN WT			
	Mean	S.D	N	p	Mean	S.D	N	p	Mean	S.D	N	p
1	836	280	10		0.308	0.092	10		39.8	13.1	10	
2	843	363	10		0.321	0.139	10		39.8	17.6	10	
3	689	142	9		0.254	0.062	9		33.4	7.8	9	
4	710	270	10		0.260	0.089	10		33.9	12.5	10	

p>0.05, versus control group

S.D. = standard deviation N = number of animals

Table 9 Clinical signs – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical signs

Individual findings

Group 1 – Vehicle

Animal Nos 1-5
No adverse clinical signs.

Animal No 6
Days 31-93: Hairless on the forelegs and on the forepaws.

Animal No 7
No adverse clinical signs.

Animal No 8
Day 81: 15 min after dosing: Convulsions. After 5 min appeared normal.

Animal No 9-10
No adverse clinical signs.

Animal No 11
Day 13: Slight bleeding in connection with insertion of the gavage.

Animal No 12
No adverse clinical signs.

Animal No 13
Days 56-69: Thin haired on the right foreleg.
Days 70-92: Thin haired on the forelegs and on the forepaws.

Animal No 14-17
No adverse clinical signs.

Animal No 18
Days 56-72: Thin haired on the forelegs and on the forepaws.

Animal No 19-20
No adverse clinical signs.

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical signs

Individual findings

Group 2 – 58 mg (10%) TOS*/kg b.w./day

Animal No 21

Days 84-92:	Thin haired on the forelegs and on the forepaws.

Animal No 22-34

No adverse clinical signs.

Animal No 35

Day 58:	Slight secretion in the left eye.
Days 84, 86:	Secretion around the right eye.
Day 87:	Secretion around the right eye. Rinsed.
Days 91-92:	Secretion at the right eye.

Animal No 36-40

No adverse clinical signs.

* = Total Organic Solids

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical signs

Individual findings

Group 3 –192 mg (33%) TOS*/kg b.w./day

Animal No 41
Days 63-65: Slight secretion around the right eye.

Animal Nos 42-43
No adverse clinical signs.

Animal No 44
Days 42-43: Slightly red secretion in the left eye.

Animal Nos 45-46
No adverse clinical signs.

Animal No 47
Days 35-41: Thin haired on the loins.

Animal No 48
No adverse clinical signs.

Animal No49
Day 35: Found dead at the morning observation.

Animal No 50
No adverse clinical signs.

Animal No 51
Day 69: Found dead 1½ hours after dosing.

Animal No 52-56
No adverse clinical signs.

Animal No 57
Days 49-65: Thin haired on the forelegs and on the forepaws.

Animal No 58
Days 44-93: Thin haired on the forelegs and on the forepaws.

Animal No 59
No adverse clinical signs.

Animal No 60
Days 46-93: Thin haired on the chest.

* = Total Organic Solids

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical signs

Individual findings

Group 4 – 581 mg (100%) TOS*/kg b.w./day

Animal No 61
Days 63-65: Red secretion around the nose.

Animal No 62-64
No adverse clinical signs.

Animal No 65
Day 6: Dry blood around the nose.

Animal No 66
No adverse clinical signs.

Animal No 67
Days 1-6: Wound on the left ear.

Animal No 68
Days 1-39: Hairless on the forelegs and on the forepaws.
Days 40-93: Thin haired on the forelegs and on the forepaws.

Animal No 69
Days 71-77: Red secretion around both eyes.
Day 86: Secretion around the left eye.

Animal No 70
No adverse clinical signs.

Animal No 71
Days 35-41: Thin haired on the forepaws.
Days 42-83: Thin haired on the forelegs and on the forepaws.
Days 84-92: Hairless on the forelegs and on the forepaws.

Animal No 72
Days 84-92: Thin haired on the forelegs and on the forepaws.

Animal No 73
No adverse clinical signs.

Animal No 74
Days 64-92: Bend at the tip of the tail.

Animal No 75
Days 84-92: Thin haired on both ears and down the neck, left side.

Animal No 76
Days 26-27: Hairless on the forelegs.
Day 28-93: Thin haired/hairless on the forelegs and on the forepaws.

Animal Nos 77-80
No adverse clinical signs.

* = Total Organic Solids

Table 10 Stimuli-induced clinical observations – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Males

GROUP	ANIMAL NO	PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
1	1	1	1	1	1	1	1
	2	1	1	1	1	1	1
	3	1	1	1	1	1	1
	4	1	1	1	1	1	1
	5	1	1	1	1	1	1
	6	1	1	1	1	1	1
	7	1	1	1	1	1	1
	8	1	1	1	1	1	1
	9	1	1	1	1	1	1
	10	1	1	1	1	1	1
2	21	1	1	1	1	1	1
	22	1	1	1	1	1	1
	23	1	1	1	1	1	1
	24	1	1	1	1	1	1
	25	1	1	1	1	1	1
	26	1	1	1	1	1	1
	27	1	1	1	1	1	1
	28	1	1	1	1	1	1
	29	1	1	1	1	1	1
	30	1	1	1	1	1	1

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Males

GROUP	ANIMAL NO		PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
3	41		1	1	1	1	1	1
	42		1	1	1	1	1	1
	43		1	1	1	1	1	1
	44		1	1	1	1	1	1
	45		1	1	1	1	1	1
	46		1	1	1	1	1	1
	47		1	1	1	1	1	1
	48		1	1	1	1	1	1
	49	d						
	50		1	1	1	1	1	1
4	61		1	1	1	1	1	1
	62		1	1	1	1	1	1
	63		1	1	1	1	1	1
	64		1	1	1	1	1	1
	65		1	1	1	1	1	1
	66		1	1	1	1	1	1
	67		1	1	1	1	1	1
	68		1	1	1	1	1	1
	69		1	1	1	1	1	1
	70		1	1	1	1	1	1

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Males

GROUP	ANIMAL NO	HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
1	1	1	1	1	1	1
	2	1	1	1	1	1
	3	1	1	1	1	1
	4	1	1	1	1	1
	5	1	1	1	1	1
	6	1	1	1	1	1
	7	1	1	1	1	1
	8	1	1	1	1	1
	9	1	1	1	1	1
	10	1	1	1	1	1
2	21	1	1	1	1	1
	22	1	1	1	1	1
	23	1	1	1	1	1
	24	1	1	1	1	1
	25	1	1	1	1	1
	26	1	1	1	1	1
	27	1	1	1	1	1
	28	1	1	1	1	1
	29	1	1	1	1	1
	30	1	1	1	1	1

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Males

GROUP	ANIMAL NO		HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
3	41		1	1	1	1	1
	42		1	1	1	1	0
	43		1	1	1	1	1
	44		1	1	1	1	1
	45		1	1	1	1	1
	46		1	1	1	1	1
	47		1	1	1	1	1
	48		1	1	1	1	1
	49	d					
	50		1	1	1	1	1
4	61		1	1	1	1	0
	62		1	1	1	1	1
	63		1	1	1	1	1
	64		1	1	1	1	1
	65		1	1	1	1	1
	66		1	1	1	1	1
	67		1	1	1	1	0
	68		1	1	1	1	1
	69		1	1	1	1	1
	70		1	1	1	1	1

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Females

GROUP	ANIMAL NO	PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
1	11	1	1	1	1	1	1
	12	1	1	1	1	1	1
	13	1	1	1	1	1	1
	14	1	1	1	1	1	1
	15	1	1	1	1	1	1
	16	1	1	1	1	1	1
	17	1	1	1	1	1	1
	18	1	1	1	1	1	1
	19	1	1	1	1	1	1
	20	1	1	1	1	1	1
2	31	1	1	1	1	1	1
	32	1	1	1	1	1	1
	33	1	1	1	1	1	1
	34	1	1	1	1	1	1
	35	1	1	1	1	1	1
	36	1	1	1	1	1	1
	37	1	1	1	1	1	1
	38	1	1	1	1	1	1
	39	1	1	1	1	1	1
	40	1	1	1	1	1	1

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Females

GROUP	ANIMAL NO		PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
3	51	d						
	52		1	1	1	1	1	1
	53		1	1	1	1	1	1
	54		1	1	1	1	1	1
	55		1	1	1	1	1	1
	56		1	1	1	1	1	1
	57		1	1	1	1	1	1
	58		1	1	1	1	1	1
	59		1	1	1	1	1	1
	60		1	1	1	1	1	1
4	71		1	1	1	1	1	1
	72		1	1	1	1	1	1
	73		1	1	1	1	1	1
	74		1	1	1	1	1	1
	75		1	1	1	1	1	1
	76		1	1	1	1	1	1
	77		1	1	1	1	1	1
	78		1	1	1	1	1	1
	79		1	1	1	1	1	1
	80		1	1	1	1	1	1

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Females

GROUP	ANIMAL NO	HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
1	11	1	1	1	1	1
	12	1	1	1	1	1
	13	1	1	1	1	1
	14	1	1	1	1	1
	15	1	1	1	1	1
	16	1	1	1	1	1
	17	1	1	1	1	1
	18	1	1	1	1	1
	19	1	1	1	1	1
	20	1	1	1	1	1
2	31	1	1	1	1	1
	32	1	1	1	1	1
	33	1	1	1	1	1
	34	1	1	1	1	1
	35	1	1	1	1	1
	36	1	1	1	1	1
	37	1	1	1	1	1
	38	1	1	1	1	1
	39	1	1	1	1	1
	40	1	1	1	1	1

SP 387/TL1

A 3-Month Toxicity Study in Rats

Stimuli-induced clinical observations

Individual values

Females

GROUP	ANIMAL NO		HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
3	51	d					
	52		1	1	1	1	1
	53		1	1	1	1	1
	54		1	1	1	1	1
	55		1	1	1	1	1
	56		1	1	1	1	1
	57		1	1	1	1	1
	58		1	1	1	1	1
	59		1	1	1	1	1
	60		1	1	1	1	1
4	71		1	1	1	1	1
	72		1	1	1	1	1
	73		1	1	1	1	1
	74		1	1	1	1	1
	75		1	1	1	1	1
	76		1	1	1	1	1
	77		1	1	1	1	1
	78		1	1	1	1	1
	79		1	1	1	1	1
	80		1	1	1	1	1

d = dead before termination of treatment

Table 11 Open field testing – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Individual values

Males

GROUP	ANIMAL NO	TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY	TOTAL CORNER VISITS	MOVES/ COUNTS	FAECES
1	1	164	23.4	22	64	236	4	822	7
	2	171	20.9	15	108	192	5	857	0
	3	188	30.5	23	107	193	9	941	0
	4	193	30.8	36	85	215	5	964	0
	5	185	28.0	17	91	209	6	925	0
	6	193	26.6	25	81	219	8	967	5
	7	187	30.9	17	100	200	2	935	0
	8	203	30.8	56	91	209	11	1014	0
	9	172	27.0	13	80	220	9	862	0
	10	167	35.5	74	93	207	11	837	2
2	21	186	23.4	33	67	233	4	930	3
	22	167	25.6	28	105	195	6	833	0
	23	191	29.5	17	115	185	4	955	1
	24	183	31.6	19	106	194	9	916	0
	25	156	19.8	18	80	220	6	779	0
	26	194	27.8	26	65	235	6	972	0
	27	166	23.2	24	96	204	8	829	0
	28	170	23.5	54	72	228	10	851	0
	29	176	26.0	33	52	248	7	881	1
	30	170	23.6	17	64	236	3	851	2

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Individual values

Males

GROUP	ANIMAL NO	TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY	TOTAL CORNER VISITS	MOVES/ COUNTS	FAECES
3	41	167	20.4	15	84	216	6	837	0
	42	168	23.4	11	118	182	7	839	2
	43	197	31.9	30	77	223	8	984	9
	44	174	24.2	17	78	222	7	870	4
	45	147	21.2	20	119	181	8	733	0
	46	182	29.6	31	86	214	7	908	2
	47	185	22.0	20	52	248	5	924	0
	48	187	21.6	18	95	205	6	937	6
	49	d							
	50	179	30.3	22	83	217	9	894	0
4	61	147	14.6	4	128	172	1	734	0
	62	169	22.6	17	104	196	4	845	0
	63	193	27.8	21	64	236	10	966	3
	64	187	31.4	36	82	218	8	933	0
	65	186	26.2	19	72	228	4	931	0
	66	193	26.9	17	79	221	3	966	0
	67	127	10.6	4	42	258	1	635	4
	68	176	26.2	25	102	198	4	878	0
	69	152	19.6	22	63	237	7	761	0
	70	184	36.7	30	88	212	10	920	0

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Individual values

Females

GROUP	ANIMAL NO	TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY	TOTAL CORNER VISITS	MOVES/ COUNTS	FAECES
1	11	186	27.5	0	48	252	0	929	0
	12	171	28.3	0	55	245	0	856	0
	13	179	30.5	27	81	219	9	896	0
	14	187	31.0	28	80	220	8	934	0
	15	158	25.6	19	106	194	6	789	0
	16	171	31.4	19	95	205	10	853	1
	17	175	25.9	35	85	215	2	874	0
	18	165	24.5	21	105	195	4	826	0
	19	175	29.9	24	90	210	6	874	0
	20	198	30.5	37	76	224	4	992	0
2	31	179	28.4	0	70	230	0	895	0
	32	188	33.0	0	82	218	0	939	0
	33	186	40.6	33	69	231	11	929	0
	34	172	33.8	38	71	229	10	862	0
	35	163	26.2	19	53	247	7	817	0
	36	153	27.6	21	119	181	9	767	0
	37	187	35.4	36	92	208	6	935	0
	38	182	35.4	57	82	218	8	909	0
	39	171	20.7	38	52	248	0	857	0
	40	168	27.5	30	67	233	0	841	0

SP 387/TL1

A 3-Month Toxicity Study in Rats

Open field testing

Individual values

Females

GROUP	ANIMAL NO		TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY	TOTAL CORNER VISITS	MOVES/ COUNTS	FAECES
3	51	d								
	52		171	31.7	0	72	228	0	854	0
	53		172	29.2	41	82	218	12	860	0
	54		178	32.1	45	60	240	11	890	0
	55		180	32.2	36	101	199	6	900	0
	56		184	28.6	20	59	241	8	921	0
	57		171	27.0	17	100	200	6	856	0
	58		147	32.0	32	77	223	11	735	0
	59		174	36.3	31	100	200	12	872	0
	60		132	19.7	14	104	196	4	661	0
4	71		72	6.5	16	30	270	2	359	9
	72		174	28.2	26	63	237	8	872	0
	73		177	26.4	19	89	211	6	886	0
	74		177	26.1	28	67	233	8	885	0
	75		156	23.0	17	84	216	3	779	0
	76		145	20.9	12	127	173	4	727	0
	77		173	31.6	34	105	195	6	867	0
	78		165	24.4	20	86	214	6	823	0
	79		175	25.0	24	72	228	13	874	0
	80	#	195	29.8	31	78	222	8	973	

d = dead before termination of treatment
# = faeces not recorded in error

Table 12 Body weight – Individual values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Males

GROUP	ANIMAL NO	ON ARRIVAL	DAY 1	DAY 7	DAY 14	DAY 21	DAY 28	DAY 35	DAY 42
1	1	128	170	201	240	272	299	334	369
	2	130	164	207	254	290	310	353	385
	3	127	153	190	231	258	277	310	333
	4	141	175	230	265	301	323	362	380
	5	126	171	197	235	262	286	315	347
	6	131	174	203	242	273	300	324	360
	7	146	158	216	247	272	313	368	403
	8	138	164	218	256	285	323	368	394
	9	127	171	203	239	275	300	352	391
	10	122	166	195	231	260	284	319	340
2	21	126	173	200	253	292	321	360	382
	22	126	162	184	217	248	281	325	358
	23	122	160	193	226	262	281	311	335
	24	135	178	207	239	269	292	323	347
	25	127	159	201	249	287	319	359	384
	26	124	156	190	232	261	286	320	344
	27	122	164	190	221	248	274	305	329
	28	126	176	202	227	261	285	331	357
	29	124	163	191	221	248	270	306	330
	30	128	172	205	241	264	282	309	325

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Males

GROUP	ANIMAL NO		ON ARRIVAL	DAY 1	DAY 7	DAY 14	DAY 21	DAY 28	DAY 35	DAY 42
3	41		131	177	212	249	285	320	347	374
	42		135	176	215	247	284	318	344	371
	43		121	156	186	231	269	297	329	352
	44		130	162	201	243	276	297	329	354
	45		124	167	197	232	271	298	334	360
	46		121	157	189	220	250	274	311	330
	47		135	156	195	221	241	271	307	325
	48		120	164	195	236	272	301	342	364
	49	d	125	164	186	227	256	286	317	
	50		135	182	214	251	294	318	362	370
4	61		126	159	195	227	265	292	330	354
	62		121	159	191	225	262	286	316	333
	63		135	173	210	245	294	325	373	389
	64		122	159	187	215	244	266	292	308
	65		126	174	201	234	270	286	312	325
	66		129	172	202	238	281	316	365	392
	67		123	164	192	207	249	278	320	352
	68		125	160	188	204	244	280	317	350
	69		141	180	217	242	282	312	346	372
	70		120	166	199	233	262	288	316	327

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Males

GROUP	ANIMAL NO	DAY 49	DAY 56	DAY 63	DAY 70	DAY 77	DAY 84	DAY 91	BODY WT GAIN DAY 1 TO 91
1	1	388	397	414	430	434	458	463	293
	2	408	418	433	450	453	461	473	309
	3	342	353	366	372	377	394	392	239
	4	393	400	423	429	435	448	455	280
	5	367	384	400	412	428	444	460	289
	6	387	399	420	426	437	447	462	288
	7	425	439	467	483	498	506	511	353
	8	422	435	454	476	486	506	501	337
	9	414	427	457	470	482	502	505	334
	10	356	358	377	391	391	404	406	240
2	21	404	417	438	445	459	475	481	308
	22	373	384	405	414	424	443	446	284
	23	345	359	370	377	387	398	406	246
	24	368	378	392	393	402	416	420	242
	25	402	411	423	431	438	457	454	295
	26	353	359	383	384	388	401	409	253
	27	352	362	376	384	390	400	404	240
	28	383	401	420	432	438	450	454	278
	29	350	358	373	383	386	395	403	240
	30	338	344	358	364	369	381	383	211

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Males

GROUP	ANIMAL NO		DAY 49	DAY 56	DAY 63	DAY 70	DAY 77	DAY 84	DAY 91	BODY WT GAIN DAY 1 TO 91
3	41		399	408	421	432	440	435	451	274
	42		389	402	421	433	444	432	456	280
	43		369	384	403	419	423	443	442	286
	44		377	386	405	413	418	432	435	273
	45		378	392	410	423	424	442	445	278
	46		353	366	381	390	392	403	411	254
	47		365	376	397	407	415	422	431	275
	48		397	415	436	453	460	471	477	313
	49	d								
	50		394	402	423	437	437	466	472	290
4	61		370	390	409	416	429	434	441	282
	62		345	356	381	384	387	402	411	252
	63		426	442	466	480	497	509	515	342
	64		332	345	359	365	371	381	388	229
	65		354	358	373	376	389	401	415	241
	66		424	436	458	464	480	493	498	326
	67		363	382	398	403	412	420	424	260
	68		368	385	407	419	429	445	450	290
	69		389	404	429	441	444	456	458	278
	70		339	349	367	373	378	386	398	232

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Females

GROUP	ANIMAL NO	ON ARRIVAL	DAY 1	DAY 7	DAY 14	DAY 21	DAY 28	DAY 35	DAY 42
1	11	126	146	170	183	189	205	217	221
	12	127	155	184	209	251	258	258	276
	13	128	159	172	186	200	213	230	233
	14	124	169	189	204	235	260	274	268
	15	123	165	182	202	224	241	264	279
	16	125	157	175	196	209	229	237	254
	17	137	166	175	189	202	207	222	227
	18	129	158	169	190	206	227	237	243
	19	129	164	180	194	211	223	233	239
	20	137	165	181	196	209	225	242	229
2	31	138	176	193	218	225	251	254	257
	32	122	159	169	187	202	221	243	256
	33	132	143	166	183	200	208	234	249
	34	137	164	181	201	214	224	238	241
	35	130	169	191	192	214	244	260	249
	36	125	157	174	190	213	225	231	239
	37	123	151	163	182	198	215	234	237
	38	122	155	173	190	200	224	236	238
	39	124	155	170	183	200	220	234	237
	40	125	162	175	182	202	217	229	234

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Females

GROUP	ANIMAL NO	ON ARRIVAL	DAY 1	DAY 7	DAY 14	DAY 21	DAY 28	DAY 35	DAY 42
3	51	146	160	184	196	211	221	225	226
	52	140	158	190	220	238	238	242	252
	53	129	167	184	206	222	237	250	262
	54	120	154	178	188	212	235	247	246
	55	138	175	194	213	235	257	258	270
	56	126	153	166	170	191	204	209	211
	57	142	159	170	191	202	215	222	231
	58	136	172	185	208	225	242	241	249
	59	125	150	185	211	228	239	246	256
	60	137	148	182	201	220	230	238	255
4	71	143	183	186	217	241	266	263	269
	72	120	151	170	189	211	226	240	252
	73	131	150	161	183	217	215	225	221
	74	118	148	169	201	204	220	230	254
	75	132	164	178	198	215	230	242	257
	76	128	158	171	201	211	216	227	252
	77	124	152	165	186	216	217	232	240
	78	123	152	169	187	199	218	225	228
	79	143	173	185	206	236	248	253	259
	80	123	165	180	203	221	232	251	264

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Females

GROUP	ANIMAL NO	DAY 49	DAY 56	DAY 63	DAY 70	DAY 77	DAY 84	DAY 91	BODY WT GAIN DAY 1 TO 91
1	11	229	240	240	242	251	254	249	103
	12	284	286	313	322	317	314	306	151
	13	236	242	248	255	257	264	259	100
	14	271	273	279	287	285	294	296	127
	15	283	282	295	302	300	313	315	150
	16	258	265	260	276	278	282	283	126
	17	238	236	251	243	252	254	261	95
	18	271	275	265	269	272	282	279	121
	19	251	256	261	260	268	273	265	101
	20	247	261	262	260	272	287	270	105
2	31	266	272	287	280	298	286	289	113
	32	245	257	258	258	264	266	265	106
	33	241	238	246	247	246	256	253	110
	34	242	252	256	257	254	270	268	104
	35	251	254	262	281	288	280	280	111
	36	241	253	258	261	266	267	268	111
	37	244	248	256	260	260	262	267	116
	38	240	253	261	262	254	267	270	115
	39	248	255	262	258	262	270	280	125
	40	244	253	260	254	265	269	276	114

SP 387/TL1

A 3-Month Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - From arrival to day 91

Females

GROUP	ANIMAL NO		DAY 49	DAY 56	DAY 63	DAY 70	DAY 77	DAY 84	DAY 91	BODY WT GAIN DAY 1 TO 91
3	51	d	236	240	249					
	52		258	279	284	274	285	287	283	125
	53		269	272	284	288	288	293	290	123
	54		254	257	267	267	274	283	295	141
	55		284	287	294	299	300	272	306	131
	56		221	231	230	224	238	204	240	87
	57		239	243	250	255	254	265	262	103
	58		257	276	269	268	278	280	279	107
	59		264	271	272	276	283	288	283	133
	60		272	276	272	264	266	277	280	132
4	71		271	282	305	298	292	303	288	105
	72		266	258	275	274	272	280	273	122
	73		241	235	255	260	275	265	265	115
	74		266	251	260	267	283	279	274	126
	75		269	271	286	282	285	291	293	129
	76		252	250	262	266	269	270	276	118
	77		249	253	265	260	268	271	276	124
	78		239	249	253	249	251	258	265	113
	79		262	260	265	262	271	265	271	98
	80		270	281	287	300	291	286	297	132

d = dead before termination of treatment

Table 13 Food consumption – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Values per animal - Week 1 - Week 13

Males

GROUP	CAGE NO		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7
1	1		170.5	216.5	226.5	246.5	166.5	192.5	192.0
	2		168.5	210.0	241.5	231.0	158.5	173.0	171.5
	3		173.0	200.5	201.5	253.5	146.5	188.0	186.0
	4		177.5	202.5	183.0	236.0	174.0	184.0	185.5
	5		175.5	204.5	213.0	220.5	155.5	175.5	182.5
2	11		170.0	201.5	224.5	238.0	156.0	180.5	176.5
	12		158.0	185.5	199.5	209.0	143.5	164.5	162.5
	13		157.0	209.5	219.5	224.5	154.0	168.5	166.5
	14		141.5	172.0	177.0	179.0	148.5	152.0	178.0
	15		168.5	187.0	186.5	181.0	149.5	162.5	161.0
3	21		163.0	190.0	215.5	230.5	154.5	173.5	182.0
	22		107.0	218.0	248.0	255.0	150.0	174.5	178.5
	23		151.0	192.0	198.5	208.5	147.5	172.5	161.5
	24		159.5	187.0	211.0	233.0	158.5	178.7	185.7
	25	d	158.5	196.0	207.0	213.0	154.0		
4	31		163.5	186.0	223.0	233.0	161.5	179.0	175.0
	32		163.0	203.5	215.0	206.5	167.5	190.5	182.5
	33		164.0	187.5	238.0	220.0	156.5	195.5	187.5
	34		138.0	123.0	233.5	223.0	154.5	184.0	176.5
	35		165.0	186.5	231.5	227.0	152.0	169.0	150.0

d = one animal died, cage-mate moved to another cage

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Values per animal - Week 1 - Week 13

Males

GROUP	CAGE NO	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL WEEK 1 TO WEEK 13
1	1	215.5	192.5	206.5	197.5	213.0	204.5	2640.5
	2	177.0	180.0	183.0	178.0	183.5	176.0	2431.5
	3	195.0	183.0	188.5	192.5	194.0	206.5	2508.5
	4	193.5	187.0	206.0	208.5	211.5	205.0	2554.0
	5	199.0	191.5	198.0	197.0	199.5	195.5	2507.5
2	11	187.0	180.5	191.5	188.5	192.5	184.0	2471.0
	12	173.0	158.5	158.5	170.5	165.5	170.0	2218.5
	13	178.0	170.5	159.5	182.5	181.5	176.0	2347.5
	14	178.5	164.0	169.0	166.5	173.0	179.5	2178.5
	15	167.0	153.0	169.0	161.5	168.5	169.0	2184.0
3	21	183.0	180.5	191.5	189.5	176.5	207.0	2437.0
	22	194.0	193.5	202.5	197.5	210.0	192.5	2521.0
	23	181.5	161.5	166.0	170.5	175.0	176.5	2262.5
	24	182.7	180.0	195.0	193.0	197.0	201.0	2462.1
	25 d							
4	31	187.0	174.0	190.0	188.5	193.0	195.0	2448.5
	32	185.0	166.5	196.5	188.5	189.0	186.0	2440.0
	33	183.5	178.0	181.5	191.0	191.0	184.5	2458.5
	34	186.5	171.5	183.0	191.5	191.5	191.5	2348.0
	35	195.5	169.0	177.0	177.5	186.5	186.0	2372.5

d = one animal died, cage-mate moved to another cage

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Values per animal - Week 1 - Week 13

Females

GROUP	CAGE NO	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7
1	6	111.0	126.0	135.0	127.0	105.0	118.0	133.0
	7	110.0	129.0	146.0	154.5	124.0	114.5	113.0
	8	118.5	134.0	137.5	141.0	130.0	136.0	120.0
	9	96.0	119.0	125.0	141.5	104.0	110.5	124.5
	10	108.0	111.5	131.5	125.5	115.5	114.0	120.5
2	16	113.5	136.0	129.5	167.0	118.0	131.5	116.0
	17	106.5	128.5	128.5	136.0	120.5	130.5	108.0
	18	110.0	117.0	126.5	160.0	118.5	118.5	112.5
	19	104.5	124.0	119.5	139.0	120.0	115.0	124.0
	20	99.0	107.0	112.0	120.0	107.5	119.5	121.5
3	26	105.5	124.0	127.5	114.0	108.0	120.0	96.0
	27	131.5	135.0	145.0	161.0	155.0	116.5	127.5
	28	103.5	113.0	126.5	139.5	116.5	124.5	125.5
	29	102.5	121.0	118.0	127.0	107.0	117.0	117.0
	30	114.0	138.0	129.5	128.0	126.0	142.5	143.0
4	36	108.0	126.5	140.5	140.5	123.0	124.0	129.0
	37	103.5	131.5	128.0	117.0	119.5	128.0	136.5
	38	106.5	130.5	136.0	126.5	142.5	145.5	130.5
	39	102.0	115.5	120.5	117.5	112.0	120.5	119.0
	40	106.5	125.0	142.5	141.5	137.5	132.5	121.5

SP 387/TL1

A 3-Month Toxicity Study in Rats

Food consumption (g)

Values per animal - Week 1 - Week 13

Females

GROUP	CAGE NO		WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL WEEK 1 TO WEEK 13
1	6		127.5	140.0	138.0	134.0	110.5	119.0	1624.0
	7		141.0	122.5	126.5	132.0	128.0	129.5	1670.5
	8		137.5	131.0	139.0	143.0	141.5	136.5	1745.5
	9		125.0	109.5	110.0	122.0	121.5	121.5	1530.0
	10		130.5	126.0	124.0	131.0	139.0	117.5	1594.5
2	16		134.0	130.0	133.5	142.5	123.0	127.5	1702.0
	17		118.0	121.0	120.0	123.5	134.5	127.0	1602.5
	18		128.0	119.5	135.5	140.0	123.5	121.5	1631.0
	19		141.0	128.5	128.5	129.5	138.0	134.5	1646.0
	20		129.0	122.0	118.5	128.5	125.0	133.0	1542.5
3	26	d	149.0	128.0					
	27		137.5	136.0	135.5	131.0	133.7	140.3	1785.5
	28		131.5	118.5	131.0	135.5	98.5	156.0	1620.0
	29		132.0	113.5	116.5	121.0	121.0	122.0	1535.5
	30		147.0	120.5	125.0	137.5	139.5	140.5	1731.0
4	36		125.5	132.5	130.0	120.0	126.0	113.0	1638.5
	37		113.0	119.0	124.0	159.5	127.5	107.0	1614.0
	38		121.0	128.0	126.0	135.5	133.5	135.0	1697.0
	39		118.5	116.5	109.0	124.0	122.5	118.5	1516.0
	40		123.0	120.5	128.5	125.0	111.5	124.5	1640.0

d = one animal died, cage-mate moved to another cage

Table 14 Water consumption – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Males

GROUP	CAGE NO	DAY 4	DAY 7	DAY 10	DAY 14	DAY 17	DAY 21	DAY 24
1	1	79.5	74.0	75.0	96.0	62.5	103.5	73.0
	2	81.0	.	70.5	90.0	65.5	99.0	69.5
	3	67.5	66.0	76.0	89.0	e	124.0	76.0
	4	70.0	80.0	70.0	101.5	e	129.5	78.5
	5	61.5	62.0	60.5	84.5	59.0	90.0	67.5
2	11	64.0	61.0	67.0	84.5	64.5	94.0	67.0
	12	69.5	68.0	67.0	82.5	54.5	93.0	63.5
	13	80.0	64.5	72.5	91.0	65.5	85.5	68.0
	14	63.5	63.5	65.0	80.5	62.5	78.0	60.5
	15	65.5	66.0	63.5	84.0	55.5	89.0	81.0
3	21	69.0	79.5	77.5	90.5	75.0	116.5	78.0
	22	58.5	63.0	68.0	85.0	62.0	87.5	64.0
	23	60.5	63.0	59.5	78.5	59.5	88.0	62.0
	24	77.5	65.0	.	89.0	67.0	97.0	70.5
	25	73.0	74.5	.	86.5	68.5	95.0	72.0
4	31	61.5	68.5	66.0	81.0	63.0	96.0	64.5
	32	67.5	75.5	73.0	92.5	72.0	105.5	72.0
	33	83.5	72.5	68.5	86.0	78.0	107.5	66.0
	34	70.0	78.5	55.5	46.0	64.0	97.5	81.5
	35	71.0	75.5	67.0	81.5	67.5	95.0	70.0

. = water bottle has been dripping
e = not recorded in error

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Males

GROUP	CAGE NO		DAY 28	DAY 31	DAY 35	DAY 38	DAY 42	DAY 45	DAY 49
1	1		85.0	78.0	125.5	91.0	135.0	96.0	123.0
	2		.	75.0	118.5	70.5	130.5	76.0	97.0
	3		96.5	e	133.5	91.5	134.5	93.5	116.0
	4		106.5	89.5	146.5	103.0	146.5	92.0	138.5
	5		83.0	77.0	122.5	82.0	126.5	92.0	121.0
2	11		72.5	80.5	110.5	89.5	135.5	90.0	172.5
	12		78.5	54.5	130.5	86.5	126.0	86.0	116.0
	13		.	76.5	129.5	88.0	122.0	89.0	118.0
	14		80.0	80.0	123.5	88.0	104.0	100.0	120.5
	15		106.5	76.5	122.5	85.5	118.5	83.0	110.5
3	21		110.5	79.0	132.0	90.5	130.5	97.5	131.5
	22		77.5	80.0	117.0	85.5	119.5	84.5	113.5
	23		82.0	76.5	111.0	69.0	111.0	85.0	98.0
	24		83.5	56.5	124.0	97.7	99.7	99.0	122.3
	25	d	85.0	76.0	121.0				
4	31		88.5	81.5	123.5	87.0	126.0	89.0	103.5
	32		93.0	86.5	131.5	92.5	126.0	89.5	125.0
	33		86.0	81.5	130.5	100.5	127.0	100.0	121.0
	34		83.0	49.5	131.5	96.0	140.5	99.0	122.0
	35		87.0	77.0	126.5	93.0	122.0	89.5	97.0

d = one animal died, cage-mate moved to another cage
. = water bottle has been dripping
e = not recorded in error

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Males

GROUP	CAGE NO		DAY 52	DAY 56	DAY 59	DAY 63	DAY 66	DAY 70	DAY 73
1	1		85.5	123.0	87.5	124.0	94.0	123.5	86.5
	2		71.0	102.0	82.0	126.5	85.0	109.0	78.5
	3		85.5	115.5	83.5	120.0	94.5	122.0	108.0
	4		89.5	132.0	95.0	158.0	116.0	142.0	118.5
	5		86.5	121.5	89.0	126.0	91.5	118.5	103.0
2	11		82.0	115.5	79.0	131.5	101.0	119.0	106.0
	12		83.5	113.0	82.0	114.0	86.0	108.0	93.0
	13		83.5	115.0	84.0	110.0	86.0	89.0	90.0
	14		88.0	120.0	84.0	125.0	91.5	122.5	97.5
	15		77.0	105.0	77.0	104.0	79.0	116.5	91.0
3	21		96.5	129.0	91.5	139.0	106.0	142.0	114.5
	22		83.5	116.0	83.0	116.5	87.5	117.5	98.5
	23		90.0	112.5	74.5	109.5	81.0	102.5	84.5
	24		76.7	112.7	77.7	122.0	85.3	131.7	93.3
	25	d							
4	31		.	110.0	85.0	114.0	89.0	111.0	100.0
	32		83.5	126.5	63.5	135.0	94.5	122.0	102.5
	33		89.5	126.5	89.5	.	85.0	136.0	111.0
	34		103.0	132.5	82.0	138.5	101.0	125.0	105.5
	35		88.0	120.0	84.5	123.5	89.5	121.0	97.0

d = one animal died, cage-mate moved to another cage
. = water bottle has been dripping

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Males

GROUP	CAGE NO		DAY 77	DAY 80	DAY 84	DAY 87	DAY 91	TOTAL DAY 4 TO DAY 91
1	1		112.5	124.0	141.5	107.0	146.0	2652.0
	2		100.0	109.0	169.0	122.0	129.0	.
	3		120.0	123.5	135.5	126.5	131.0	.
	4		132.0	124.0	164.5	118.5	182.5	.
	5		95.5	113.5	135.5	101.0	149.0	2519.5
2	11		111.0	117.0	135.5	101.5	136.5	2588.5
	12		104.5	99.0	122.0	92.0	122.0	2395.0
	13		100.0	102.0	113.5	96.0	125.0	.
	14		108.0	98.0	130.5	98.0	128.0	2460.5
	15		107.0	98.5	123.0	94.0	121.5	2401.0
3	21		128.0	129.0	94.0	136.5	161.5	2825.0
	22		110.5	109.0	132.5	.	126.5	.
	23		95.5	92.0	109.5	84.0	108.0	2247.0
	24		104.7	102.7	136.3	103.7	141.7	.
	25	d						
4	31		111.0	111.0	132.0	101.0	147.0	.
	32		114.0	111.5	139.5	101.0	135.5	2631.0
	33		119.5	122.5	137.5	106.5	143.0	.
	34		121.5	113.0	153.5	104.0	156.0	2650.0
	35		105.0	112.5	134.0	96.0	131.5	2522.0

d = one animal died, cage-mate moved to another cage
. = water bottle has been dripping

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Females

GROUP	CAGE NO	DAY 4	DAY 7	DAY 10	DAY 14	DAY 17	DAY 21	DAY 24
1	6	69.0	65.0	56.5	83.0	68.5	84.0	66.0
	7	80.5	58.5	66.5	83.0	63.5	98.5	68.5
	8	70.5	67.5	68.0	91.0	68.0	103.0	71.5
	9	44.0	53.5	44.0	66.0	43.0	71.0	52.0
	10	70.0	60.0	62.5	75.0	60.5	93.0	61.5
2	16	71.0	63.5	68.5	87.0	60.0	86.0	69.5
	17	54.0	54.5	50.0	65.0	44.0	74.5	50.5
	18	63.5	57.5	55.0	75.5	161.0	75.5	65.0
	19	69.5	63.0	62.5	83.5	52.5	92.0	77.5
	20	62.5	59.0	58.0	75.5	60.5	87.0	61.5
3	26	58.0	50.5	53.5	69.5	57.0	80.5	51.5
	27	69.5	71.0	56.5	72.5	53.5	80.5	61.5
	28	73.5	76.5	70.0	86.0	76.5	108.0	74.5
	29	56.5	56.0	50.5	71.5	49.5	80.5	66.0
	30	85.0	72.0	96.0	92.5	65.0	101.0	68.5
4	36	58.5	55.5	60.5	67.0	56.5	78.5	59.5
	37	73.5	73.0	76.5	93.5	68.5	112.5	79.5
	38	56.0	73.0	63.5	72.0	62.5	93.5	64.5
	39	61.5	65.5	65.0	90.5	64.5	102.0	75.5
	40	67.0	61.0	59.5	78.0	55.5	89.5	62.5

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Females

GROUP	CAGE NO		DAY 28	DAY 31	DAY 35	DAY 38	DAY 42	DAY 45	DAY 49
1	6		86.0	70.5	106.0	77.0	103.5	77.0	93.0
	7		94.0	79.0	116.5	70.5	94.0	71.0	67.0
	8		109.5	82.0	118.5	87.0	124.0	52.0	107.5
	9		62.0	56.5	99.5	59.0	76.5	69.5	79.5
	10		82.5	62.5	97.5	67.0	82.5	70.5	87.5
2	16		85.5	72.5	108.5	72.5	113.0	71.5	88.0
	17		67.5	68.5	97.5	67.0	88.5	65.0	73.5
	18		91.5	58.5	105.5	90.0	101.5	73.0	95.0
	19		91.5	87.5	132.5	85.0	115.5	89.0	109.5
	20		80.0	67.0	105.0	74.0	90.5	86.5	104.0
3	26	d	63.5	58.5	76.0	55.0	64.0	70.0	47.5
	27		82.5	68.0	81.0	65.5	89.5	64.0	90.5
	28		105.0	65.5	110.0	94.5	97.5	87.0	103.5
	29		79.5	50.5	206.0	78.5	91.0	74.5	92.0
	30		101.5	66.0	105.5	93.0	111.5	102.0	117.5
4	36		74.0	75.0	100.5	72.0	102.5	83.0	99.0
	37		107.0	77.5	118.0	85.0	128.5	104.5	99.5
	38		92.0	72.5	93.0	96.0	113.5	94.0	100.5
	39		98.0	66.5	112.5	86.0	121.5	91.0	39.0
	40		73.5	64.5	79.5	82.0	103.5	70.5	85.0

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Females

GROUP	CAGE NO		DAY 52	DAY 56	DAY 59	DAY 63	DAY 66	DAY 70	DAY 73
1	6		60.5	101.0	76.0	125.5	84.0	99.5	94.0
	7		66.0	90.0	65.5	107.0	79.5	85.0	81.0
	8		77.0	115.5	82.0	122.0	93.5	124.5	105.0
	9		67.0	92.5	63.5	97.0	71.5	86.0	74.5
	10		68.0	95.5	71.5	101.0	71.5	.	70.0
2	16		76.5	102.5	49.5	131.5	89.0	112.0	94.5
	17		61.0	83.5	65.5	100.0	69.0	91.5	71.0
	18		75.5	101.0	72.0	107.5	86.5	117.5	89.5
	19		89.5	119.5	81.0	125.0	83.5	113.0	78.0
	20		74.5	105.0	74.0	116.5	75.0	104.0	83.0
3	26	d	74.0	105.5	72.0	105.5	68.5	80.5	
	27		66.5	83.5	72.5	107.0	79.0	96.0	75.0
	28		211.5	118.0	76.0	114.5	92.0	121.0	99.5
	29		75.5	116.5	78.5	95.5	75.5	95.5	81.0
	30		91.5	121.5	79.5	116.5	82.5	105.5	95.5
4	36		64.0	96.0	50.5	124.5	.	100.0	90.0
	37		73.0	100.5	88.0	122.5	95.5	138.0	121.0
	38		73.5	109.5	86.5	97.0	82.0	112.5	85.0
	39		82.5	104.5	70.0	125.0	86.0	123.5	101.5
	40		63.5	86.5	59.0	105.0	78.5	99.5	87.5

d = one animal died, cage-mate moved to another cage
. = water bottle has been dripping

SP 387/TL1

A 3-Month Toxicity Study in Rats

Water consumption (g)

Values per animal - Day 4 - Day 91

Females

GROUP	CAGE NO		DAY 77	DAY 80	DAY 84	DAY 87	DAY 91	TOTAL DAY 4 TO DAY 91
1	6		88.5	92.5	93.5	83.0	112.0	2215.0
	7		82.0	91.5	104.5	82.0	115.0	2160.0
	8		104.5	127.0	132.0	116.5	142.5	2562.0
	9		86.0	85.0	95.5	72.0	105.5	1872.0
	10		91.5	104.0	93.0	75.5	96.5	.
2	16		103.5	95.5	102.5	87.5	113.5	2275.0
	17		80.5	91.5	92.0	73.0	97.0	1895.5
	18		97.5	95.0	94.0	74.0	108.5	2286.5
	19		99.5	111.0	118.0	95.0	122.5	2446.5
	20		94.5	93.0	95.5	87.0	136.5	2209.5
3	26	d						
	27		81.3	87.7	101.3	.	108.7	.
	28		104.0	106.0	25.5	117.5	136.0	2549.5
	29		85.5	95.5	88.0	74.0	99.0	2162.5
	30		101.0	107.5	119.5	92.0	126.0	2515.5
4	36		85.0	96.5	102.5	81.5	108.5	.
	37		126.5	135.0	136.0	97.0	149.5	2679.5
	38		103.5	101.0	105.5	89.0	121.0	2312.5
	39		103.5	113.0	121.0	91.0	133.0	2393.5
	40		79.5	79.5	90.0	77.5	97.5	2035.0

d = one animal died, cage-mate moved to another cage
. = water bottle has been dripping

Table 15 Ophthalmoscopy – Individual findings

SP 387/TL1

A 3-Month Toxicity Study in Rats

Ophthalmoscopy

Group 1

Animal No/Sex	Before start of treatment	Before termination of treatment
1, male	No abnormal findings.	No abnormal findings.
2, male	No abnormal findings.	No abnormal findings.
3, male	No abnormal findings.	No abnormal findings.
4, male	No abnormal findings.	No abnormal findings.
5, male	Right eye: No abnormal findings. Left eye: Slight central lenticular opacities.	No abnormal findings.
6, male	Right eye: No abnormal findings. Left eye: Edge of iris blurred (inner circle).	No abnormal findings.
7, male	No abnormal findings.	No abnormal findings.
8, male	No abnormal findings.	No abnormal findings.
9, male	No abnormal findings.	No abnormal findings.
10, male	Both eyes: Slight central lenticular opacities.	No abnormal findings.
11, female	No abnormal findings.	No abnormal findings.
12, female	No abnormal findings.	No abnormal findings.
13, female	No abnormal findings.	Right eye: Slight central lenticular opacities. Left eye: No abnormal findings.
14, female	No abnormal findings.	No abnormal findings.
15, female	No abnormal findings.	No abnormal findings.
16, female	No abnormal findings.	No abnormal findings.
17, female	No abnormal findings.	No abnormal findings.
18, female	No abnormal findings.	No abnormal findings.
19, female	No abnormal findings.	No abnormal findings.
20, female	No abnormal findings.	No abnormal findings.

SP 387/TL1

A 3-Month Toxicity Study in Rats

Ophthalmoscopy

Group 2

Animal No/Sex	Before start of treatment	Before termination of treatment
21, male	No abnormal findings.	
22, male	Both eyes: Slight central lenticular opacities.	
23, male	No abnormal findings.	
24, male	No abnormal findings.	
25, male	No abnormal findings.	
26, male	No abnormal findings.	
27, male	No abnormal findings.	
28, male	No abnormal findings.	
29, male	Both eyes: Lenticular opacities.	
30, male	No abnormal findings.	
31, female	No abnormal findings.	
32, female	No abnormal findings.	
33, female	No abnormal findings.	
34, female	No abnormal findings.	
35, female	No abnormal findings.	
36, female	No abnormal findings.	
37, female	No abnormal findings.	
38, female	No abnormal findings.	
39, female	No abnormal findings.	
40, female	No abnormal findings.	

SP 387/TL1

A 3-Month Toxicity Study in Rats

Ophthalmoscopy

Group 3

Animal No/Sex	Before start of treatment	Before termination of treatment
41, male	No abnormal findings.	
42, male	No abnormal findings.	
43, male	Both eyes: Slight central lenticular opacities.	
44, male	No abnormal findings.	
45, male	Both eyes: Lenticular opacity with black discoloration raising from the lens.	
46, male	No abnormal findings.	
47, male	No abnormal findings.	
48, male	Both eyes: Slight central lenticular opacities.	
49, male	No abnormal findings.	
50, male	No abnormal findings.	
51, female	No abnormal findings.	
52, female	No abnormal findings.	
53, female	No abnormal findings.	
54, female	No abnormal findings.	
55, female	No abnormal findings.	
56, female	No abnormal findings.	
57, female	No abnormal findings.	
58, female	No abnormal findings.	
59, female	No abnormal findings.	
60, female	No abnormal findings.	

SP 387/TL1

A 3-Month Toxicity Study in Rats

Ophthalmoscopy

Group 4

Animal No/Sex	Before start of treatment	Before termination of treatment
61, male	No abnormal findings.	No abnormal findings.
62, male	No abnormal findings.	No abnormal findings.
63, male	Both eyes: Slight central lenticular opacities.	No abnormal findings.
64, male	No abnormal findings.	No abnormal findings.
65, male	Right eye: No abnormal findings. Left eye: Slight central lenticular opacities.	No abnormal findings.
66, male	No abnormal findings.	No abnormal findings.
67, male	No abnormal findings.	No abnormal findings.
68, male	No abnormal findings.	No abnormal findings.
69, male	No abnormal findings.	No abnormal findings.
70, male	No abnormal findings.	No abnormal findings.
71, female	No abnormal findings.	No abnormal findings.
72, female	No abnormal findings.	No abnormal findings.
73, female	No abnormal findings.	No abnormal findings.
74, female	No abnormal findings.	No abnormal findings.
75, female	No abnormal findings.	No abnormal findings.
76, female	No abnormal findings.	No abnormal findings.
77, female	No abnormal findings.	No abnormal findings.
78, female	Right eye: No abnormal findings. Left eye: Slight central lenticular opacities.	No abnormal findings.
79, female	No abnormal findings.	No abnormal findings.
80, female	No abnormal findings.	No abnormal findings.

Table 16 Haematology – Individual values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	Hb	RBC	HT	MCV	MCH	MCHC	WBC
1	1	9.5	9.04	46	51	1.1	20.8	.
	2	9.6	8.60	44	51	1.1	21.8	.
	3	9.6	8.70	44	51	1.1	21.5	9.4
	4	9.9	8.78	47	53	1.1	21.4	16.8
	5	9.1	8.30	44	53	1.1	20.9	18.2
	6	10.1	9.41	46	49	1.1	22.0	12.4
	7	10.0	9.11	47	51	1.1	21.4	18.8
	8	9.6	8.81	45	51	1.1	21.3	16.1
	9	10.3	9.77	49	50	1.1	20.9	18.8
	10	10.0	8.92	45	50	1.1	22.4	16.4
2	21	10.2	9.04	48	53	1.1	21.3	16.7
	22	10.4	9.31	48	52	1.1	21.5	18.0
	23	9.9	8.78	45	51	1.1	22.1	13.9
	24	10.2	9.07	48	52	1.1	21.5	10.9
	25	9.6	8.79	44	50	1.1	21.9	15.7
	26	10.7	10.01	50	50	1.1	21.6	17.0
	27	10.5	10.09	51	50	1.0	20.8	17.4
	28	10.6	9.75	48	50	1.1	21.8	15.7
	29	10.0	9.08	47	51	1.1	21.4	15.8
	30	10.0	9.52	46	48	1.1	21.6	18.8

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		Hb	RBC	HT	MCV	MCH	MCHC	WBC
3	41		9.6	8.67	46	52	1.1	21.1	11.6
	42		9.9	9.18	47	51	1.1	21.2	16.2
	43		9.6	8.45	46	54	1.1	21.0	18.6
	44		9.8	8.96	46	52	1.1	21.2	15.2
	45		9.8	8.90	46	52	1.1	21.2	17.9
	46		10.6	9.29	48	51	1.1	22.2	17.2
	47		10.4	9.21	49	53	1.1	21.2	18.6
	48		9.8	8.94	46	52	1.1	21.3	22.7
	49	d							
	50		9.8	9.08	45	50	1.1	21.7	13.3
4	61		9.5	8.53	44	52	1.1	21.5	16.1
	62		10.2	9.28	49	52	1.1	21.1	17.4
	63		10.3	9.27	47	51	1.1	21.8	15.5
	64		9.0	8.38	42	50	1.1	21.5	14.1
	65		10.1	8.61	48	56	1.2	20.9	17.9
	66		10.3	9.50	48	51	1.1	21.3	17.5
	67		10.0	8.91	46	52	1.1	21.6	14.3
	68		10.3	9.63	48	50	1.1	21.3	16.2
	69		10.0	9.00	46	51	1.1	21.7	14.3
	70		9.6	9.12	46	51	1.1	20.7	13.5

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	% NEUTRO	NEUTRO	% LYMPHO	LYMPHO	% EOS	EOS
1	1	10	.	90	.	0	.
	2	18	.	81	.	1	.
	3	27	2.5	73	6.9	0	0.0
	4	11	1.8	89	15.0	0	0.0
	5	6	1.1	94	17.1	0	0.0
	6	10	1.2	88	10.9	1	0.1
	7	11	2.1	89	16.7	0	0.0
	8	5	0.8	93	15.0	1	0.2
	9	5	0.9	95	17.9	0	0.0
	10	7	1.1	92	15.1	0	0.0
2	21	24	4.0	74	12.4	1	0.2
	22	10	1.8	90	16.2	0	0.0
	23	10	1.4	90	12.5	0	0.0
	24	14	1.5	84	9.2	1	0.1
	25	6	0.9	94	14.8	0	0.0
	26	15	2.6	85	14.5	0	0.0
	27	4	0.7	95	16.5	0	0.0
	28	5	0.8	95	14.9	0	0.0
	29	8	1.3	90	14.2	1	0.2
	30	4	0.8	95	17.9	1	0.2

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		% NEUTRO	NEUTRO	% LYMPHO	LYMPHO	% EOS	EOS
3	41		6	0.7	94	10.9	0	0.0
	42		12	1.9	88	14.3	0	0.0
	43		16	3.0	82	15.3	2	0.4
	44		14	2.1	86	13.1	0	0.0
	45		11	2.0	89	15.9	0	0.0
	46		5	0.9	95	16.3	0	0.0
	47		7	1.3	93	17.3	0	0.0
	48		8	1.8	89	20.2	2	0.5
	49	d						
	50		8	1.1	92	12.2	0	0.0
4	61		3	0.5	95	15.3	1	0.2
	62		13	2.3	86	15.0	0	0.0
	63		7	1.1	92	14.3	0	0.0
	64		8	1.1	92	13.0	0	0.0
	65		5	0.9	95	17.0	0	0.0
	66		8	1.4	89	15.6	3	0.5
	67		11	1.6	89	12.7	0	0.0
	68		4	0.6	95	15.4	1	0.2
	69		6	0.9	92	13.2	2	0.3
	70		4	0.5	95	12.8	1	0.1

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	% BASO	BASO	% MONO	MONO	Plt	APTT	Pt	Fib
1	1	0	.	0	.	587	27.5	15.0	3.28
	2	0	.	0	.	498	42.5	15.3	1.49
	3	0	0	0	0.0	417	48.2	15.9	4.01
	4	0	0	0	0.0	577	45.7	16.2	2.36
	5	0	0	0	0.0	581	60.7	15.4	3.20
	6	0	0	1	0.1	626	19.7	15.2	3.38
	7	0	0	0	0.0	404	13.4	15.4	3.65
	8	0	0	1	0.2	597	18.2	14.9	3.38
	9	0	0	0	0.0	623	10.9	15.8	3.42
	10	0	0	1	0.2	453	18.7	16.1	3.11
2	21	0	0	1	0.2	589	43.7	15.2	3.68
	22	0	0	0	0.0	614	48.7	15.2	3.65
	23	0	0	0	0.0	590	36.5	14.6	3.02
	24	0	0	1	0.1	596	64.4	15.8	3.61
	25	0	0	0	0.0	556	58.5	15.0	3.57
	26	0	0	0	0.0	552	13.7	14.7	3.57
	27	0	0	1	0.2	801	15.9	15.6	4.10
	28	0	0	0	0.0	489	17.5	16.5	3.98
	29	0	0	1	0.2	532	12.7	16.1	3.41
	30	0	0	0	0.0	593	14.2	16.2	3.19

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		% BASO	BASO	% MONO	MONO	Plt	APTT	Pt	Fib
3	41		0	0	0	0.0	679	50.5	15.4	3.24
	42		0	0	0	0.0	623	40.0	15.2	3.20
	43		0	0	0	0.0	484	40.5	14.4	2.66
	44		0	0	0	0.0	720	32.2	16.2	3.17
	45		0	0	0	0.0	554	54.5	14.9	3.11
	46		0	0	0	0.0	480	17.5	15.9	3.43
	47		0	0	0	0.0	593	23.2	15.6	3.62
	48		0	0	1	0.2	754	11.9	15.3	3.69
	49	d								
	50		0	0	0	0.0	642	21.0	15.3	3.29
4	61		0	0	1	0.2	544	45.7	15.3	3.18
	62		0	0	1	0.2	531	52.7	15.4	3.29
	63		0	0	1	0.2	618	64.4	14.6	3.25
	64		0	0	0	0.0	743	47.7	13.8	2.83
	65		0	0	0	0.0	623	47.2	15.0	3.09
	66		0	0	0	0.0	554	14.9	14.9	3.40
	67		0	0	0	0.0	491	13.2	15.6	3.57
	68		0	0	0	0.0	490	14.2	15.3	3.88
	69		0	0	0	0.0	610	10.4	15.6	3.58
	70		0	0	0	0.0	575	13.2	15.8	3.04

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	Hb	RBC	HT	MCV	MCH	MCHC	WBC
1	11	10.1	8.70	47	54	1.2	21.6	16.0
	12	9.9	8.69	45	52	1.1	22.0	9.3
	13	9.6	8.34	45	54	1.2	21.5	13.3
	14	9.4	8.28	43	52	1.1	21.6	12.0
	15	9.4	8.32	43	51	1.1	21.9	17.2
	16	9.4	8.24	44	53	1.1	21.7	.
	17	9.9	8.80	47	53	1.1	21.1	14.6
	18	9.8	8.64	45	52	1.1	22.0	14.3
	19	9.4	8.59	43	51	1.1	21.6	.
	20	9.6	8.46	44	52	1.1	21.7	11.2
2	31	10.2	8.71	46	53	1.2	22.2	16.9
	32	9.8	8.30	44	54	1.2	22.0	15.5
	33	9.3	7.79	42	54	1.2	22.4	15.6
	34	9.6	8.44	44	52	1.1	21.9	14.7
	35	9.8	8.68	45	51	1.1	21.9	16.2
	36	9.4	8.09	42	52	1.2	22.2	12.8
	37	9.7	8.54	45	52	1.1	21.8	12.7
	38	10.0	8.53	46	54	1.2	21.8	11.0
	39	9.8	8.68	46	53	1.1	21.4	16.3
	40	9.5	8.03	43	54	1.2	22.0	15.1

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	Hb	RBC	HT	MCV	MCH	MCHC	WBC
3	51	d						
	52	9.9	9.48	45	48	1.1	21.9	8.8
	53	9.6	8.51	43	51	1.1	22.2	15.9
	54	10.1	8.78	45	51	1.2	22.5	12.9
	55	9.4	8.66	43	50	1.1	21.8	10.1
	56	9.0	8.04	43	53	1.1	21.1	13.6
	57	9.7	8.37	45	54	1.2	21.3	13.8
	58	10.1	8.77	46	52	1.2	22.1	11.2
	59	9.4	8.51	43	50	1.1	21.9	13.2
	60	10.3	8.98	47	52	1.1	22.0	12.4
4	71	9.9	8.03	44	55	1.2	22.6	.
	72	9.5	8.07	43	54	1.2	21.9	12.5
	73	9.2	7.94	42	53	1.2	22.0	.
	74	9.4	8.38	42	50	1.1	22.4	12.7
	75	9.1	7.86	42	53	1.2	22.0	10.7
	76	9.8	8.83	46	51	1.1	21.5	14.1
	77	9.5	8.61	43	50	1.1	22.1	13.7
	78	9.7	8.55	46	54	1.1	21.1	11.8
	79	10.0	8.96	45	51	1.1	22.0	19.2
	80	10.4	8.88	48	54	1.2	21.7	12.9

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment
. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	% NEUTRO	NEUTRO	% LYMPHO	LYMPHO	% EOS	EOS
1	11	5	0.8	95	15.2	0	0.0
	12	11	1.0	87	8.1	2	0.2
	13	7	0.9	93	12.4	0	0.0
	14	4	0.5	95	11.4	1	0.1
	15	7	1.2	93	16.0	0	0.0
	16	4	.	95	.	1	.
	17	19	2.8	80	11.7	1	0.1
	18	13	1.9	87	12.4	0	0.0
	19	1	.	95	.	3	.
	20	6	0.7	94	10.5	0	0.0
2	31	6	1.0	93	15.7	1	0.2
	32	8	1.2	92	14.3	0	0.0
	33	9	1.4	90	14.0	1	0.2
	34	5	0.7	95	14.0	0	0.0
	35	9	1.5	90	14.6	0	0.0
	36	5	0.6	95	12.2	0	0.0
	37	13	1.7	85	10.8	2	0.3
	38	13	1.4	86	9.5	0	0.0
	39	5	0.8	94	15.3	1	0.2
	40	6	0.9	94	14.2	0	0.0

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO		% NEUTRO	NEUTRO	% LYMPHO	LYMPHO	% EOS	EOS
3	51	d						
	52		5	0.4	92	8.1	3	0.3
	53		7	1.1	93	14.8	0	0.0
	54		3	0.4	92	11.9	5	0.6
	55		5	0.5	92	9.3	3	0.3
	56		6	0.8	93	12.6	1	0.1
	57		4	0.6	95	13.1	1	0.1
	58		6	0.7	93	10.4	1	0.1
	59		5	0.7	92	12.1	2	0.3
	60		8	1.0	91	11.3	1	0.1
4	71		4	.	96	.	0	.
	72		6	0.8	94	11.8	0	0.0
	73		3	.	96	.	1	.
	74		10	1.3	90	11.4	0	0.0
	75		7	0.7	90	9.6	3	0.3
	76		26	3.7	72	10.2	2	0.3
	77		11	1.5	88	12.1	1	0.1
	78		9	1.1	88	10.4	3	0.4
	79		4	0.8	95	18.2	1	0.2
	80		5	0.6	94	12.1	1	0.1

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment
. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	% BASO	BASO	% MONO	MONO	Plt	APTT	Pt	Fib
1	11	0	0	0	0.0	643	27.0	15.3	2.40
	12	0	0	0	0.0	996	42.0	15.9	2.69
	13	0	0	0	0.0	608	37.7	14.9	2.25
	14	0	0	0	0.0	609	37.2	15.8	2.79
	15	0	0	0	0.0	524	43.0	15.9	2.57
	16	0	.	0	.	566	10.4	15.9	2.64
	17	0	0	0	0.0	627	11.4	15.6	2.44
	18	0	0	0	0.0	712	15.4	17.6	3.11
	19	0	.	1	.	620	13.2	17.0	2.55
	20	0	0	0	0.0	585	13.2	17.0	2.73
2	31	0	0	0	0.0	493	39.7	15.9	2.53
	32	0	0	0	0.0	402	39.0	15.8	2.50
	33	0	0	0	0.0	631	33.7	16.2	2.42
	34	0	0	0	0.0	622	52.5	15.9	2.97
	35	0	0	1	0.2	501	44.7	16.6	3.09
	36	0	0	0	0.0	649	13.4	17.6	2.54
	37	0	0	0	0.0	710	12.9	16.1	2.71
	38	0	0	1	0.1	636	15.4	16.1	2.63
	39	0	0	0	0.0	558	10.4	15.9	2.53
	40	0	0	0	0.0	431	15.2	16.6	3.17

Abbreviations and units are explained in subsection 'Clinical pathology'

. = not possible to measure

SP 387/TL1

A 3-Month Toxicity Study in Rats

Haematology

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO		% BASO	BASO	% MONO	MONO	Plt	APTT	Pt	Fib
3	51	d								
	52		0	0	0	0.0	762	31.0	16.8	3.42
	53		0	0	0	0.0	453	46.2	16.1	3.04
	54		0	0	0	0.0	633	46.0	15.8	2.40
	55		0	0	0	0.0	744	34.5	16.4	3.13
	56		0	0	0	0.0	457	11.2	16.4	2.02
	57		0	0	0	0.0	460	11.4	16.1	2.24
	58		0	0	0	0.0	555	13.7	16.8	3.13
	59		0	0	1	0.1	592	13.9	17.6	2.32
	60		0	0	0	0.0	549	11.2	17.4	2.99
4	71		0	.	0	.	610	35.0	15.3	2.29
	72		0	0	0	0.0	567	27.2	15.8	2.53
	73		0	.	0	.	532	27.7	16.5	2.74
	74		0	0	0	0.0	595	36.0	15.9	2.78
	75		0	0	0	0.0	915	41.5	17.1	2.47
	76		0	0	0	0.0	547	c	15.9	2.83
	77		0	0	0	0.0	619	14.2	16.6	2.80
	78		0	0	0	0.0	523	14.2	16.2	2.57
	79		0	0	0	0.0	577	10.4	17.0	3.84
	80		0	0	0	0.0	579	12.9	16.8	2.28

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment
. = not possible to measure
c = blood sample coagulated

Table 17 Clinical chemistry – Individual values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	ALAT	ASAT	ALKPH	BILI	GGT	CHOL	TRIG
1	1	1.15	1.75	2.60	1.3	<LOD	3.0	2.93
	2	0.93	1.34	2.30	1.6	<LOD	2.6	1.27
	3	1.57	1.66	3.59	1.5	<LOD	2.9	1.67
	4	1.33	1.72	2.60	2.3	<LOD	3.6	2.31
	5	1.15	1.96	3.19	1.3	<LOD	2.1	0.84
	6	1.20	1.96	3.00	1.5	<LOD	2.6	0.93
	7	1.46	1.97	2.79	<LOD	<LOD	2.9	2.15
	8	1.20	1.79	3.16	<LOD	<LOD	3.0	2.99
	9	1.39	1.89	3.49	1.3	<LOD	3.6	2.11
	10	1.08	1.43	3.37	1.3	<LOD	2.9	4.75
2	21	0.92	1.55	3.30	1.8	<LOD	3.0	2.05
	22	0.94	1.22	3.04	2.3	<LOD	2.7	1.45
	23	1.02	2.01	2.77	1.8	<LOD	2.6	1.54
	24	1.25	1.63	3.09	1.5	<LOD	2.6	1.48
	25	1.22	1.79	3.83	1.7	<LOD	2.8	1.53
	26	1.07	1.80	2.43	1.3	<LOD	3.0	1.19
	27	1.46	2.37	3.67	1.7	<LOD	2.8	1.28
	28	1.45	1.70	3.48	1.7	<LOD	2.6	2.25
	29	1.00	1.59	3.93	<LOD	0.04	2.6	1.41
	30	1.20	2.21	2.98	1.8	<LOD	2.2	1.41

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI = 1.3
Limit of detection for GGT = 0.04

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		ALAT	ASAT	ALKPH	BILI	GGT	CHOL	TRIG
3	41		0.83	1.35	2.60	1.6	<LOD	3.2	1.79
	42		1.15	1.56	2.88	1.4	<LOD	3.1	1.97
	43		1.01	1.57	2.86	1.9	<LOD	2.4	2.97
	44		1.01	1.76	3.38	1.8	<LOD	2.7	1.39
	45		1.36	2.17	3.56	1.6	<LOD	2.2	1.01
	46		1.26	1.66	3.08	<LOD	<LOD	2.6	2.37
	47		1.04	1.82	3.39	1.4	<LOD	2.5	1.27
	48		1.09	1.53	2.04	1.6	<LOD	2.7	1.16
	49	d							
	50		0.99	1.63	2.97	<LOD	<LOD	2.6	1.44
4	61		1.03	1.54	3.19	1.5	<LOD	2.3	1.56
	62		1.11	1.67	2.94	1.5	<LOD	2.4	0.93
	63		1.14	1.77	3.18	2.0	<LOD	2.6	1.50
	64		1.12	2.12	3.60	<LOD	<LOD	3.2	1.87
	65		1.13	1.88	3.93	2.1	<LOD	2.6	1.78
	66		1.04	1.59	2.27	1.7	<LOD	2.6	1.42
	67		0.90	1.49	2.89	2.2	<LOD	2.6	1.21
	68		0.93	1.51	2.81	1.8	<LOD	2.9	1.81
	69		0.96	1.66	3.85	1.6	<LOD	2.6	1.52
	70		1.09	1.93	3.00	1.5	<LOD	3.8	1.52

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI = 1.3
Limit of detection for GGT = 0.04
d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	UREA	CREAT	GLUC	Na	K	Ca
1	1	10.22	24	10.5	146.3	6.28	2.95
	2	9.20	29	6.8	147.6	6.36	2.92
	3	9.01	26	5.7	147.3	7.31	2.81
	4	8.40	24	5.6	147.9	6.42	2.96
	5	7.23	27	8.3	147.7	6.88	2.74
	6	9.18	24	6.4	148.0	6.56	2.82
	7	9.33	26	6.0	148.0	6.59	2.85
	8	6.71	25	6.5	144.6	6.71	2.85
	9	8.60	29	6.5	146.6	6.85	2.90
	10	8.91	25	6.1	147.3	6.70	2.95
2	21	7.94	26	6.7	147.5	6.42	2.90
	22	8.41	28	5.8	147.1	6.80	2.95
	23	10.88	26	6.2	146.0	6.13	2.94
	24	8.31	26	5.6	149.4	6.66	2.92
	25	9.45	27	6.2	145.9	6.63	2.89
	26	7.25	27	13.0	147.4	5.89	2.98
	27	7.84	26	6.0	145.9	6.89	2.76
	28	8.80	26	6.2	146.3	6.54	2.90
	29	8.55	25	6.0	146.7	6.93	2.77
	30	8.05	25	6.7	144.8	6.84	2.75

Abbreviations and units are explained in subsection 'Clinical pathology'

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		UREA	CREAT	GLUC	Na	K	Ca
3	41		8.64	22	6.1	147.0	6.74	2.81
	42		7.86	21	5.9	148.5	6.91	2.88
	43		8.53	24	5.9	148.1	6.50	2.82
	44		7.39	26	7.0	146.0	6.49	2.80
	45		9.76	32	6.4	148.4	7.24	2.67
	46		8.03	27	6.9	149.5	6.35	2.83
	47		9.45	31	6.5	145.4	6.51	2.72
	48		6.93	27	6.6	148.4	6.20	2.80
	49	d						
	50		6.81	24	6.5	148.5	6.70	2.87
4	61		8.55	28	7.1	145.1	6.12	2.78
	62		8.73	25	7.0	151.0	6.91	2.69
	63		9.61	28	5.6	146.7	7.00	2.80
	64		9.57	23	5.9	147.2	7.07	2.86
	65		10.18	28	6.0	148.0	6.38	2.86
	66		8.98	24	5.7	147.5	6.68	2.85
	67		6.45	26	6.7	149.1	6.18	2.86
	68		7.21	25	7.0	146.2	6.84	2.85
	69		7.28	27	6.8	146.3	6.65	2.68
	70		8.59	23	6.4	147.9	6.93	2.86

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO	Mg	P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
1	1	1.19	2.94	101.0	70.6	45	25.6	1.76
	2	1.18	2.82	100.7	74.0	48	26.0	1.85
	3	1.22	2.95	99.9	71.2	45	26.2	1.72
	4	1.21	2.84	99.4	75.7	48	27.7	1.73
	5	1.01	2.59	101.3	70.1	45	25.1	1.79
	6	1.27	3.05	98.7	76.0	47	29.0	1.62
	7	1.14	2.57	98.0	74.8	47	27.8	1.69
	8	1.15	3.14	100.6	74.7	45	29.7	1.52
	9	1.13	3.03	101.1	76.9	47	29.9	1.57
	10	1.16	2.66	99.0	76.0	47	29.0	1.62
2	21	1.09	2.94	100.1	76.2	47	29.2	1.61
	22	1.17	3.04	98.5	77.8	49	28.8	1.70
	23	1.13	2.69	101.0	74.6	47	27.6	1.70
	24	1.17	3.13	100.5	74.8	47	27.8	1.69
	25	1.17	2.92	98.6	75.1	46	29.1	1.58
	26	1.35	3.16	100.9	70.9	43	27.9	1.54
	27	1.11	2.87	99.7	75.1	46	29.1	1.58
	28	1.11	2.92	100.1	75.2	45	30.2	1.49
	29	1.09	2.93	100.4	71.0	45	26.0	1.73
	30	1.11	3.03	101.4	71.0	46	25.0	1.84

Abbreviations and units are explained in subsection 'Clinical pathology'

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Males

GROUP	ANIMAL NO		Mg	P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
3	41		1.04	3.10	101.3	67.9	43	24.9	1.73
	42		1.01	2.83	99.6	78.1	47	31.1	1.51
	43		1.10	3.01	102.7	70.4	46	24.4	1.89
	44		1.11	2.61	103.3	71.0	46	25.0	1.84
	45		1.17	3.17	100.4	68.1	45	23.1	1.95
	46		1.03	2.53	98.5	69.3	44	25.3	1.74
	47		1.09	2.84	100.1	69.1	43	26.1	1.65
	48		1.11	2.83	99.5	73.5	46	27.5	1.67
	49	d							
	50		1.22	3.12	100.8	75.3	45	30.3	1.49
4	61		1.04	3.12	101.2	67.7	43	24.7	1.74
	62		1.13	3.39	106.7	71.4	44	27.4	1.61
	63		1.22	3.26	102.6	73.1	45	28.1	1.60
	64		1.13	3.21	100.7	72.4	48	24.4	1.97
	65		1.13	3.09	101.4	73.9	47	26.9	1.75
	66		1.21	3.03	99.7	74.5	46	28.5	1.61
	67		1.25	2.97	100.1	71.8	47	24.8	1.90
	68		1.20	2.94	99.2	77.8	47	30.8	1.53
	69		0.97	3.10	101.9	69.6	44	25.6	1.72
	70		1.20	2.69	101.2	70.8	45	25.8	1.74

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	ALAT	ASAT	ALKPH	BILI	GGT	CHOL	TRIG
1	11	0.88	1.35	2.00	1.5	<LOD	2.7	1.79
	12	0.99	1.57	1.85	1.7	<LOD	2.3	0.62
	13	0.89	1.35	2.20	<LOD	<LOD	2.9	1.44
	14	1.01	1.91	2.54	2.1	<LOD	4.0	1.35
	15	1.06	1.53	2.72	2.4	<LOD	2.6	0.98
	16	1.07	1.66	1.62	<LOD	<LOD	3.6	0.61
	17	0.86	1.51	1.93	1.4	<LOD	3.3	0.58
	18	0.75	1.49	2.24	1.5	<LOD	3.3	0.91
	19	0.96	1.16	3.16	1.4	<LOD	2.6	1.87
	20	0.89	1.27	1.68	<LOD	<LOD	3.1	1.11
2	31	1.07	1.93	2.88	1.9	<LOD	3.0	0.88
	32	1.10	1.79	2.12	1.8	<LOD	2.5	0.92
	33	1.04	1.58	1.74	1.8	<LOD	2.3	3.64
	34	1.05	1.69	2.69	1.8	<LOD	2.6	1.14
	35	0.93	1.70	1.34	1.8	<LOD	3.0	0.88
	36	1.02	1.31	2.00	1.7	0.04	4.6	0.90
	37	0.87	1.76	2.22	<LOD	<LOD	3.1	0.77
	38	0.69	1.89	2.16	2.1	<LOD	3.0	0.58
	39	0.94	1.57	1.98	<LOD	<LOD	2.9	1.63
	40	0.80	1.29	1.62	<LOD	<LOD	2.7	1.71

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI = 1.3
Limit of detection for GGT = 0.04

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO		ALAT	ASAT	ALKPH	BILI	GGT	CHOL	TRIG
3	51	d							
	52		1.34	2.79	1.87	1.7	<LOD	2.3	1.99
	53		1.29	2.13	11.86	2.0	<LOD	3.0	1.68
	54		1.22	2.27	2.16	1.7	<LOD	3.2	0.93
	55		1.14	1.76	2.21	1.4	<LOD	2.7	0.84
	56		0.89	1.33	3.57	1.7	<LOD	2.5	0.92
	57		0.81	1.40	2.12	1.4	<LOD	3.0	1.03
	58		0.97	1.54	1.99	<LOD	<LOD	2.8	0.93
	59		1.06	1.33	2.40	<LOD	<LOD	3.0	1.18
	60		0.79	1.72	2.31	2.2	<LOD	3.7	0.85
4	71		0.98	1.67	1.87	1.3	<LOD	3.4	0.93
	72		0.84	1.78	1.49	1.8	<LOD	3.0	0.93
	73		0.72	1.36	1.48	1.4	<LOD	2.9	1.18
	74		0.62	1.92	1.75	1.9	<LOD	2.3	1.00
	75		1.03	1.40	2.31	2.1	<LOD	2.3	1.28
	76		1.07	1.64	1.95	1.3	<LOD	3.5	0.80
	77		0.99	1.50	2.38	1.7	<LOD	3.0	1.36
	78		0.80	1.64	2.01	1.5	<LOD	2.6	0.72
	79		1.05	1.36	2.09	<LOD	<LOD	3.0	2.35
	80		1.01	1.73	2.98	1.4	<LOD	2.7	1.02

Abbreviations and units are explained in subsection 'Clinical pathology'

Limit of detection for BILI = 1.3
Limit of detection for GGT = 0.04
d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	UREA	CREAT	GLUC	Na	K	Ca
1	11	6.69	24	6.3	147.3	6.46	2.93
	12	5.98	23	6.1	147.7	6.79	2.83
	13	8.31	29	6.3	146.5	6.57	2.87
	14	8.66	30	6.4	146.7	6.73	2.77
	15	7.10	28	5.9	145.2	6.59	2.98
	16	8.08	35	7.5	147.0	6.72	2.86
	17	6.73	28	6.5	145.3	6.43	2.76
	18	5.75	30	6.5	147.1	5.63	2.86
	19	7.78	28	7.0	145.8	6.25	2.86
	20	5.95	28	6.3	145.5	6.59	2.81
2	31	8.37	29	6.0	148.3	6.72	2.83
	32	8.22	31	6.0	146.9	6.17	2.88
	33	6.61	25	6.4	145.4	6.04	2.93
	34	6.86	23	6.6	146.2	6.34	2.89
	35	6.60	28	6.4	146.3	6.40	2.85
	36	6.65	27	5.9	145.6	6.13	2.91
	37	8.14	29	6.7	147.0	6.23	2.85
	38	5.84	32	5.6	147.6	6.14	2.84
	39	8.74	31	6.0	145.7	6.55	2.82
	40	6.23	30	7.2	147.6	5.98	2.75

Abbreviations and units are explained in subsection 'Clinical pathology'

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO		UREA	CREAT	GLUC	Na	K	Ca
3	51	d						
	52		7.46	27	5.8	149.5	7.03	2.81
	53		7.32	24	5.7	145.4	6.66	2.90
	54		7.80	26	6.7	146.2	6.48	2.91
	55		8.63	26	6.3	149.0	6.59	2.87
	56		7.75	27	6.4	147.2	5.73	2.88
	57		7.47	28	6.5	148.0	6.52	2.88
	58		8.43	31	6.7	146.6	6.66	2.82
	59		8.50	27	5.7	147.1	6.25	2.78
	60		6.64	30	7.1	145.9	5.68	2.81
4	71		7.73	31	6.5	145.6	6.92	2.85
	72		6.55	24	6.3	147.9	6.72	2.86
	73		6.59	27	6.7	146.6	6.49	2.74
	74		6.62	28	6.4	145.7	6.35	2.72
	75		6.59	30	6.3	145.6	6.67	2.95
	76		7.32	29	6.0	146.7	5.84	2.92
	77		6.45	28	6.6	145.6	6.54	2.82
	78		6.41	29	7.3	146.5	6.24	2.82
	79		9.48	28	5.6	147.2	6.84	2.98
	80		8.78	30	6.9	145.5	6.44	2.74

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	Mg	P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
1	11	1.16	2.69	99.4	75.2	54	21.2	2.55
	12	1.31	2.73	102.5	78.3	51	27.3	1.87
	13	1.29	2.15	101.9	74.9	51	23.9	2.13
	14	1.32	2.49	102.9	77.2	51	26.2	1.95
	15	1.11	2.47	99.0	75.4	50	25.4	1.97
	16	1.19	2.48	97.9	70.3	47	23.3	2.02
	17	1.19	2.37	100.2	75.4	50	25.4	1.97
	18	1.22	2.10	99.5	75.8	49	26.8	1.83
	19	1.05	1.68	100.5	77.6	53	24.6	2.15
	20	1.18	2.31	101.4	70.1	48	22.1	2.17
2	31	1.25	2.72	101.1	72.9	49	23.9	2.05
	32	1.19	2.45	101.1	76.4	51	25.4	2.01
	33	1.12	2.72	99.4	74.1	51	23.1	2.21
	34	1.11	2.52	98.4	74.2	49	25.2	1.94
	35	1.16	2.91	99.5	73.5	49	24.5	2.00
	36	1.16	2.33	97.9	79.1	52	27.1	1.92
	37	1.24	2.67	99.7	73.6	47	26.6	1.77
	38	1.23	2.46	103.1	76.8	51	25.8	1.98
	39	1.16	2.35	101.6	70.1	46	24.1	1.91
	40	1.01	2.09	100.9	64.3	44	20.3	2.17

Abbreviations and units are explained in subsection 'Clinical pathology'

SP 387/TL1

A 3-Month Toxicity Study in Rats

Clinical chemistry

Individual values - Before termination of treatment

Females

GROUP	ANIMAL NO	Mg	P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
3	51	d						
	52	1.17	2.33	102.3	73.9	45	28.9	1.56
	53	1.20	2.72	99.7	76.5	52	24.5	2.12
	54	1.21	2.90	99.8	74.9	50	24.9	2.01
	55	1.12	2.76	100.7	75.0	49	26.0	1.88
	56	1.01	2.17	100.4	68.7	49	19.7	2.49
	57	1.26	2.54	100.6	72.1	52	20.1	2.59
	58	1.23	2.41	101.4	66.2	44	22.2	1.98
	59	1.03	2.09	103.0	68.8	46	22.8	2.02
	60	1.20	2.28	102.1	75.3	50	25.3	1.98
4	71	1.22	2.73	99.7	77.6	51	26.6	1.92
	72	1.19	2.61	101.0	73.7	49	24.7	1.98
	73	1.14	2.76	98.2	68.8	43	25.8	1.67
	74	1.19	2.52	103.0	67.1	46	21.1	2.18
	75	1.17	2.66	100.2	75.3	52	23.3	2.23
	76	1.10	2.49	99.5	77.4	52	25.4	2.05
	77	1.10	2.53	99.1	70.2	46	24.2	1.90
	78	1.15	2.10	99.4	74.7	53	21.7	2.44
	79	1.22	2.37	100.1	73.7	46	27.7	1.66
	80	1.08	1.66	102.8	71.6	49	22.6	2.17

Abbreviations and units are explained in subsection 'Clinical pathology'

d = dead before termination of treatment

Table 18 Organ weight – Individual values

SP 387/TL1

A 3-Month Toxicity Study in Rats

Organ weight (mg)

Individual values

Males

GROUP	ANIMAL NO	ADRENALS	BRAIN	EPIDIDYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
1	1	45	2270	1376	1716	3236	17566	1085	3769	604
	2	60	2267	1344	1607	3094	14597	833	4441	438
	3	50	2288	1124	1454	2531	13372	751	3148	366
	4	54	2337	1466	1569	3219	15994	803	3582	400
	5	48	2363	1281	1440	3045	15224	951	3642	570
	6	54	2351	1458	1652	2957	15017	811	3976	387
	7	48	2371	1570	1650	3180	18134	1136	4157	535
	8	57	2416	1468	1439	3205	18165	950	4018	409
	9	55	2190	1342	2038	3074	17728	1064	3257	622
	10	64	2126	1014	1545	2642	14159	701	2963	449
2	21	56	2282	1402	1711	2977	15673	970	3945	451
	22	47	2260	1291	1331	2583	13419	886	3618	585
	23	64	2244	1377	1602	2561	14117	963	3770	402
	24	58	2285	1444	1523	2892	14834	1128	3589	444
	25	62	2197	1550	1392	2816	15795	842	4212	459
	26	40	2244	1360	1447	2736	13457	772	3258	321
	27	53	2163	1448	1331	2628	12576	665	3623	379
	28	53	2223	1282	1506	3316	17612	1034	3529	384
	29	59	2170	1176	1502	2573	13128	792	3488	379
	30	68	2174	1330	1227	2480	13114	787	3900	313

SP 387/TL1

A 3-Month Toxicity Study in Rats

Organ weight (mg)

Individual values

Males

GROUP	ANIMAL NO		ADRENALS	BRAIN	EPIDIDYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
3	41		56	2298	1644	2033	3212	18790	792	3849	455
	42		42	2205	1251	1441	2911	15806	727	3468	358
	43		64	2188	1396	1556	2977	14418	935	4096	555
	44		52	2329	1317	1519	3125	15318	906	3847	344
	45		64	2311	1478	1374	2757	13701	903	3755	531
	46		42	2229	1419	1405	2657	14420	992	3582	355
	47		61	2192	1319	1361	2664	14606	828	3665	496
	48		58	2303	1264	1464	3164	15783	973	3997	670
	49	#	62	1203	1155	1411	2229	15238	848	2786	886
	50		48	2285	1360	1421	3038	16298	759	4171	342
4	61		54	2133	1346	1319	2482	13537	891	3773	476
	62		55	2188	1166	1408	2826	12859	893	3757	396
	63		84	2190	1319	1649	3109	17509	1052	3716	545
	64		43	2109	1279	1230	2915	15818	730	3553	345
	65		60	2291	1182	1202	2524	13077	923	3454	377
	66		57	2226	1380	1522	3016	17926	992	4024	484
	67		60	2304	1580	1598	3156	14023	852	3897	350
	68		45	2134	1307	1403	3456	17080	907	3731	296
	69		73	2177	1408	1524	2972	15189	916	3958	486
	70		48	2162	1420	1384	2938	15935	933	3404	441

= dead before termination of treatment, result excluded from statistical analysis

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative organ weight (% of body wt)

Individual values

Males

GROUP	ANIMAL NO	BODY WT, g	ADRENALS	BRAIN	EPIDI-DYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
1	1	451	0.0100	0.503	0.305	0.380	0.718	3.89	0.241	0.836	0.134
	2	459	0.0131	0.494	0.293	0.350	0.674	3.18	0.181	0.968	0.095
	3	385	0.0130	0.594	0.292	0.378	0.657	3.47	0.195	0.818	0.095
	4	443	0.0122	0.528	0.331	0.354	0.727	3.61	0.181	0.809	0.090
	5	447	0.0107	0.529	0.287	0.322	0.681	3.41	0.213	0.815	0.128
	6	438	0.0123	0.537	0.333	0.377	0.675	3.43	0.185	0.908	0.088
	7	504	0.0095	0.470	0.312	0.327	0.631	3.60	0.225	0.825	0.106
	8	488	0.0117	0.495	0.301	0.295	0.657	3.72	0.195	0.823	0.084
	9	494	0.0111	0.443	0.272	0.413	0.622	3.59	0.215	0.659	0.126
	10	398	0.0161	0.534	0.255	0.388	0.664	3.56	0.176	0.744	0.113
2	21	466	0.0120	0.490	0.301	0.367	0.639	3.36	0.208	0.847	0.097
	22	430	0.0109	0.526	0.300	0.310	0.601	3.12	0.206	0.841	0.136
	23	397	0.0161	0.565	0.347	0.404	0.645	3.56	0.243	0.950	0.101
	24	405	0.0143	0.564	0.357	0.376	0.714	3.66	0.279	0.886	0.110
	25	450	0.0138	0.488	0.344	0.309	0.626	3.51	0.187	0.936	0.102
	26	393	0.0102	0.571	0.346	0.368	0.696	3.42	0.196	0.829	0.082
	27	391	0.0136	0.553	0.370	0.340	0.672	3.22	0.170	0.927	0.097
	28	439	0.0121	0.506	0.292	0.343	0.755	4.01	0.236	0.804	0.087
	29	392	0.0151	0.554	0.300	0.383	0.656	3.35	0.202	0.890	0.097
	30	374	0.0182	0.581	0.356	0.328	0.663	3.51	0.210	1.043	0.084

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative organ weight (% of body wt)

Individual values

Males

GROUP	ANIMAL NO	BODY WT, g	ADRENALS	BRAIN	EPIDI-DYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
3	41	443	0.0126	0.519	0.371	0.459	0.725	4.24	0.179	0.869	0.103
	42	445	0.0094	0.496	0.281	0.324	0.654	3.55	0.163	0.779	0.080
	43	436	0.0147	0.502	0.320	0.357	0.683	3.31	0.214	0.939	0.127
	44	426	0.0122	0.547	0.309	0.357	0.734	3.60	0.213	0.903	0.081
	45	435	0.0147	0.531	0.340	0.316	0.634	3.15	0.208	0.863	0.122
	46	400	0.0105	0.557	0.355	0.351	0.664	3.61	0.248	0.896	0.089
	47	422	0.0145	0.519	0.313	0.323	0.631	3.46	0.196	0.868	0.118
	48	463	0.0125	0.497	0.273	0.316	0.683	3.41	0.210	0.863	0.145
	49	# 317	0.0196	0.379	0.364	0.445	0.703	4.81	0.268	0.879	0.279
	50	456	0.0105	0.501	0.298	0.312	0.666	3.57	0.166	0.915	0.075
4	61	431	0.0125	0.495	0.312	0.306	0.576	3.14	0.207	0.875	0.110
	62	394	0.0140	0.555	0.296	0.357	0.717	3.26	0.227	0.954	0.101
	63	506	0.0166	0.433	0.261	0.326	0.614	3.46	0.208	0.734	0.108
	64	378	0.0114	0.558	0.338	0.325	0.771	4.18	0.193	0.940	0.091
	65	404	0.0149	0.567	0.293	0.298	0.625	3.24	0.228	0.855	0.093
	66	484	0.0118	0.460	0.285	0.314	0.623	3.70	0.205	0.831	0.100
	67	403	0.0149	0.572	0.392	0.397	0.783	3.48	0.211	0.967	0.087
	68	433	0.0104	0.493	0.302	0.324	0.798	3.94	0.209	0.862	0.068
	69	447	0.0163	0.487	0.315	0.341	0.665	3.40	0.205	0.885	0.109
	70	389	0.0123	0.556	0.365	0.356	0.755	4.10	0.240	0.875	0.113

= dead before termination of treatment, result excluded from statistical analysis

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values

Males

GROUP	ANIMAL NO	ADRENALS	EPIDI-DYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
1	1	1.98	60.6	75.6	142.6	773.8	47.8	166.0	26.6
	2	2.65	59.3	70.9	136.5	643.9	36.7	195.9	19.3
	3	2.19	49.1	63.5	110.6	584.4	32.8	137.6	16.0
	4	2.31	62.7	67.1	137.7	684.4	34.4	153.3	17.1
	5	2.03	54.2	60.9	128.9	644.3	40.2	154.1	24.1
	6	2.30	62.0	70.3	125.8	638.7	34.5	169.1	16.5
	7	2.02	66.2	69.6	134.1	764.8	47.9	175.3	22.6
	8	2.36	60.8	59.6	132.7	751.9	39.3	166.3	16.9
	9	2.51	61.3	93.1	140.4	809.5	48.6	148.7	28.4
	10	3.01	47.7	72.7	124.3	666.0	33.0	139.4	21.1
2	21	2.45	61.4	75.0	130.5	686.8	42.5	172.9	19.8
	22	2.08	57.1	58.9	114.3	593.8	39.2	160.1	25.9
	23	2.85	61.4	71.4	114.1	629.1	42.9	168.0	17.9
	24	2.54	63.2	66.7	126.6	649.2	49.4	157.1	19.4
	25	2.82	70.6	63.4	128.2	718.9	38.3	191.7	20.9
	26	1.78	60.6	64.5	121.9	599.7	34.4	145.2	14.3
	27	2.45	66.9	61.5	121.5	581.4	30.7	167.5	17.5
	28	2.38	57.7	67.7	149.2	792.3	46.5	158.7	17.3
	29	2.72	54.2	69.2	118.6	605.0	36.5	160.7	17.5
	30	3.13	61.2	56.4	114.1	603.2	36.2	179.4	14.4

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values

Males

GROUP	ANIMAL NO		ADRENALS	EPIDI-DYMIDES	HEART	KIDNEYS	LIVER	SPLEEN	TESTES	THYMUS
3	41		2.44	71.5	88.5	139.8	817.7	34.5	167.5	19.8
	42		1.90	56.7	65.4	132.0	716.8	33.0	157.3	16.2
	43		2.93	63.8	71.1	136.1	659.0	42.7	187.2	25.4
	44		2.23	56.5	65.2	134.2	657.7	38.9	165.2	14.8
	45		2.77	64.0	59.5	119.3	592.9	39.1	162.5	23.0
	46		1.88	63.7	63.0	119.2	646.9	44.5	160.7	15.9
	47		2.78	60.2	62.1	121.5	666.3	37.8	167.2	22.6
	48		2.52	54.9	63.6	137.4	685.3	42.2	173.6	29.1
	49	#	5.15	96.0	117.3	185.3	1266.7	70.5	231.6	73.6
	50		2.10	59.5	62.2	133.0	713.3	33.2	182.5	15.0
4	61		2.53	63.1	61.8	116.4	634.6	41.8	176.9	22.3
	62		2.51	53.3	64.4	129.2	587.7	40.8	171.7	18.1
	63		3.84	60.2	75.3	142.0	799.5	48.0	169.7	24.9
	64		2.04	60.6	58.3	138.2	750.0	34.6	168.5	16.4
	65		2.62	51.6	52.5	110.2	570.8	40.3	150.8	16.5
	66		2.56	62.0	68.4	135.5	805.3	44.6	180.8	21.7
	67		2.60	68.6	69.4	137.0	608.6	37.0	169.1	15.2
	68		2.11	61.2	65.7	161.9	800.4	42.5	174.8	13.9
	69		3.35	64.7	70.0	136.5	697.7	42.1	181.8	22.3
	70		2.22	65.7	64.0	135.9	737.0	43.2	157.4	20.4

= dead before termination of treatment, result excluded from statistical analysis

SP 387/TL1

A 3-Month Toxicity Study in Rats

Organ weight (mg)

Individual values

Females

GROUP	ANIMAL NO	ADRENALS	BRAIN	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1	11	75	2066	1026	1759	8325	107	620	270	597
	12	94	2115	1122	2165	9344	126	813	418	724
	13	74	2122	1005	1717	8983	89	580	233	579
	14	73	2131	1215	2054	9487	124	837	299	1420
	15	80	2143	1050	1984	9550	106	843	416	1080
	16	72	2087	1012	1721	8320	102	591	250	562
	17	64	2144	1169	1980	8984	101	540	342	705
	18	79	1995	1199	2028	9343	109	658	250	713
	19	84	2040	970	2012	10041	97	626	321	1071
	20	62	2138	932	1935	7587	101	551	313	905
2	31	82	2170	1049	1951	8882	116	644	292	664
	32	72	2188	1030	1824	9613	98	715	260	625
	33	49	2127	957	1927	8558	86	608	280	613
	34	70	2116	1036	1915	9056	78	513	292	998
	35	63	2071	935	1899	8375	120	525	329	639
	36	77	2063	949	1800	10072	100	646	288	1255
	37	73	2196	1055	1927	9058	89	576	254	492
	38	85	2063	983	1740	7837	86	612	327	1156
	39	66	2157	1154	1701	10310	90	656	320	468
	40	76	2130	1162	2046	8622	107	663	338	1518

SP 387/TL1

A 3-Month Toxicity Study in Rats

Organ weight (mg)

Individual values

Females

GROUP	ANIMAL NO		ADRENALS	BRAIN	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
3	51	#	59	2262	1017	1871	9884	84	439	405	730
	52		79	2120	1100	1992	9615	123	707	264	614
	53		80	2111	1170	2097	9449	86	753	419	733
	54		63	2131	1210	1866	9016	105	707	399	480
	55		75	1995	1178	2243	11115	114	744	359	691
	56		71	1909	1147	1671	7480	62	578	374	802
	57		55	2083	1003	1722	8497	92	625	291	803
	58		73	2162	1076	1661	8608	103	781	355	497
	59		78	2020	1138	2050	9115	116	781	384	906
	60		79	2151	1272	1902	8644	102	823	256	677
4	71		49	2099	1205	1910	9577	118	647	373	508
	72		74	2121	1025	1995	9412	119	704	222	596
	73		77	2060	1182	1949	9263	75	750	272	536
	74		97	1950	1074	1688	9106	122	722	200	628
	75		77	2025	1038	2119	9242	90	688	296	1128
	76		71	2106	1049	1794	9484	78	702	258	602
	77		80	2103	1081	2006	9609	100	538	336	565
	78		65	2160	947	1748	8382	108	601	292	692
	79		85	2051	1134	1848	9749	112	833	349	553
	80		67	2191	999	2009	8817	101	886	397	1287

= dead before termination of treatment, result excluded from statistical analysis

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative organ weight (% of body wt)

Individual values

Females

GROUP	ANIMAL NO	BODY WT, g	ADRENALS	BRAIN	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1	11	249	0.0301	0.830	0.412	0.706	3.34	0.0430	0.249	0.108	0.240
	12	295	0.0319	0.717	0.380	0.734	3.17	0.0427	0.276	0.142	0.245
	13	253	0.0292	0.839	0.397	0.679	3.55	0.0352	0.229	0.092	0.229
	14	286	0.0255	0.745	0.425	0.718	3.32	0.0434	0.293	0.105	0.497
	15	306	0.0261	0.700	0.343	0.648	3.12	0.0346	0.275	0.136	0.353
	16	272	0.0265	0.767	0.372	0.633	3.06	0.0375	0.217	0.092	0.207
	17	246	0.0260	0.872	0.475	0.805	3.65	0.0411	0.220	0.139	0.287
	18	270	0.0293	0.739	0.444	0.751	3.46	0.0404	0.244	0.093	0.264
	19	264	0.0318	0.773	0.367	0.762	3.80	0.0367	0.237	0.122	0.406
	20	261	0.0238	0.819	0.357	0.741	2.91	0.0387	0.211	0.120	0.347
2	31	281	0.0292	0.772	0.373	0.694	3.16	0.0413	0.229	0.104	0.236
	32	262	0.0275	0.835	0.393	0.696	3.67	0.0374	0.273	0.099	0.239
	33	251	0.0195	0.847	0.381	0.768	3.41	0.0343	0.242	0.112	0.244
	34	264	0.0265	0.802	0.392	0.725	3.43	0.0295	0.194	0.111	0.378
	35	269	0.0234	0.770	0.348	0.706	3.11	0.0446	0.195	0.122	0.238
	36	260	0.0296	0.793	0.365	0.692	3.87	0.0385	0.248	0.111	0.483
	37	254	0.0287	0.865	0.415	0.759	3.57	0.0350	0.227	0.100	0.194
	38	250	0.0340	0.825	0.393	0.696	3.13	0.0344	0.245	0.131	0.462
	39	274	0.0241	0.787	0.421	0.621	3.76	0.0328	0.239	0.117	0.171
	40	269	0.0283	0.792	0.432	0.761	3.21	0.0398	0.246	0.126	0.564

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative organ weight (% of body wt)

Individual values

Females

GROUP	ANIMAL NO		BODY WT, g	ADRENALS	BRAIN	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
3	51	#	249	0.0237	0.908	0.408	0.751	3.97	0.0337	0.176	0.163	0.293
	52		279	0.0283	0.760	0.394	0.714	3.45	0.0441	0.253	0.095	0.220
	53		286	0.0280	0.738	0.409	0.733	3.30	0.0301	0.263	0.147	0.256
	54		287	0.0220	0.743	0.422	0.650	3.14	0.0366	0.246	0.139	0.167
	55		305	0.0246	0.654	0.386	0.735	3.64	0.0374	0.244	0.118	0.227
	56		235	0.0302	0.812	0.488	0.711	3.18	0.0264	0.246	0.159	0.341
	57		254	0.0217	0.820	0.395	0.678	3.35	0.0362	0.246	0.115	0.316
	58		275	0.0265	0.786	0.391	0.604	3.13	0.0375	0.284	0.129	0.181
	59		282	0.0277	0.716	0.404	0.727	3.23	0.0411	0.277	0.136	0.321
	60		259	0.0305	0.831	0.491	0.734	3.34	0.0394	0.318	0.099	0.261
4	71		284	0.0173	0.739	0.424	0.673	3.37	0.0415	0.228	0.131	0.179
	72		266	0.0278	0.797	0.385	0.750	3.54	0.0447	0.265	0.083	0.224
	73		259	0.0297	0.795	0.456	0.753	3.58	0.0290	0.290	0.105	0.207
	74		266	0.0365	0.733	0.404	0.635	3.42	0.0459	0.271	0.075	0.236
	75		288	0.0267	0.703	0.360	0.736	3.21	0.0313	0.239	0.103	0.392
	76		268	0.0265	0.786	0.391	0.669	3.54	0.0291	0.262	0.096	0.225
	77		273	0.0293	0.770	0.396	0.735	3.52	0.0366	0.197	0.123	0.207
	78		255	0.0255	0.847	0.371	0.685	3.29	0.0424	0.236	0.115	0.271
	79		269	0.0316	0.762	0.422	0.687	3.62	0.0416	0.310	0.130	0.206
	80		286	0.0234	0.766	0.349	0.702	3.08	0.0353	0.310	0.139	0.450

= dead before termination of treatment, result excluded from statistical analysis

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values

Females

GROUP	ANIMAL NO	ADRENALS	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1	11	3.63	49.7	85.1	403.0	5.18	30.0	13.1	28.9
	12	4.44	53.0	102.4	441.8	5.96	38.4	19.8	34.2
	13	3.49	47.4	80.9	423.3	4.19	27.3	11.0	27.3
	14	3.43	57.0	96.4	445.2	5.82	39.3	14.0	66.6
	15	3.73	49.0	92.6	445.6	4.95	39.3	19.4	50.4
	16	3.45	48.5	82.5	398.7	4.89	28.3	12.0	26.9
	17	2.99	54.5	92.4	419.0	4.71	25.2	16.0	32.9
	18	3.96	60.1	101.7	468.3	5.46	33.0	12.5	35.7
	19	4.12	47.5	98.6	492.2	4.75	30.7	15.7	52.5
	20	2.90	43.6	90.5	354.9	4.72	25.8	14.6	42.3
2	31	3.78	48.3	89.9	409.3	5.35	29.7	13.5	30.6
	32	3.29	47.1	83.4	439.4	4.48	32.7	11.9	28.6
	33	2.30	45.0	90.6	402.4	4.04	28.6	13.2	28.8
	34	3.31	49.0	90.5	428.0	3.69	24.2	13.8	47.2
	35	3.04	45.1	91.7	404.4	5.79	25.4	15.9	30.9
	36	3.73	46.0	87.3	488.2	4.85	31.3	14.0	60.8
	37	3.32	48.0	87.8	412.5	4.05	26.2	11.6	22.4
	38	4.12	47.6	84.3	379.9	4.17	29.7	15.9	56.0
	39	3.06	53.5	78.9	478.0	4.17	30.4	14.8	21.7
	40	3.57	54.6	96.1	404.8	5.02	31.1	15.9	71.3

SP 387/TL1

A 3-Month Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values

Females

GROUP	ANIMAL NO		ADRENALS	HEART	KIDNEYS	LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
3	51	#	2.61	45.0	82.7	437.0	3.71	19.4	17.9	32.3
	52		3.73	51.9	94.0	453.5	5.80	33.3	12.5	29.0
	53		3.79	55.4	99.3	447.6	4.07	35.7	19.8	34.7
	54		2.96	56.8	87.6	423.1	4.93	33.2	18.7	22.5
	55		3.76	59.0	112.4	557.1	5.71	37.3	18.0	34.6
	56		3.72	60.1	87.5	391.8	3.25	30.3	19.6	42.0
	57		2.64	48.2	82.7	407.9	4.42	30.0	14.0	38.6
	58		3.38	49.8	76.8	398.1	4.76	36.1	16.4	23.0
	59		3.86	56.3	101.5	451.2	5.74	38.7	19.0	44.9
	60		3.67	59.1	88.4	401.9	4.74	38.3	11.9	31.5
4	71		2.33	57.4	91.0	456.3	5.62	30.8	17.8	24.2
	72		3.49	48.3	94.1	443.8	5.61	33.2	10.5	28.1
	73		3.74	57.4	94.6	449.7	3.64	36.4	13.2	26.0
	74		4.97	55.1	86.6	467.0	6.26	37.0	10.3	32.2
	75		3.80	51.3	104.6	456.4	4.44	34.0	14.6	55.7
	76		3.37	49.8	85.2	450.3	3.70	33.3	12.3	28.6
	77		3.80	51.4	95.4	456.9	4.76	25.6	16.0	26.9
	78		3.01	43.8	80.9	388.1	5.00	27.8	13.5	32.0
	79		4.14	55.3	90.1	475.3	5.46	40.6	17.0	27.0
	80		3.06	45.6	91.7	402.4	4.61	40.4	18.1	58.7

= dead before termination of treatment, result excluded from statistical analysis

Appendix I Pathology report
(95 pages, excl. this cover page)

PATHOLOGY REPORT PAGE : I
Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF CONTENTS

```
PATHOLOGY REPORT                                    PAGE       :    1/  94
                                                 Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
EXPLANATION OF CODES AND SYMBOLS
-----------------------------------------------------------------------------


CODES AND SYMBOLS USED AT ANIMAL  LEVEL:
----------------------------------------
M       = Male animal
F       = Female animal
K0      = Terminal sacrifice group
+       = Intercurrent death/sacrificed moribund
+1      = Found dead


CODES AND SYMBOLS USED AT ORGAN  LEVEL:
---------------------------------------
G       = Gross observation checked off histologically
*       = Comment in text of individual animal data
0       = Tissue not present for histologic examination
'       = Histologic examination not required
+       = Organ examined, findings present
-       = Organ examined, no pathologic findings noted (AOFT only)
(       = Only one of paired organs examined/present


CODES AND SYMBOLS USED AT FINDING  LEVEL:
-----------------------------------------
GRADE 1 = Minimal / very few / very small
GRADE 2 = Slight / few / small
GRADE 3 = Moderate / moderate number / moderate size
P       = Finding present, severity not scored
N0      = Malignant neoplasm
(       = Finding unilateral in paired organs
*       = Comment in text of individual animal data
```

PATHOLOGY REPORT PAGE : 2/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
BRAIN CEREBRUM :	10	10	-	-	1	1	10	10
- Gliosis :	1	-	-	-	-	-	-	-
Grade 1:	1	-	-	-	-	-	-	-
BRAIN PONS/MEDULLA :	10	10	-	-	1	1	10	10
- Haemorrhage :	-	1	-	-	-	-	-	-
Grade 1:	-	1	-	-	-	-	-	-
HEART :	10	10	-	-	1	1	10	10
- Inflammation :	1	-	-	-	-	-	1	-
Grade 1:	1	-	-	-	-	-	1	-
- Mononuclear cells :	-	-	-	-	-	-	2	-
Grade 1:	-	-	-	-	-	-	2	-
AORTA :	10	10	-	-	1	1	10	10
- Granulomatous inflam:	-	-	-	-	-	-	-	1
Grade 2:	-	-	-	-	-	-	-	1
LARYNX :	10	10	-	-	1	1	10	10
- Mononuclear cells :	1	2	-	-	-	-	2	-
Grade 1:	1	2	-	-	-	-	2	-
- Dilated glands focal:	-	-	-	-	-	-	2	-
Grade 1:	-	-	-	-	-	-	2	-
TRACHEA :	10	10	-	-	1	1	10	10
- Mononuclear cells :	2	3	-	-	-	-	1	-
Grade 1:	2	3	-	-	-	-	1	-
- Dilated glands focal:	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-

PATHOLOGY REPORT PAGE : 3/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
LUNG :	10	10	-	-	1	1	10	10
- Pleuritis :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
- Osseous metaplas foc:	1	3	-	-	-	-	2	1
Grade 1:	1	3	-	-	-	-	2	1
- Microgranuloma/s :	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
- Mononucl cells focal:	3	1	-	-	-	-	4	1
Grade 1:	3	1	-	-	-	-	4	1
- Granulocytes :	-	2	-	-	-	-	-	-
Grade 1:	-	2	-	-	-	-	-	-
- Congestion :	-	-	-	-	-	1	-	-
- Arterial mineralizat:	2	2	-	-	-	-	5	3
Grade 1:	2	2	-	-	-	-	5	3
- Alveolar macrophages:	-	1	-	-	-	-	-	1
Grade 1:	-	1	-	-	-	-	-	1
- Haemorrhage :	2	1	-	-	-	-	-	-
Grade 1:	1	1	-	-	-	-	-	-
Grade 3:	1	-	-	-	-	-	-	-
TONGUE :	10	10	-	-	-	1	10	10
- Inflamm subacu focal:	1	-	-	-	-	-	-	1
Grade 1:	1	-	-	-	-	-	-	1
- Haemorrhage :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
ESOPHAGUS :	10	10	-	-	1	1	10	10
- Mononucl cells focal:	-	-	-	-	-	-	2	-
Grade 1:	-	-	-	-	-	-	2	-
STOMACH NONGLANDULAR :	10	10	-	-	1	1	10	10
- Hyperkeratosis focal:	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
- Mononuclear cells :	-	1	-	-	-	1	-	1
Grade 1:	-	1	-	-	-	1	-	1

PATHOLOGY REPORT PAGE : 4/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
STOMACH GLANDULAR :	10	10	-	-	1	1	10	10
- Mononuclear cells :	2	1	-	-	-	1	-	4
Grade 1:	2	1	-	-	-	1	-	4
DUODENUM :	10	10	-	-	-	-	10	10
- Mononuclear cells :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
JEJUNUM :	10	10	-	-	-	-	10	10
- Mononuclear cells :	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
RECTUM :	10	10	-	-	-	1	10	10
- Inflammation :	-	1	-	-	-	-	1	1
Grade 1:	-	1	-	-	-	-	1	1
LIVER :	10	10	-	-	1	1	10	10
- EMH/Mononuclear cell:	5	2	-	-	-	-	5	1
Grade 1:	5	2	-	-	-	-	5	1
- Necrosis,single cell:	1	-	-	-	-	-	-	-
Grade 1:	1	-	-	-	-	-	-	-
PANCREAS :	10	10	-	-	1	1	10	10
- Interstitial inflam :	-	1	-	-	-	-	1	-
Grade 1:	-	1	-	-	-	-	1	-
- Atrophy, exocr part :	-	-	-	-	-	-	1	-
Grade 2:	-	-	-	-	-	-	1	-
- Mononuclear cells :	3	4	-	-	-	-	3	2
Grade 1:	3	4	-	-	-	-	3	2

PATHOLOGY REPORT PAGE : 5/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
KIDNEYS :	10	10	-	-	1	1	10	10
- Basoph/Dilat tubules:	7	3	-	-	-	-	9	4
Grade 1:	7	3	-	-	-	-	8	4
Grade 2:	-	-	-	-	-	-	1	-
- Mineralisation, foc :	1	1	-	-	-	-	1	1
Grade 1:	1	1	-	-	-	-	1	1
- Mononucl cells,focal:	1	1	-	-	-	-	-	-
Grade 1:	1	1	-	-	-	-	-	-
- Tubular casts, focal:	1	2	-	-	-	-	5	4
Grade 1:	1	2	-	-	-	-	5	4
- Glomerular degen foc:	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
URINARY BLADDER :	10	9	-	-	1	1	10	10
- Mononuclear cells :	2	1	-	-	-	-	4	-
Grade 1:	2	1	-	-	-	-	4	-
TESTES :	10	-	-	-	1	-	10	-
- Tubular atrophy :	1	-	-	-	-	-	1	-
Grade 1:	1	-	-	-	-	-	1	-
EPIDIDYMIDES :	10	-	-	-	1	-	10	-
- Mononuclear cells :	2	-	-	-	-	-	1	-
Grade 1:	2	-	-	-	-	-	1	-
PROSTATE GLAND :	10	-	-	-	1	-	10	-
- Mononuclear cells :	5	-	-	-	-	-	9	-
Grade 1:	3	-	-	-	-	-	7	-
Grade 2:	2	-	-	-	-	-	2	-
PITUITARY GLAND :	10	10	-	-	-	1	10	10
- Cyst :	-	-	-	-	-	-	-	2
Grade 1:	-	-	-	-	-	-	-	2

PATHOLOGY REPORT PAGE : 6/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
THYROID GLAND :	10	10	-	-	-	1	10	10
- Hyperplas foll epith:	-	1	-	-	-	-	-	-
Grade 1:	-	1	-	-	-	-	-	-
- Mononuclear cells :	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
- Ultimobranchial cyst:	-	1	-	-	-	-	-	1
Grade 1:	-	1	-	-	-	-	-	1
ADRENAL GLANDS :	10	10	-	-	1	1	10	10
- Cortical hypertrophy:	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
- Vacuolation increas :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
THYMUS :	10	10	-	-	1	1	10	10
- Cortical atrophy :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
- Tubular structures :	-	6	-	-	-	-	2	4
Grade 1:	-	6	-	-	-	-	2	4
- Ectopic parathyroid :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
- Haemorrhage :	3	-	-	-	-	-	2	2
Grade 1:	3	-	-	-	-	-	2	2
- Lymphocytolysis :	1	2	-	-	-	-	1	-
Grade 1:	1	2	-	-	-	-	1	-
MESENT. LYMPH NODE :	10	10	-	-	1	1	9	10
- Haemorrhage focal :	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
MANDIBULAR LN RIGHT :	10	10	-	-	1	1	9	10
- Haemorrhage focal :	-	1	-	-	-	-	1	1
Grade 1:	-	1	-	-	-	-	1	1
SALIVARY GLANDS :	-	1	-	-	-	-	-	-
- Adenocarcinoma :	-	1	-	-	-	-	-	-

PATHOLOGY REPORT PAGE : 7/ 94
SUMMARY TABLES Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	10	10	10	10	10	10	10	10
PAROTID GLAND, RIGHT :	10	10	-	-	1	1	10	10
- Basophilia acinar :	-	2	-	-	-	-	-	-
Grade 1:	-	2	-	-	-	-	-	-
SUBLING.GLAND, RIGHT :	10	10	-	-	1	1	10	10
- Hyperplas excr ducts:	-	2	-	-	-	-	-	-
Grade 1:	-	2	-	-	-	-	-	-
- Mononuclear cells :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
SUBMANDIB.GLD. RIGHT :	10	10	-	-	1	1	10	10
- Hemorrhage, focal :	1	-	-	-	-	-	-	-
Grade 1:	1	-	-	-	-	-	-	-
SKIN/SUBCUTIS :	10	10	-	-	1	1	10	10
- Mononuclear cells :	-	1	-	-	-	-	-	-
Grade 1:	-	1	-	-	-	-	-	-
EYES :	10	10	-	-	1	1	10	10
- Retinal rosette :	-	-	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
- Hemorrhage :	-	-	-	-	-	-	-	1
Grade 1:	-	-	-	-	-	-	-	1
STERNUM :	10	10	-	-	1	1	10	10
- Mononuclear cells :	-	1	-	-	-	-	-	3
Grade 1:	-	-	-	-	-	-	-	2
Grade 2:	-	1	-	-	-	-	-	1
- Degen/Regen myofiber:	-	1	-	-	-	-	-	-
Grade 1:	-	1	-	-	-	-	-	-

```
PATHOLOGY REPORT                                    PAGE       :    8/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                         1    2    3    4    5    6    7    8    9   10
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------
BRAIN CEREBRUM           -    -    -    -    -    -    -    -    -    +
- Gliosis                 .    .    .    .    .    .    .    .    .   1.
.......................................................................
BRAIN CEREBELLUM         -    -    -    -    -    -    -    -    -    -
.......................................................................
BRAIN PONS/MEDULLA       -    -    -    -    -    -    -    -    -    -
.......................................................................
SPINAL CORD, CERVIC.     -    -    -    -    -    -    -    -    -    -
.......................................................................
SPINAL CORD, THORAC.     -    -    -    -    -    -    -    -    -    -
.......................................................................
SPINAL CORD, LUMBAR      -    -    -    -    -    -    -    -    -    -
.......................................................................
SCIATIC NERVE,RIGHT      -    -    -    -    -    -    -    -    -    -
.......................................................................
HEART                    -    -    -   +.    -    -    -    -    -    -
- Inflammation            .    .    .   1.    .    .    .    .    .    .
.......................................................................
AORTA                    -    -    -    -    -    -    -    -    -    -
.......................................................................
LARYNX                   -    -    -    -    +    -    -    -    -    -
- Mononuclear cells       .    .    .    .   1.    .    .    .    .    .
.......................................................................
TRACHEA                  -    -    +    -    -    -    +    -    -    -
- Mononuclear cells       .    .   1.    .    .    .   1.    .    .    .
.......................................................................
LUNG                     +    +    +    -    +    -    +    -   +.    -
- Osseous metaplas foc   1.    .    .    .    .    .    .    .    .    .
- Mononucl cells focal   1.    .   1.    .    .    .   1.    .    .    .
- Arterial mineralizat    .    .    .    .   1.    .    .    .   1.    .
- Haemorrhage             .   3.    .    .    .    .   1.    .    .    .
.......................................................................
TONGUE                   -    -    -    -    -    -    +    -    -    -
- Inflamm subacu focal    .    .    .    .    .    .   1.    .    .    .
.......................................................................
ESOPHAGUS                -    -    -    -    -    -    -    -    -    -
.......................................................................
STOMACH NONGLANDULAR     -    -    -    -    -    -    -    -    -    -
.......................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :    9/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                         1    2    3    4    5    6    7    8    9   10
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------
STOMACH GLANDULAR        -    -    -    -    -    -    +    +    -    -
- Mononuclear cells       .    .    .    .    .    .   1.   1.    .    .
.......................................................................
DUODENUM                 -    -    -    -    -    -    -    -    -    -
.......................................................................
JEJUNUM                  -    -    -    -    -    -    -    -    -    -
.......................................................................
ILEUM                    -    -    -    -    -    -    -    -    -    -
.......................................................................
CECUM                    -    -    -    -    -    -    -    -    -    -
.......................................................................
COLON                    -    -    -    -    -    -    -    -    -    -
.......................................................................
RECTUM                   -    -    -    -    -    -    -    -    -    -
.......................................................................
LIVER                    -    +    -    -    +    +    +    +    +    -
- EMH/Mononuclear cell    .   1.    .    .   1.   1.   1.    .   1.    .
- Necrosis,single cell    .    .    .    .    .    .    .   1.    .    .
.......................................................................
PANCREAS                 -    -    -    +    -    +    +    -    -    -
- Mononuclear cells       .    .    .   1.    .   1.   1.    .    .    .
.......................................................................
KIDNEYS                  +    +    -    +    -.   +    +    +    +    -
- Basoph/Dilat tubules   1.   1.    .   1.    . ( 1.   1. ( 1.   1.    .
- Mineralisation, foc     . ( 1.    .    .    .    .    .    .    .    .
- Mononucl cells,focal    .    .    .    .    .    .    . ( 1.    .    .
- Tubular casts, focal    .    .    .    .    .    .    .    . ( 1.    .
.......................................................................
URETERS                ( -    -    -  ( -  ( -    -    -    -    -    -
.......................................................................
URINARY BLADDER          -    -    +.   -    -    +    -    -    -    -
- Mononuclear cells       .    .   1.    .    .   1.    .    .    .    .
.......................................................................
TESTES                   -    -    -    -    -    -    -    -    -    +
- Tubular atrophy         .    .    .    .    .    .    .    .    .   1.
.......................................................................
EPIDIDYMIDES             -    -    -    -    -    -    -    +    +    -
- Mononuclear cells       .    .    .    .    .    .    .   1.   1.    .
.......................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   10/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                          1    2    3    4    5    6    7    8    9   10
                        MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------------
PROSTATE GLAND            -    -    -    +    -    +    +    +    +    -
- Mononuclear cells       .    .    .   1.    .   2.   2.   1.   1.    .
.............................................................................
SEMIN.VESICLE             -    -    -    -    -    -    -    -    -    -
.............................................................................
PITUITARY GLAND           -    -    -    -    -    -    -    -    -    -
.............................................................................
THYROID GLAND             -    -    -    -    -    -    -    -    -    -
.............................................................................
PARATHYROID GLANDS        -    -    -    -    -    -    -    -    -    -
.............................................................................
ADRENAL GLANDS            -    -    -    -    -    -    -    -    -    -
.............................................................................
SPLEEN                    -    -    -    -    -    -    -    -    -    -
.............................................................................
THYMUS                    -    -    +    -    -    -    -    +    -    +
- Haemorrhage             .    .   1.    .    .    .    .   1.    .   1.
- Lymphocytolysis         .    .   1.    .    .    .    .    .    .    .
.............................................................................
MESENT. LYMPH NODE        -    -    -    -    -    -    -    -    -    -
.............................................................................
MANDIBULAR LN RIGHT       -    -    -    -    -    -    -    -    -    -
.............................................................................
PAROTID GLAND, RIGHT      -    -    -    -    -    -    -    -    -    -
.............................................................................
SUBLING.GLAND, RIGHT      -    -    -    -    -    -    -    -    -    -
.............................................................................
SUBMANDIB.GLD. RIGHT      +    -    -    -    -    -    -    -    -    -
- Hemorrhage, focal      1.    .    .    .    .    .    .    .    .    .
.............................................................................
MAMMARY GLAND             -    -    -    -    -    -    -    -    -    0
.............................................................................
SKIN/SUBCUTIS             -    -    -    -    -    -    -    -    -    -
.............................................................................
SKELETAL MUSCLE           -    -    -    -    -    -    -    -    -    -
.............................................................................
BONE, FEMUR               -    -    -    -    -    -    -    -    -    -
.............................................................................
JOINT,KNEE,RIGHT          -    -    -    -    -    -    -    -    -    -
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   11/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-------------------------------------------------------------------------
ANIMAL NUMBER :
                          1    2    3    4    5    6    7    8    9   10
                        MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-------------------------------------------------------------------------
EYES                      -    -    -    -*   -    -    -    -    -    -
.........................................................................
OPTIC NERVES              -    -    -    -    -    -    0    -    -    -
.........................................................................
STERNUM                   -    -    -    -    -    -    -    -    -    -
.........................................................................
```

PATHOLOGY REPORT PAGE : 12/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 01, 0 mgTOS/kg

ANIMAL NUMBER :

	11	12	13	14	15	16	17	18	19	20
	FK0	FK0	FK0	FK0	FK0	FK0	FK0	FK0	FK0	FK0
BRAIN CEREBRUM	-	-	-	-	-	-	-	-	-	-
BRAIN CEREBELLUM	-	-	-	-	-	-	-	-	-	-
BRAIN PONS/MEDULLA	-	-	-	+	-	-	-	-	-	-
- Haemorrhage	.	.	.	1.	.	.	.	.	.	.
SPINAL CORD, CERVIC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, THORAC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, LUMBAR	0	-	-	-	-	-	-	-	-	-
SCIATIC NERVE,RIGHT	-	-	-	-	-	-	-	-	-	-
HEART	-	-	-	-	-	-	-	-	-	-
AORTA	-	-	-	-	-	-	-	-	-	-
LARYNX	-	-	-	-	-	-	+	+	-	-
- Mononuclear cells	.	.	.	.	.	.	1.	1.	.	.
TRACHEA	+.	+	-	-	-	-	-	+	-	-
- Mononuclear cells	1.	1.	.	.	.	.	.	1.	.	.
LUNG	+	+	-	+	-	-	-	+	+	+
- Osseous metaplas foc	.	.	.	1.	.	.	.	.	1.	1.
- Mononucl cells focal	.	.	.	.	.	.	.	1.	.	.
- Granulocytes	1.	.	.	.	.	.	.	.	1.	.
- Arterial mineralizat	.	1.	.	.	.	.	.	.	1.	.
- Alveolar macrophages	1.	.	.	.	.	.	.	.	.	.
- Haemorrhage	.	.	.	.	.	.	.	1.	.	.
TONGUE	-	-	-	-	-	-	-	-	-	-
ESOPHAGUS	-	-	-	-	-	-	-	-	-	-
STOMACH NONGLANDULAR	-	-	-	-	-	+	-	-	-	-
- Mononuclear cells	.	.	.	.	.	1.	.	.	.	.

```
PATHOLOGY REPORT                                    PAGE       :   13/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                        11   12   13   14   15   16   17   18   19   20
                      FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
STOMACH GLANDULAR       -    -    -    -    -    +    -    -    -    -
- Mononuclear cells      .    .    .    .    .   1.    .    .    .    .
.............................................................................
DUODENUM                -    -    -    -    -    -    -    -    -    -
.............................................................................
JEJUNUM                 -    -    -    -    -    -    -    -    -    -
.............................................................................
ILEUM                   -    -    -    -    -    -    -    -    -    -
.............................................................................
CECUM                   0    -    -    -    -    -    -    -    -    -
.............................................................................
COLON                   -    -    -    -    -    -    -    -    -    -
.............................................................................
RECTUM                  -    -    -    -    -    +    -    -    -    -
- Inflammation           .    .    .    .    .   1.    .    .    .    .
.............................................................................
LIVER                   -    -    -    +    -    +    -    -    -    -
- EMH/Mononuclear cell   .    .    .   1.    .   1.    .    .    .    .
.............................................................................
PANCREAS                -    +    -    -    +    -    -    +    +    +
- Interstitial inflam    .    .    .    .    .    .    .    .    .   1.
- Mononuclear cells      .   1.    .    .   1.    .    .   1.   1.    .
.............................................................................
KIDNEYS                 +    -    +    +    +    -    -    +    +    -
- Basoph/Dilat tubules ( 1.    .    . ( 1.    .    .    .   1*    .    .
- Mineralisation, foc    .    .    .    .    .    .    .    .   1.    .
- Mononucl cells,focal   .    .    .    . ( 1.    .    .    .    .    .
- Tubular casts, focal   .    . ( 1. ( 1.    .    .    .    .    .    .
.............................................................................
URETERS                 -    -    -    -    -    -    -    -    -    -
.............................................................................
URINARY BLADDER         -    -    -    0.   -    -    -    -    +    -
- Mononuclear cells      .    .    .    .    .    .    .    .   1.    .
.............................................................................
OVARIES                 -*   -*   -*   -*   -*   -*   -*   -*   -*   -*
.............................................................................
OVIDUCTS                -    -    -    -    -    -    -    -    -    -
.............................................................................
UTERUS                  -    -    -    -    -    -    -    -    -    -
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   14/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         11   12   13   14   15   16   17   18   19   20
                       FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
CERVIX                   -    -    -    0    -    -    -    -    0    -
.............................................................................
VAGINA                   -    -    -    -    -    -    -    -    -    -
.............................................................................
PITUITARY GLAND          -    -    -    -    -    -    -    -    -    -
.............................................................................
THYROID GLAND            -    -    -    -    +    -    +    -    -    -
- Hyperplas foll epith    .    .    .    .   1.    .    .    .    .    .
- Ultimobranchial cyst    .    .    .    .    .    .   1.    .    .    .
.............................................................................
PARATHYROID GLANDS       -    -    -    -    -    -    -    -    -    -
.............................................................................
ADRENAL GLANDS           -    -    -    -    -    -    -    -    -    -
.............................................................................
SPLEEN                   -    -    -    -    -    -    -    -    -    -
.............................................................................
BONE MARROW SMEAR        '    '    '    '    '    '    '    -    '    '
.............................................................................
THYMUS                   -    +    +    +    -    +    -    +    +    +
- Tubular structures      .   1.   1.   1.    .   1.    .    .   1.   1.
- Lymphocytolysis         .    .    .    .    .    .    .   1.   1.    .
.............................................................................
MESENT. LYMPH NODE       -    -    -    -    -    -    -    -    -    -
.............................................................................
MANDIBULAR LN RIGHT      -    -    -    -    +    -    -    -    -    -
- Haemorrhage focal       .    .    .    .   1.    .    .    .    .    .
.............................................................................
SALIVARY GLANDS          '    '    '    '    '    '    +    '    '    '
- Adenocarcinoma                                        (N0.
.............................................................................
PAROTID GLAND, RIGHT     -    -    +    +    -    -    -    -    -    -
- Basophilia acinar       .    .   1.   1.    .    .    .    .    .    .
.............................................................................
SUBLING.GLAND, RIGHT     -    -    -    -    -    -    +    -    +    -
- Hyperplas excr ducts    .    .    .    .    .    .   1.    .   1.    .
.............................................................................
SUBMANDIB.GLD. RIGHT     -    -    -    -    -    -   -G    -    -    -
.............................................................................
MAMMARY GLAND            -    -    -    -    -    -    -    -    -    -
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   15/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 01, 0 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         11   12   13   14   15   16   17   18   19   20
                       FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
SKIN/SUBCUTIS            -    -    -    -    +    -    -    -    -    -
- Mononuclear cells       .    .    .    .   1.    .    .    .    .    .
.............................................................................
SKELETAL MUSCLE          -    -    -    -    -    -    -    -    -    -
.............................................................................
BONE, FEMUR              -    -    -    -    -    -    -    -    -    -
.............................................................................
JOINT,KNEE,RIGHT         -    -    -    -    -    -    -    -    -    -
.............................................................................
EYES                     -    -    -    -*   -    -    -    -    -    -
.............................................................................
OPTIC NERVES             0    -    -    -    -    -    -    -    -    -
.............................................................................
STERNUM                  -    -    -    -    -    +    -    -    -    -
- Mononuclear cells       .    .    .    .    .   2.    .    .    .    .
- Degen/Regen myofiber    .    .    .    .    .   1.    .    .    .    .
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   16/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         41   42   43   44   45   46   47   48   49   50
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0+ MK0
-----------------------------------------------------------------------------
GENERAL OBSERVATIONS     '    '    '    '    '    '    '    '    'G   '
.............................................................................
BRAIN CEREBRUM           '    '    '    '    '    '    '    '    -    '
.............................................................................
BRAIN CEREBELLUM         '    '    '    '    '    '    '    '    -    '
.............................................................................
BRAIN PONS/MEDULLA       '    '    '    '    '    '    '    '    -    '
.............................................................................
SPINAL CORD, CERVIC.     '    '    '    '    '    '    '    '    -    '
.............................................................................
SPINAL CORD, THORAC.     '    '    '    '    '    '    '    '    -    '
.............................................................................
SPINAL CORD, LUMBAR      '    '    '    '    '    '    '    '    -    '
.............................................................................
SCIATIC NERVE,RIGHT      '    '    '    '    '    '    '    '    -    '
.............................................................................
HEART                    '    '    '    '    '    '    '    '    -    '
.............................................................................
AORTA                    '    '    '    '    '    '    '    '    -    '
.............................................................................
LARYNX                   '    '    '    '    '    '    '    '    -*   '
.............................................................................
TRACHEA                  '    '    '    '    '    '    '    '    -*   '
.............................................................................
LUNG                     '    '    '    '    '    '    '    '    -    '
.............................................................................
TONGUE                   '    '    '    '    '    '    '    '    0    '
.............................................................................
ESOPHAGUS                '    '    '    '    '    '    '    '    -    '
.............................................................................
STOMACH NONGLANDULAR     '    '    '    '    '    '    '    '    -    '
.............................................................................
STOMACH GLANDULAR        '    '    '    '    '    '    '    '    -*   '
.............................................................................
SMALL INTESTINE          '    '    '    '    '    '    '    '     *   '
.............................................................................
LARGE INTESTINE          '    '    '    '    '    '    '    '     *   '
.............................................................................
LIVER                    '    '    '    '    '    '    '    '    -*   '
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   17/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         41   42   43   44   45   46   47   48   49   50
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0+ MK0
-----------------------------------------------------------------------------
PANCREAS                 '    '    '    '    '    '    '    '    -    '
.............................................................................
KIDNEYS                  '    '    '    '    '    '    '    '    -*   '
.............................................................................
URETERS                  '    '    '    '    '    '    '    '     *   '
.............................................................................
URINARY BLADDER          '    '    '    '    '    '    '    '    -    '
.............................................................................
TESTES                   '    '    '    '    '    '    '    '    -    '
.............................................................................
EPIDIDYMIDES             '    '    '    '    '    '    '    '    -    '
.............................................................................
PROSTATE GLAND           '    '    '    '    '    '    '    '    -*   '
.............................................................................
SEMIN.VESICLE            '    '    '    '    '    '    '    '    -*   '
.............................................................................
PITUITARY GLAND          '    '    '    '    '    '    '    '    0    '
.............................................................................
THYROID GLAND            '    '    '    '    '    '    '    '    0    '
.............................................................................
PARATHYROID GLANDS       '    '    '    '    '    '    '    '    0    '
.............................................................................
ADRENAL GLANDS           '    '    '    '    '    '    '    '    -*   '
.............................................................................
SPLEEN                   '    '    '    '    '    '    '    '    -    '
.............................................................................
THYMUS                   '    '    '    '    '    '    '    '    -    '
.............................................................................
MESENT. LYMPH NODE       '    '    '    '    '    '    '    '    -    '
.............................................................................
MANDIBULAR LN RIGHT      '    '    '    '    '    '    '    '    -    '
.............................................................................
PAROTID GLAND, RIGHT     '    '    '    '    '    '    '    '    -    '
.............................................................................
SUBLING.GLAND, RIGHT     '    '    '    '    '    '    '    '    -    '
.............................................................................
SUBMANDIB.GLD. RIGHT     '    '    '    '    '    '    '    '    -    '
.............................................................................
MAMMARY GLAND            '    '    '    '    '    '    '    '    -    '
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   18/  94
INDIVIDUAL ANIMAL DATA                           Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                        41   42   43   44   45   46   47   48   49   50
                      MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0+ MK0
-----------------------------------------------------------------------
SKIN/SUBCUTIS           '    '    '    '    '    '    '    '    -    '
.......................................................................
SKELETAL MUSCLE         '    '    '    '    '    '    '    '    -    '
.......................................................................
BONE, FEMUR             '    '    '    '    '    '    '    '    -    '
.......................................................................
JOINT,KNEE,RIGHT        '    '    '    '    '    '    '    '    -    '
.......................................................................
EYES                    '    '    '    '    '    '    '    '    -    '
.......................................................................
OPTIC NERVES            '    '    '    '    '    '    '    '    -    '
.......................................................................
STERNUM                 '    '    '    '    '    '    '    '    -    '
.......................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   19/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-------------------------------------------------------------------------
ANIMAL NUMBER :
                        51   52   53   54   55   56   57   58   59   60
                      FK0+ FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-------------------------------------------------------------------------
GENERAL OBSERVATIONS     '*   '    '    '    '    '    '    '    '    '
.........................................................................
BRAIN CEREBRUM           -    '    '    '    '    '    '    '    '    '
.........................................................................
BRAIN CEREBELLUM         -    '    '    '    '    '    '    '    '    '
.........................................................................
BRAIN PONS/MEDULLA       -    '    '    '    '    '    '    '    '    '
.........................................................................
SPINAL CORD, CERVIC.     -    '    '    '    '    '    '    '    '    '
.........................................................................
SPINAL CORD, THORAC.     -    '    '    '    '    '    '    '    '    '
.........................................................................
SPINAL CORD, LUMBAR      -    '    '    '    '    '    '    '    '    '
.........................................................................
SCIATIC NERVE,RIGHT      -    '    '    '    '    '    '    '    '    '
.........................................................................
HEART                    -    '    '    '    '    '    '    '    '    '
.........................................................................
AORTA                    -    '    '    '    '    '    '    '    '    '
.........................................................................
LARYNX                   -    '    '    '    '    '    '    '    '    '
.........................................................................
TRACHEA                  -    '    '    '    '    '    '    '    '    '
.........................................................................
LUNG                    +G    '    '    '    '    '    '    '    '    '
- Congestion            P*
.........................................................................
TONGUE                   -    '    '    '    '    '    '    '    '    '
.........................................................................
ESOPHAGUS                -    '    '    '    '    '    '    '    '    '
.........................................................................
STOMACH NONGLANDULAR     +    '    '    '    '    '    '    '    '    '
- Mononuclear cells      1.
.........................................................................
STOMACH GLANDULAR       +*    '    '    '    '    '    '    '    '    '
- Mononuclear cells      1.
.........................................................................
SMALL INTESTINE          *    '    '    '    '    '    '    '    '    '
.........................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   20/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-------------------------------------------------------------------------
ANIMAL NUMBER :
                         51   52   53   54   55   56   57   58   59   60
                       FK0+ FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-------------------------------------------------------------------------
LARGE INTESTINE           *   '    '    '    '    '    '    '    '    '
.........................................................................
RECTUM                   -    '    '    '    '    '    '    '    '    '
.........................................................................
LIVER                    -    '    '    '    '    '    '    '    '    '
.........................................................................
PANCREAS                 -.   '    '    '    '    '    '    '    '    '
.........................................................................
KIDNEYS                  -    '    '    '    '    '    '    '    '    '
.........................................................................
URETERS                  -.   '    '    '    '    '    '    '    '    '
.........................................................................
URINARY BLADDER          -.   '    '    '    '    '    '    '    '    '
.........................................................................
OVARIES                  -*   '    '    '    '    '    '    '    '    '
.........................................................................
OVIDUCTS                 -    '    '    '    '    '    '    '    '    '
.........................................................................
UTERUS                   -    '    '    '    '    '    '    '    '    '
.........................................................................
CERVIX                   -    '    '    '    '    '    '    '    '    '
.........................................................................
VAGINA                   -    '    '    '    '    '    '    '    '    '
.........................................................................
PITUITARY GLAND          -    '    '    '    '    '    '    '    '    '
.........................................................................
THYROID GLAND            -.   '    '    '    '    '    '    '    '    '
.........................................................................
PARATHYROID GLANDS       -    '    '    '    '    '    '    '    '    '
.........................................................................
ADRENAL GLANDS           -    '    '    '    '    '    '    '    '    '
.........................................................................
SPLEEN                   -.   '    '    '    '    '    '    '    '    '
.........................................................................
THYMUS                   -G   '    '    '    '    '    '    '    '    '
.........................................................................
MESENT. LYMPH NODE       -    '    '    '    '    '    '    '    '    '
.........................................................................
MANDIBULAR LN RIGHT      -    '    '    '    '    '    '    '    '    '
.........................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   21/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 03, 192 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                        51   52   53   54   55   56   57   58   59   60
                      FK0+ FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
PAROTID GLAND, RIGHT     -    '    '    '    '    '    '    '    '    '
.............................................................................
SUBLING.GLAND, RIGHT     -    '    '    '    '    '    '    '    '    '
.............................................................................
SUBMANDIB.GLD. RIGHT     -    '    '    '    '    '    '    '    '    '
.............................................................................
MAMMARY GLAND            -    '    '    '    '    '    '    '    '    '
.............................................................................
SKIN/SUBCUTIS            -    '    '    '    '    '    '    '    '    '
.............................................................................
SKELETAL MUSCLE          -    '    '    '    '    '    '    '    '    '
.............................................................................
BONE, FEMUR              -    '    '    '    '    '    '    '    '    '
.............................................................................
JOINT,KNEE,RIGHT         -    '    '    '    '    '    '    '    '    '
.............................................................................
EYES                     -    '    '    '    '    '    '    '    '    '
.............................................................................
OPTIC NERVES             -    '    '    '    '    '    '    '    '    '
.............................................................................
STERNUM                  -    '    '    '    '    '    '    '    '    '
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   22/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         61   62   63   64   65   66   67   68   69   70
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------------
BRAIN CEREBRUM           -    -    -    -    -    -    -    -    -    -
.............................................................................
BRAIN CEREBELLUM         -    -    -    -    -    -    -    -    -    -
.............................................................................
BRAIN PONS/MEDULLA       -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, CERVIC.     -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, THORAC.     -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, LUMBAR      -    -    -    -    -    -    -    -    -    -
.............................................................................
SCIATIC NERVE,RIGHT      -    -    -    -    -    -    -    -    -    -
.............................................................................
HEART                    +    -    +.   -    -    +    -    -    -    -
- Inflammation           1.    .    .    .    .    .    .    .    .    .
- Mononuclear cells       .    .   1.    .    .   1.    .    .    .    .
.............................................................................
AORTA                    -    -    -    -    -    -    -    -    -    -
.............................................................................
LARYNX                   -    -    +    -    +    +.   -    -    -    +
- Mononuclear cells       .    .   1.    .    .    .    .    .    .   1.
- Dilated glands focal    .    .    .    .   1.   1.    .    .    .    .
.............................................................................
TRACHEA                  -    -    +    -    -    -    -    +    -    -
- Mononuclear cells       .    .   1.    .    .    .    .    .    .    .
- Dilated glands focal    .    .    .    .    .    .    .   1.    .    .
.............................................................................
LUNG                     +    -    +    +    +    +    -    +    +    -
- Osseous metaplas foc    .    .   1.    .   1.    .    .    .    .    .
- Microgranuloma/s        .    .    .    .    .    .    .    .   1.    .
- Mononucl cells focal    .    .   1.   1.    .   1.    .    .   1.    .
- Arterial mineralizat   1.    .   1.   1.    .    .    .   1.   1.    .
.............................................................................
TONGUE                   -    -    -    -    -    -    -    -    -    -
.............................................................................
ESOPHAGUS                +    -    -    -    -    -    -    +    -    -
- Mononucl cells focal   1.    .    .    .    .    .    .   1.    .    .
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   23/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                         61   62   63   64   65   66   67   68   69   70
                       MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------
STOMACH NONGLANDULAR     -    -    -    -    -    -    -    -    -    -
.......................................................................
STOMACH GLANDULAR        -    -    -    -    -    -    -    -    -    -
.......................................................................
DUODENUM                 -    -    -    -    -    -    -    -    -    -
.......................................................................
JEJUNUM                  -    -    -    -    +    -    -    -    -    -
- Mononuclear cells       .    .    .    .   1.    .    .    .    .    .
.......................................................................
ILEUM                    -    -    -    -    -    -    -    -    -    -
.......................................................................
CECUM                    -    -    -    -    -    -    -    -    -    -
.......................................................................
COLON                    -    -    -    -    -    -    -    -    -    -
.......................................................................
RECTUM                   -    -    +    -    -    -    -    -    -    -
- Inflammation            .    .   1.    .    .    .    .    .    .    .
.......................................................................
LIVER                    +    +    -    -    +    -    -    +    +    -
- EMH/Mononuclear cell   1.   1.    .    .   1.    .    .   1.   1.    .
.......................................................................
PANCREAS                 +    -    -    -    +    -    +    -    -    +
- Interstitial inflam     .    .    .    .   1.    .    .    .    .    .
- Atrophy, exocr part     .    .    .    .   2.    .    .    .    .    .
- Mononuclear cells      1.    .    .    .    .    .   1.    .    .   1.
.......................................................................
KIDNEYS                  +    +    +    +    -    +    +    +    +    +
- Basoph/Dilat tubules ( 1. ( 1.   1.   1.    . ( 1. ( 1. ( 1. ( 1.   2.
- Mineralisation, foc     .    .    .   1.    .    .    .    .    .    .
- Tubular casts, focal ( 1.    .   1.    .    . ( 1.    .    . ( 1.   1.
- Glomerular degen foc    .    .    .    .    .    .    .    . ( 1.    .
.......................................................................
URETERS                  -  ( -    -    -  ( -    -    -    -  ( -    -
.......................................................................
URINARY BLADDER          -    +    -    -    -    +    -    +    +    -
- Mononuclear cells       .   1.    .    .    .   1.    .   1.   1.    .
.......................................................................
TESTES                   -    -    -    -    -    -    -    -    +    -.
- Tubular atrophy         .    .    .    .    .    .    .    .   1.    .
.......................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   24/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                        61   62   63   64   65   66   67   68   69   70
                      MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0  MK0
-----------------------------------------------------------------------
EPIDIDYMIDES            -    -    -    -    -    -    -    -    -    +
- Mononuclear cells      .    .    .    .    .    .    .    .    .   1.
.......................................................................
PROSTATE GLAND          +    +    +    +    -    +    +    +    +    +
- Mononuclear cells     1.   2.   1.   1.    .   1.   2.   1.   1.   1.
.......................................................................
SEMIN.VESICLE           -    -    -    -    -    -    -    -    -    -
.......................................................................
PITUITARY GLAND         -.   -    -    -    -    -    -    -    -    -
.......................................................................
THYROID GLAND           -    -    +    -    -    -  ( -    -    -    -
- Mononuclear cells      .    .   1.    .    .    .    .    .    .    .
.......................................................................
PARATHYROID GLANDS      -    -    -    -    0.   -    0    -    -    -
.......................................................................
ADRENAL GLANDS          -    -    -    -    -    -    +    -    -    -
- Cortical hypertrophy   .    .    .    .    .    . ( 1.    .    .    .
.......................................................................
SPLEEN                  -    -    -    -    -    -    -    -    -    -
.......................................................................
THYMUS                  -    -    -    -    +    +    -    +    +    -
- Tubular structures     .    .    .    .    .   1.    .   1.    .    .
- Haemorrhage            .    .    .    .    .    .    .   1.   1.    .
- Lymphocytolysis        .    .    .    .   1.    .    .    .    .    .
.......................................................................
MESENT. LYMPH NODE      -    -    -    +    -    -    -    0    -    -
- Haemorrhage focal      .    .    .   1.    .    .    .    .    .    .
.......................................................................
MANDIBULAR LN RIGHT     -    -    -    -    -    -    -    +    -    0
- Haemorrhage focal      .    .    .    .    .    .    .   1.    .    .
.......................................................................
PAROTID GLAND, RIGHT    -    -    -    -    -    -    -    -    -    -
.......................................................................
SUBLING.GLAND, RIGHT    -    -    -    -    -    -    -    -    -    -
.......................................................................
SUBMANDIB.GLD. RIGHT    -    -    -    -    -    -    -    -    -    -
.......................................................................
MAMMARY GLAND           -    -    -    -    -    -    -    -    -    -
.......................................................................
```

PATHOLOGY REPORT PAGE : 25/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 04, 581 mgTOS/kg

ANIMAL NUMBER :	61	62	63	64	65	66	67	68	69	70
	MK0	MK0	MK0	MK0	MK0	MK0	MK0	MK0	MK0	MK0
SKIN/SUBCUTIS	-	-	-	-	-	-	-	-	-	-
SKELETAL MUSCLE	-	-	-	-	-	-	-	-	-	-
BONE, FEMUR	-	-	-	-	-	-	-	-	-	-
JOINT,KNEE,RIGHT	-	-	-	-	-	-	-	-	-	-
EYES	-	-	-	-	-	-	+	-	-	-
- Retinal rosette	.	.	.	.	.	.	1.	.	.	.
OPTIC NERVES	-	-	-	0	0	-	-	-	-	-
STERNUM	-	-	-	-	-	-	-	-	-	-

```
PATHOLOGY REPORT                                    PAGE       :   26/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                        71   72   73   74   75   76   77   78   79   80
                      FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
BRAIN CEREBRUM          -    -    -    -    -    -    -    -    -    -
.............................................................................
BRAIN CEREBELLUM        -    -    -    -    -    -    -    -    -    -
.............................................................................
BRAIN PONS/MEDULLA      -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, CERVIC.    -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, THORAC.    -    -    -    -    -    -    -    -    -    -
.............................................................................
SPINAL CORD, LUMBAR     -    -    -    -    -    -    -    -    -    -
.............................................................................
SCIATIC NERVE,RIGHT     -    -    -    -    -    -    -    -    -    -
.............................................................................
HEART                   -    -    -    -    -    -    -    -    -    -
.............................................................................
AORTA                   -    -    -    -    -    -    -    -    +    -
- Granulomatous inflam   .    .    .    .    .    .    .    .   2.    .
.............................................................................
LARYNX                  -    -    -    -    -    -    -    -    -    -
.............................................................................
TRACHEA                 -    -    -    -    -    -    -    -    -    -
.............................................................................
LUNG                    +    +    -    -    -    -    +    -    +    -
- Pleuritis             .    .    .    .    .    .    .    .   1*    .
- Osseous metaplas foc  .    .    .    .    .    .   1.    .    .    .
- Mononucl cells focal  .    .    .    .    .    .    .    .   1.    .
- Arterial mineralizat 1.   1.    .    .    .    .   1.    .    .    .
- Alveolar macrophages  .    .    .    .    .    .   1.    .    .    .
.............................................................................
TONGUE                  +    -    -    -    -    -    -    -    -    -
- Inflamm subacu focal 1.    .    .    .    .    .    .    .    .    .
- Haemorrhage          1.    .    .    .    .    .    .    .    .    .
.............................................................................
ESOPHAGUS               -    -    -    -    -    -    -    -    -    -
.............................................................................
STOMACH NONGLANDULAR    -    -    +    -    -    -    -    -    +    -
- Hyperkeratosis focal  .    .    .    .    .    .    .    .   1.    .
- Mononuclear cells     .    .   1.    .    .    .    .    .    .    .
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   27/  94
INDIVIDUAL ANIMAL DATA                           Sponsor ref no:  20076021
-----------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------
ANIMAL NUMBER :
                        71   72   73   74   75   76   77   78   79   80
                      FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------
STOMACH GLANDULAR       -    +    -    -    -    -    +    +    -    +
- Mononuclear cells      .   1.    .    .    .    .   1.   1.    .   1.
.......................................................................
DUODENUM                -    -    -    -    -    -    -    -    -    +
- Mononuclear cells      .    .    .    .    .    .    .    .    .   1.
.......................................................................
JEJUNUM                 -    -    -    -    -    -    -    -    -    -
.......................................................................
ILEUM                   -    -    -    -    -    -    -    -    -    -
.......................................................................
CECUM                   -    -    -    -    -    -    -    -    -    -
.......................................................................
COLON                   -    -    -    -    -    -    -    -    -    -
.......................................................................
RECTUM                  -    -    -    -    -    -    +    -    -    -
- Inflammation           .    .    .    .    .    .   1.    .    .    .
.......................................................................
LIVER                   +    -    -    -    -    -    -    -    -    -
- EMH/Mononuclear cell  1.    .    .    .    .    .    .    .    .    .
.......................................................................
PANCREAS                -    -    -    +    -    -    -    -    +    -
- Mononuclear cells      .    .    .   1.    .    .    .    .   1.    .
.......................................................................
KIDNEYS                 -    -    -    -    +    +    -    +    +    +
- Basoph/Dilat tubules   .    .    .    . ( 1*   1*    . ( 1*   1*    .
- Mineralisation, foc    .    .    .    .    .    .    .   1.    .    .
- Tubular casts, focal   .    .    .    .    .   1.    .   1. ( 1. ( 1.
.......................................................................
URETERS                 -    -    -    -    - ( -    -    -    -    -
.......................................................................
URINARY BLADDER         -    -    -    -    -    -    -    -    -    -
.......................................................................
OVARIES                 -*   -*   -*   -*   -*   -*   -*   -*   -*   -*
.......................................................................
OVIDUCTS                -    -    -    -    -    -    -    -    -    -
.......................................................................
UTERUS                  -    -    -    -    -    -    -    -    -    -
.......................................................................
CERVIX                  -    -    -    -    0    -    -    -    0    0
.......................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   28/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         71   72   73   74   75   76   77   78   79   80
                       FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
VAGINA                   -    -    -    -    -    -    -    -    -    -
.............................................................................
PITUITARY GLAND          -    -    -    -    -    -    -    -    +    +
- Cyst                    .    .    .    .    .    .    .    .   1.   1.
.............................................................................
THYROID GLAND            -    -    -    -    -    -    +    -    -    -
- Ultimobranchial cyst    .    .    .    .    .    .   1.    .    .    .
.............................................................................
PARATHYROID GLANDS       -    -    -    -    -    -    -    -    -    -
.............................................................................
ADRENAL GLANDS           -    -    -    -    -    -    -    +    -    -
- Vacuolation increas     .    .    .    .    .    .    .   1.    .    .
.............................................................................
SPLEEN                   -    -    -    -    -    -    -    -    -    -
.............................................................................
THYMUS                   +    -    +    +    -    +    -    -    +    +
- Cortical atrophy        .    .    .    .    .    .    .    .   1.    .
- Tubular structures     1.    .    .   1.    .   1.    .    .    .   1.
- Ectopic parathyroid     .    .    .    .    .   1.    .    .    .    .
- Haemorrhage            1.    .   1.    .    .    .    .    .    .    .
.............................................................................
MESENT. LYMPH NODE       -    -    -    -    -    -    -    -    -    -
.............................................................................
MANDIBULAR LN RIGHT      -    -    +    -    -    -    -    -    -    -
- Haemorrhage focal       .    .   1.    .    .    .    .    .    .    .
.............................................................................
PAROTID GLAND, RIGHT     -    -    -    -    -    -    -    -    -    -
.............................................................................
SUBLING.GLAND, RIGHT     +    -    -    -    -    -    -    -    -    -
- Mononuclear cells      1.    .    .    .    .    .    .    .    .    .
.............................................................................
SUBMANDIB.GLD. RIGHT     -    -    -    -    -    -    -    -    -    -
.............................................................................
MAMMARY GLAND            -    -    -    -    -    -    -    -    -    -
.............................................................................
SKIN/SUBCUTIS            -    -    -    -    -    -    -    -    -    -
.............................................................................
SKELETAL MUSCLE          -    -    -    -    -    -    -    -    -    -
.............................................................................
```

```
PATHOLOGY REPORT                                    PAGE       :   29/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP    : 04, 581 mgTOS/kg
-----------------------------------------------------------------------------
ANIMAL NUMBER :
                         71   72   73   74   75   76   77   78   79   80
                       FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0  FK0
-----------------------------------------------------------------------------
BONE, FEMUR              -    -    -    -    -    -    -    -    -    -
.............................................................................
JOINT,KNEE,RIGHT         -    -    -    -    -    -    -    -    -    -
.............................................................................
EYES                     -    -    -    -    -    -    -    -   +G    -
- Hemorrhage              .    .    .    .    .    .    .    .   1.    .
.............................................................................
OPTIC NERVES             -    -    0    -    -    -    -    -    -    -
.............................................................................
STERNUM                  -    +    -    -    -    -    -    +    +    -
- Mononuclear cells       .   1.    .    .    .    .    .   1.   2.    .
.............................................................................
```

PATHOLOGY REPORT PAGE : 30/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 01, 0 mgTOS/kg

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
1	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
2	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
3	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
4	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
5	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
6	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
7	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
8	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
9	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
10	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
11	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
12	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
13	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
14	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
15	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
16	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
17	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
18	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
19	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
20	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07

```
PATHOLOGY REPORT                                    PAGE       :   31/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :         1
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Osseous metaplasia, focal, grade 1
   -Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
  URETERS:
    Only one of paired organs examined/present
  SUBMANDIBULAR GLAND, RIGHT:
   -Hemorrhage, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :         2
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.
```

```
PATHOLOGY REPORT                                    PAGE       :   32/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :         2
.........................................................................

* MICROSCOPIC FINDINGS

  LUNG:
   -Haemorrhage, alv./interstit. diffuse, grade 3
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
   -Mineralisation, focal, unilateral, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :         3
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  TRACHEA:
   -Mononuclear cells, focal subepithelial, grade 1
  LUNG:
   -Mononuclear cells, focal, grade 1
  URINARY BLADDER:
   -Mononuclear cells, focal, grade 1
  THYMUS:
   -Haemorrhage, focal, grade 1
   -Lymphocytolysis increased, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   33/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :         4
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  HEART:
   -Inflammation, focal, chronic ass. w. few degen. myofibers,
    grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, basop. bilat and dilat. unilat,
    bilateral, grade 1
  URETERS:
    Only one of paired organs examined/present
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  EYES:
    Lens mangler
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   34/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :         5
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LARYNX:
   -Mononuclear cells, focal, grade 1
  LUNG:
   -Arterial mineralizat, single, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  URETERS:
    Only one of paired organs examined/present
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :         6
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   35/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :         6
.........................................................................

  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
  URINARY BLADDER:
   -Mononuclear cells, focal, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 2
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :         7
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  TRACHEA:
   -Mononuclear cells, focal, grade 1
  LUNG:
   -Mononuclear cells, focal, alv. mac's. and granulocytes,
    grade 1
   -Haemorrhage, alv./interstit. diffuse, grade 1
  TONGUE:
   -Inflammation subepitelial, subacute, focal, grade 1
  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in submucosa, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   36/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :         7
.........................................................................

  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 2
  OPTIC NERVES:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :         8
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, subepithelial, grade 1
  LIVER:
   -Single cell necrosis, focal, ass. with mononuclear cells,
    grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
   -Mononuclear cells, focal, unilateral, grade 1
  EPIDIDYMIDES:
   -Mononuclear cells, focal, interstitial perivascular, bilateral,
    grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   37/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :         8
.........................................................................

  THYMUS:
   -Haemorrhage, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :         9
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Arterial mineralizat, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
   -Hyaline tubular cast, focal, unilateral, grade 1
  EPIDIDYMIDES:
   -Mononuclear cells, focal, interstitial around vessels,
    bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   38/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                        MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        10
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  BRAIN CEREBRUM:
   -Gliosis, focal, grade 1
  TESTES:
   -Tubular atrophy, focal, bilateral, grade 1
  THYMUS:
   -Haemorrhage, focal, grade 1
  MAMMARY GLAND:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   39/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        11
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  SPINAL CORD (LUMBAR SEGMENT):
    Tissue not present for histologic examination
  TRACHEA:
   -Mononuclear cells, focal, in dermis, grade 1
  LUNG:
   -Granulocytes, perivascular, focal, grade 1
   -Alveolar macrophages, focal acc. of foamy maccrophages,
    grade 1
  CECUM:
    Tissue not present for histologic examination
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
  OVARIES:
    Diestrus
  OPTIC NERVES:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   40/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        12
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  TRACHEA:
   -Mononuclear cells, focal, grade 1
  LUNG:
   -Arterial mineralizat, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in the peritoneum, grade 1
  OVARIES:
    Estrus
  THYMUS:
   -Tubular structures, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        13
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.
```

```
PATHOLOGY REPORT                                    PAGE       :   41/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        13
.........................................................................

* MICROSCOPIC FINDINGS

  KIDNEYS:
   -Hyaline tubular cast, focal, unilateral, grade 1
  OVARIES:
    Metestrus
  THYMUS:
   -Tubular structures, grade 1
  PAROTID GLAND (RIGHT):
   -Basophilia acinar, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        14
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  BRAIN PONS/MEDULLA:
   -Haemorrhage, focal, grade 1
  LUNG:
   -Osseous metaplasia, focal, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, erythroid, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
   -Hyaline tubular cast, focal, unilateral, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   42/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        14
.........................................................................

  URINARY BLADDER:
    Tissue not present for histologic examination
  OVARIES:
    Proestrus
  CERVIX:
    Tissue not present for histologic examination
  THYMUS:
   -Tubular structures, grade 1
  PAROTID GLAND (RIGHT):
   -Basophilia acinar, focal, grade 1
  EYES:
    Lens is missing.
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        15
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Mononuclear cells, focal, unilateral, grade 1
  OVARIES:
    Proestrus
  THYROID GLAND (BOTH LOBES):
   -Hyperplasia follicular epithelium, focal, single follicle,
    bilateral, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   43/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                       FEMALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        15
.............................................................................

  MANDIBULAR LYMPH NODE, RIGHT:
   -Haemorrhage, focal, grade 1
  SKIN/SUBCUTIS:
   -Mononuclear cells, focal, ass. with  hair follicle, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        16
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  STOMACH NONGLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum and in glands, grade 1
  RECTUM:
   -Inflammation, subacute, focal in submucosa, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  OVARIES:
    Metestrus
  THYMUS:
   -Tubular structures, grade 1
  STERNUM:
   -Mononuclear cells, focal, w. few apoptotic bod., grade 2
   -Degenerating/Regenerationg myofibers, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   44/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                       FEMALE
-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        17
.............................................................................

* NECROPSY FINDINGS

  SUBMANDIBULAR GLAND, RIGHT:
    01: Nodule, Single, Up to 4 mm in diameter.
  NO OTHER NECROPSY OBSERVATIONS NOTED


* MICROSCOPIC FINDINGS

  LARYNX:
   -Mononuclear cells, focal, grade 1
  OVARIES:
    Metestrus.
  THYROID GLAND (BOTH LOBES):
   -Ultimobranchial cysts, focal, bilateral, grade 1
  SALIVARY GLANDS:
   -Adenocarcinoma, well-differentiated, unilateral
    (malignant neoplasm)
    This finding corresponds to necropsy observation no.: 01
    in the SUBMANDIBULAR GLAND, RIGHT.
  SUBLINGUAL GLAND (RIGHT):
   -Hyperplasia excretory ducts, grade 1
  SUBMANDIBULAR GLAND, RIGHT:
    For diagnosis of necropsy observation no. 01 see under:
    SALIVARY GLANDS.
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   45/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
---------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
---------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                      FEMALE
---------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        18
...........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LARYNX:
   -Mononuclear cells, focal, grade 1
  TRACHEA:
   -Mononuclear cells, focal, grade 1
  LUNG:
   -Mononuclear cells, focal, grade 1
   -Haemorrhage, focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
    Mainly dilated
  OVARIES:
    Metestrus
  THYMUS:
   -Lymphocytolysis increased, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


---------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   46/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                       FEMALE
-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        19
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Osseous metaplasia, focal, grade 1
   -Granulocytes, perivascular, focal, grade 1
   -Arterial mineralizat, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitiel tissues, grade 1
  KIDNEYS:
   -Mineralisation, focal, bilateral, grade 1
  URINARY BLADDER:
   -Mononuclear cells, focal, subepitelial, grade 1
  OVARIES:
    Estrus
  CERVIX:
    Tissue not present for histologic examination
  THYMUS:
   -Tubular structures, grade 1
   -Lymphocytolysis increased, grade 1
  SUBLINGUAL GLAND (RIGHT):
   -Hyperplasia excretory ducts, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   47/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 01, 0 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        20
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Osseous metaplasia, focal, grade 1
  PANCREAS:
   -Interstitial inflammation, acute, focal, grade 1
  OVARIES:
    Proestrus going towards estrus.
  THYMUS:
   -Tubular structures, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

PATHOLOGY REPORT PAGE : 48/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 02, 58 mgTOS/kg

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
21	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
22	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
23	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
24	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
25	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
26	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
27	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
28	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
29	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
30	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
31	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
32	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
33	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
34	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
35	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
36	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
37	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
38	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
39	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
40	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07

```
PATHOLOGY REPORT                                    PAGE       :   49/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                        MALE
-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        21
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        22
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-----------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   50/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                       MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        23
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        24
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   51/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                       MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        25
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        26
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   52/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                       MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        27
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        28
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   53/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                       MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        29
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        30
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   54/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        31
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        32
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   55/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        33
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        34
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   56/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        35
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        36
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   57/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        37
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        38
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   58/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 02, 58 mgTOS/kg                                     FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        39
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        40
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

PATHOLOGY REPORT PAGE : 59/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 03, 192 mgTOS/kg

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
41	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
42	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
43	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
44	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
45	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
46	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
47	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
48	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
49	M	K0	+1	35	19-JUN-07	23-JUL-07	23-JUL-07
50	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
51	F	K0	+1	69	19-JUN-07	26-AUG-07	27-AUG-07
52	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
53	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
54	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
55	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
56	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
57	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
58	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
59	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
60	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07

```
PATHOLOGY REPORT                                    PAGE       :   60/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        41
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        42
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   61/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                      MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        43
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        44
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   62/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                      MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        45
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        46
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   63/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        47
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        48
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   64/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                       MALE
-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0/+1
  DAYS ON TEST     :    35                       * ANIMAL NO. :        49
.............................................................................

* NECROPSY FINDINGS

  GENERAL OBSERVATIONS:
    01: Animal autolytic.
  NO OTHER NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  GENERAL OBSERVATIONS:
    No microscopic finding corresponding to necropsy observation no. 01.
    Minimal to marked autolytic changes in several organs
  BRAIN CEREBRUM:
    Organ examined, no pathologic findings noted
  BRAIN CEREBELLUM:
    Organ examined, no pathologic findings noted
  BRAIN PONS/MEDULLA:
    Organ examined, no pathologic findings noted
  SPINAL CORD (CERVICAL SEGMENT):
    Organ examined, no pathologic findings noted
  SPINAL CORD (THORACIC SEGMENT):
    Organ examined, no pathologic findings noted
  SPINAL CORD (LUMBAR SEGMENT):
    Organ examined, no pathologic findings noted
  SCIATIC NERVE (RIGHT):
    Organ examined, no pathologic findings noted
  HEART:
    Organ examined, no pathologic findings noted
  AORTA:
    Organ examined, no pathologic findings noted
  LARYNX:
    Organ examined, no pathologic findings noted
    Epithelium difficult to evaluate due to autolysis
  TRACHEA:
    Organ examined, no pathologic findings noted
    Epithelium difficult to evaluate due to autolysis
```

```
PATHOLOGY REPORT                                    PAGE       :   65/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        49
.........................................................................

  LUNG:
    Organ examined, no pathologic findings noted
  TONGUE:
    Tissue not present for histologic examination
  ESOPHAGUS:
    Organ examined, no pathologic findings noted
  STOMACH NONGLANDULAR PART:
    Organ examined, no pathologic findings noted
  STOMACH GLANDULAR PART:
    Organ examined, no pathologic findings noted
    difficult to evaluate due to autolysis
  SMALL INTESTINE:
    Organ not examined
    Organs autolytic. Evaluation not possible.
  LARGE INTESTINE:
    Organ not examined
    Organs autolytic. Evaluation not possible.
  LIVER:
    Organ examined, no pathologic findings noted
    difficult to evaluate due to autolysis
  PANCREAS:
    Organ examined, no pathologic findings noted
  KIDNEYS:
    Organ examined, no pathologic findings noted
    difficult to evaluate due to autolysis
  URETERS:
    Organ not examined
    Organs autolytic. Evaluation not possible.
  URINARY BLADDER:
    Organ examined, no pathologic findings noted
  TESTES:
    Organ examined, no pathologic findings noted
  EPIDIDYMIDES:
    Organ examined, no pathologic findings noted
  PROSTATE GLAND:
    Organ examined, no pathologic findings noted
    difficult to evaluate due to autolysis
```

```
PATHOLOGY REPORT                                    PAGE       :   66/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                       MALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        49
.............................................................................

  SEMINAL VESICLE:
    Organ examined, no pathologic findings noted
    difficult to evaluate due to autolysis
  PITUITARY GLAND:
    Tissue not present for histologic examination
  THYROID GLAND (BOTH LOBES):
    Tissue not present for histologic examination
  PARATHYROID GLANDS:
    Tissue not present for histologic examination
  ADRENAL GLANDS:
    Organ examined, no pathologic findings noted
    Organs autolytic. Evaluation not possible.
  SPLEEN:
    Organ examined, no pathologic findings noted
  THYMUS:
    Organ examined, no pathologic findings noted
  MESENTERIC LYMPH NODE:
    Organ examined, no pathologic findings noted
  MANDIBULAR LYMPH NODE, RIGHT:
    Organ examined, no pathologic findings noted
  PAROTID GLAND (RIGHT):
    Organ examined, no pathologic findings noted
  SUBLINGUAL GLAND (RIGHT):
    Organ examined, no pathologic findings noted
  SUBMANDIBULAR GLAND, RIGHT:
    Organ examined, no pathologic findings noted
  MAMMARY GLAND:
    Organ examined, no pathologic findings noted
  SKIN/SUBCUTIS:
    Organ examined, no pathologic findings noted
  SKELETAL MUSCLE:
    Organ examined, no pathologic findings noted
  BONE, FEMUR:
    Organ examined, no pathologic findings noted
  JOINT (KNEE, RIGHT):
    Organ examined, no pathologic findings noted
```

```
PATHOLOGY REPORT                                    PAGE       :   67/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                       MALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        49
.............................................................................

  EYES:
    Organ examined, no pathologic findings noted
  OPTIC NERVES:
    Organ examined, no pathologic findings noted
  STERNUM:
    Organ examined, no pathologic findings noted


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                        * ANIMAL NO. :        50
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-----------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   68/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                     FEMALE
-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0/+1
  DAYS ON TEST     :    69                       * ANIMAL NO. :        51
.............................................................................

* NECROPSY FINDINGS

  LUNG:
    01: All lobes: discoloration, red.
  THYMUS:
    01: Discoloration: Yellow.
  NO OTHER NECROPSY OBSERVATIONS NOTED


* MICROSCOPIC FINDINGS

  GENERAL OBSERVATIONS:
    HISTOLOGIC EXAMINATION NOT REQUIRED
    Minimal to marked autolysis was seen in several organs, and
    congestion was also present in some organs.
  BRAIN CEREBRUM:
    Organ examined, no pathologic findings noted
  BRAIN CEREBELLUM:
    Organ examined, no pathologic findings noted
  BRAIN PONS/MEDULLA:
    Organ examined, no pathologic findings noted
  SPINAL CORD (CERVICAL SEGMENT):
    Organ examined, no pathologic findings noted
  SPINAL CORD (THORACIC SEGMENT):
    Organ examined, no pathologic findings noted
  SPINAL CORD (LUMBAR SEGMENT):
    Organ examined, no pathologic findings noted
  SCIATIC NERVE (RIGHT):
    Organ examined, no pathologic findings noted
  HEART:
    Organ examined, no pathologic findings noted
  AORTA:
    Organ examined, no pathologic findings noted
  LARYNX:
    Organ examined, no pathologic findings noted
```

```
PATHOLOGY REPORT                                    PAGE       :   69/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        51
.........................................................................

  TRACHEA:
    Organ examined, no pathologic findings noted
  LUNG:
    Correlated to the finding of congestion and erythrocytes
    in the alveolar lumen.
    No microscopic finding corresponding to necropsy observation no. 01.
   -Congestion
    Some erythrocytes in alveolar lumen probably related to
    hypostasis.
  TONGUE:
    Organ examined, no pathologic findings noted
  ESOPHAGUS:
    Organ examined, no pathologic findings noted
  STOMACH NONGLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  STOMACH GLANDULAR PART:
    difficult to evaluate due to autolysis
   -Mononuclear cells, focal, in peritoneum, grade 1
  SMALL INTESTINE:
    Organ not examined
    Organs autolytic. Evaluation not possible.
  LARGE INTESTINE:
    Organ not examined
    Organs autolytic. Evaluation not possible.
  RECTUM:
    Organ examined, no pathologic findings noted
  LIVER:
    Organ examined, no pathologic findings noted
  PANCREAS:
    Organ examined, no pathologic findings noted
  KIDNEYS:
    Organ examined, no pathologic findings noted
  URETERS:
    Organ examined, no pathologic findings noted
  URINARY BLADDER:
    Organ examined, no pathologic findings noted
```

```
PATHOLOGY REPORT                                    PAGE       :   70/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                     FEMALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        51
.............................................................................

  OVARIES:
    Organ examined, no pathologic findings noted
    Proestrus
  OVIDUCTS:
    Organ examined, no pathologic findings noted
  UTERUS:
    Organ examined, no pathologic findings noted
  CERVIX:
    Organ examined, no pathologic findings noted
  VAGINA:
    Organ examined, no pathologic findings noted
  PITUITARY GLAND:
    Organ examined, no pathologic findings noted
  THYROID GLAND (BOTH LOBES):
    Organ examined, no pathologic findings noted
  PARATHYROID GLANDS:
    Organ examined, no pathologic findings noted
  ADRENAL GLANDS:
    Organ examined, no pathologic findings noted
  SPLEEN:
    Organ examined, no pathologic findings noted
  THYMUS:
    Organ examined, no pathologic findings noted
    Autolysis
  MESENTERIC LYMPH NODE:
    Organ examined, no pathologic findings noted
  MANDIBULAR LYMPH NODE, RIGHT:
    Organ examined, no pathologic findings noted
  PAROTID GLAND (RIGHT):
    Organ examined, no pathologic findings noted
  SUBLINGUAL GLAND (RIGHT):
    Organ examined, no pathologic findings noted
  SUBMANDIBULAR GLAND, RIGHT:
    Organ examined, no pathologic findings noted
  MAMMARY GLAND:
    Organ examined, no pathologic findings noted
```

```
PATHOLOGY REPORT                                    PAGE       :   71/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        51
.........................................................................

  SKIN/SUBCUTIS:
    Organ examined, no pathologic findings noted
  SKELETAL MUSCLE:
    Organ examined, no pathologic findings noted
  BONE, FEMUR:
    Organ examined, no pathologic findings noted
  JOINT (KNEE, RIGHT):
    Organ examined, no pathologic findings noted
  EYES:
    Organ examined, no pathologic findings noted
  OPTIC NERVES:
    Organ examined, no pathologic findings noted
  STERNUM:
    Organ examined, no pathologic findings noted


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        52
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   72/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        53
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        54
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   73/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        55
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        56
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   74/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        57
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        58
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   75/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 03, 192 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        59
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        60
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.


-------------------------------------------------------------------------
```

PATHOLOGY REPORT PAGE : 76/ 94
INDIVIDUAL ANIMAL DATA Sponsor ref no: 20076021

TEST ARTICLE : SP 387-TL1 PATHOL. NO.: 65860 HES
TEST SYSTEM : RAT, 3-month, Oral DATE : 21-FEB-08
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 04, 581 mgTOS/kg

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
61	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
62	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
63	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
64	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
65	M	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
66	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
67	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
68	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
69	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
70	M	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
71	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
72	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
73	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
74	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
75	F	K0	K0	92	19-JUN-07	18-SEP-07	18-SEP-07
76	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
77	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
78	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
79	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07
80	F	K0	K0	93	19-JUN-07	19-SEP-07	19-SEP-07

```
PATHOLOGY REPORT                                    PAGE       :   77/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                      MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        61
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  HEART:
   -Inflammation, focal, chronic ass. w. few degen. myofibers,
    grade 1
  LUNG:
   -Arterial mineralizat, grade 1
  ESOPHAGUS:
   -Mononuclear cells, focal, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
   -Hyaline tubular cast, focal, unilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   78/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                      MALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        62
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
  URETERS:
    Only one of paired organs examined/present
  URINARY BLADDER:
   -Mononuclear cells, focal, subepitelial, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, grade 2
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        63
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.
```

```
PATHOLOGY REPORT                                    PAGE       :   79/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        63
.........................................................................

* MICROSCOPIC FINDINGS

  HEART:
   -Mononuclear cells, focal, grade 1
  LARYNX:
   -Mononuclear cells, focal, grade 1
  TRACHEA:
   -Mononuclear cells, diffuse, grade 1
  LUNG:
   -Osseous metaplasia, focal, grade 1
   -Mononuclear cells, alv./perivasc., multifocal, grade 1
   -Arterial mineralizat, single, grade 1
  RECTUM:
   -Inflammation, subacute, diffuse in submucosa, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
   -Hyaline tubular cast, focal, bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  THYROID GLAND (BOTH LOBES):
   -Mononuclear cells, focal, bilateral, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        64
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.
```

```
PATHOLOGY REPORT                                    PAGE       :   80/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        64
.........................................................................

* MICROSCOPIC FINDINGS

  LUNG:
   -Mononuclear cells, few granulocytes, involv. vasc. wall,
    grade 1
   -Arterial mineralizat, few, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
   -Mineralisation, focal, bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  MESENTERIC LYMPH NODE:
   -Haemorrhage focal, in sinus, grade 1
  OPTIC NERVES:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        65
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LARYNX:
   -Dilated glands focal, grade 1
  LUNG:
   -Osseous metaplasia, focal, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   81/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        65
.........................................................................

  JEJUNUM:
   -Mononuclear cells, focal in the mesentery, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  PANCREAS:
   -Interstitial inflammation, subacute, focal, grade 1
   -Atrophy, exocrine part, ass. w. incr. apoptotic bodies,
    grade 2
  URETERS:
    Only one of paired organs examined/present
  PARATHYROID GLANDS:
    Tissue not present for histologic examination
  THYMUS:
   -Lymphocytolysis increased, grade 1
  OPTIC NERVES:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        66
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  HEART:
   -Mononuclear cells, focal, grade 1
  LARYNX:
   -Dilated glands focal, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   82/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                      MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        66
.........................................................................

  LUNG:
   -Mononuclear cells, alv./perivasc., multifocal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, dil.tub. unilat medulla,
    unilateral, grade 1
   -Hyaline tubular cast, focal, unilateral, grade 1
  URINARY BLADDER:
   -Mononuclear cells, focal, subepitelial, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  THYMUS:
   -Tubular structures, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        67
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 2
  THYROID GLAND (BOTH LOBES):
    Only one of paired organs examined/present
```

```
PATHOLOGY REPORT                                    PAGE       :   83/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                       MALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        67
.............................................................................

  PARATHYROID GLANDS:
    Tissue not present for histologic examination
  ADRENAL GLANDS:
   -Cortical hypertrophy, focal, unilateral, grade 1
  EYES:
   -Retinal rosette, focal, bilateral, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                        * ANIMAL NO. :        68
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  TRACHEA:
   -Dilated glands focal, grade 1
  LUNG:
   -Arterial mineralizat, single, grade 1
  ESOPHAGUS:
   -Mononuclear cells, focal, in the serosa, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
  URINARY BLADDER:
   -Mononuclear cells, focal, subepitelial, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   84/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        68
.........................................................................

  THYMUS:
   -Tubular structures, grade 1
   -Haemorrhage, focal, grade 1
  MESENTERIC LYMPH NODE:
    Tissue not present for histologic examination
  MANDIBULAR LYMPH NODE, RIGHT:
   -Haemorrhage, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        69
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Microgranuloma/s, focal, grade 1
   -Mononuclear cells, alv./perivasc.,few granulocyt, multifoc,
    grade 1
   -Arterial mineralizat, few, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
   -Hyaline tubular cast, focal, unilateral, grade 1
   -Glomerular degeneration, focal, unilateral, grade 1
  URETERS:
    Only one of paired organs examined/present
```

```
PATHOLOGY REPORT                                    PAGE       :   85/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                       MALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        69
.............................................................................

  URINARY BLADDER:
   -Mononuclear cells, focal, subepitelial, grade 1
  TESTES:
   -Tubular atrophy, focal, bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
  THYMUS:
   -Haemorrhage, focal, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        70
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LARYNX:
   -Mononuclear cells, focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 2
   -Hyaline tubular cast, focal, bilateral, grade 1
  EPIDIDYMIDES:
   -Mononuclear cells, focal, interstitial, bilateral, grade 1
  PROSTATE GLAND:
   -Mononuclear cells, focal, interstitial, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   86/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     MALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        70
.........................................................................

  MANDIBULAR LYMPH NODE, RIGHT:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   87/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        71
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Arterial mineralizat, grade 1
  TONGUE:
   -Inflammation subepitelial, subacute, focal, grade 1
   -Haemorrhage, focal, grade 1
  LIVER:
   -EMH/Mononuclear cells, focal, grade 1
  OVARIES:
    Metestrus
  THYMUS:
   -Tubular structures, grade 1
   -Haemorrhage, focal, grade 1
  SUBLINGUAL GLAND (RIGHT):
   -Mononuclear cells, focal, in adnexal fat tissue, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   88/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        72
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Arterial mineralizat, grade 1
  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  OVARIES:
    Metestrus
  STERNUM:
   -Mononuclear cells, focal, w. few apoptotic bod., grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        73
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  STOMACH NONGLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  OVARIES:
    Diestrus
```

```
PATHOLOGY REPORT                                    PAGE       :   89/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        73
.........................................................................

  THYMUS:
   -Haemorrhage, focal, grade 1
  MANDIBULAR LYMPH NODE, RIGHT:
   -Haemorrhage, focal, subcapsular sinus, grade 1
  OPTIC NERVES:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        74
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  OVARIES:
    Estrus
  THYMUS:
   -Tubular structures, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   90/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    92                       * ANIMAL NO. :        75
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
    Mainly basophilic tubules
  OVARIES:
    Proestrus
  CERVIX:
    Tissue not present for histologic examination
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        76
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
    Dilated
   -Hyaline tubular cast, focal, bilateral, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   91/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     FEMALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        76
.............................................................................

  URETERS:
    Only one of paired organs examined/present
  OVARIES:
    Metestrus
  THYMUS:
   -Tubular structures, grade 1
   -Ectopic parathyroid, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        77
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  LUNG:
   -Osseous metaplasia, focal, grade 1
   -Arterial mineralizat, focal, grade 1
   -Alveolar macrophages, focal acc of foamy maccrophages, grade 1
  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  RECTUM:
   -Inflammation, subacute,focal in the mesentery, grade 1
  OVARIES:
    Proestrus
  THYROID GLAND (BOTH LOBES):
   -Ultimobranchial cysts, focal, bilateral, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   92/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        77
.........................................................................

  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        78
.........................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, unilateral, grade 1
    Basophilic
   -Mineralisation, focal, bilateral, grade 1
   -Hyaline tubular cast, focal, bilateral, grade 1
  OVARIES:
    Estrus
  ADRENAL GLANDS:
   -Vacuolation increased, microvesic., focal, in fasciculata,
    bilateral, grade 1
  STERNUM:
   -Mononuclear cells, focal, adventitial round artery, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-------------------------------------------------------------------------
```

```
PATHOLOGY REPORT                                    PAGE       :   93/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                   FEMALE
-------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        79
.........................................................................

* NECROPSY FINDINGS

  EYES:
    01: Left: Enlarged, Discoloration: Red.
  NO OTHER NECROPSY OBSERVATIONS NOTED


* MICROSCOPIC FINDINGS

  AORTA:
   -Granulomatous inflammation, focal, grade 2
  LUNG:
   -Pleuritis, diffuse,  chronic, grade 1
    Mainly mononuclear cells with a few granulocytes.
   -Mononuclear cells, focal, grade 1
  STOMACH NONGLANDULAR PART:
   -Hyperkeratosis focal, grade 1
  PANCREAS:
   -Mononuclear cells, focal, in interstitium, grade 1
  KIDNEYS:
   -Basophilic/Dilated tubules, focal, bilateral, grade 1
    Both basophilic and dilated
   -Hyaline tubular cast, focal, unilateral, grade 1
  OVARIES:
    Diestrus
  CERVIX:
    Tissue not present for histologic examination
  PITUITARY GLAND:
   -Cyst, focal, grade 1
  THYMUS:
   -Cortical atrophy, ass with mononucl. cells in pleura, grade 1
  EYES:
    Haemorrhage in lacrimal gland
    No microscopic finding corresponding to necropsy observation no. 01.
   -Hemorrhage, in lacrimal gland, bilateral, grade 1
```

```
PATHOLOGY REPORT                                    PAGE       :   94/  94
INDIVIDUAL ANIMAL DATA                            Sponsor ref no:  20076021
-----------------------------------------------------------------------------
TEST ARTICLE  : SP 387-TL1                          PATHOL. NO.: 65860 HES
TEST SYSTEM   : RAT, 3-month, Oral                  DATE       : 21-FEB-08
SPONSOR       : Novozymes A/S                       PathData©System V6.2a2
-----------------------------------------------------------------------------
TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP    : 04, 581 mgTOS/kg                                     FEMALE
-----------------------------------------------------------------------------

                                          CONT./FF. ANIMAL NO. :        79
.............................................................................

  STERNUM:
   -Mononuclear cells, focal, w. few apoptotic bod., grade 2
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------

* STATE AT NECROPSY: K0
  DAYS ON TEST     :    93                       * ANIMAL NO. :        80
.............................................................................

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.


* MICROSCOPIC FINDINGS

  STOMACH GLANDULAR PART:
   -Mononuclear cells, focal, in peritoneum and mucosa, grade 1
  DUODENUM:
   -Mononuclear cells, focal in the submucosa, grade 1
  KIDNEYS:
   -Hyaline tubular cast, focal, unilateral, grade 1
  OVARIES:
    Proestrus going towards estrus.
  CERVIX:
    Tissue not present for histologic examination
  PITUITARY GLAND:
   -Cyst, focal, grade 1
  THYMUS:
   -Tubular structures, grade 1
  ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.


-----------------------------------------------------------------------------
```

Appendix II Dose formulation analysis (9 pages, excl. this cover page)

Process Support Laboratories
Enzyme Analytical Laboratory

MGhi
2007-11-15
Luna no. 2007-45393-01

LAB Scantox study no: 65860
Novozymes reference no.: 20076021

SP387/ TL1
3 MONTHS TOXICITY STUDY IN RATS
Investigation Report

Analysis of samples returned from LAB Scantox for contents check

Content:

1 General information

Sponsor Monitor:

[redacted]
Safety & Toxicology
Novozymes A/S
Krogshøjvej 36
DK-2880 Bagsværd
[redacted]

Principal Investigator: [redacted]
Enzyme Analytical Laboratory
Process Support Laboratories
Novozymes A/S
Krogshøjvej 36
DK-2880 Bagsværd
[redacted]

Study Director: [redacted]
LAB Research (Scantox)
36A Hestehavevej
DK-4623 Lille Skensved
[redacted]

Laboratory: Enzyme Analytical Laboratory (EAL)
Process Support Laboratories
Novozymes A/S
Krogshøjvej 36, 2880 Bagsværd

Personel: Laboratory Technicians:
Birgitte Skaarup

Approved by: 2007/11/6
Date

[redacted]
Principal Investigator

2 Quality Assurance statement

QUALITY ASSURANCE STATEMENT

Report:	LAB Scantox SP 387/TL1, 3-months toxicity study in rats Analysis of samples returned from Scantox
STUDY NUMBER	65860
REFERENCE NUMBER	20076021

The conduct of this study has been subject to appropriate inspections and the report has been reviewed according to the relevant Standard Operation Procedures of Novozymes A/S Quality Assurance..

Inspection/Audit	Dates of inspection	Dates of Audit Report signed by Principle Investigator	Dates of Audit Report signed by Management
Sample receipt and reg.	5 OCT 2007	7 NOV 2007	13 NOV 2007
Report	13 NOV 2007	15 NOV 2007	15 NOV 2007

16. Nov. 2007

Date

[redacted]

Quality Assurance

3. GLP Compliance statement

Ref. no. 20076021:

This investigation was conducted at the Process Support Laboratories, Enzyme Analytical Laboratory, Novozymes A/S, in compliance with OECD principles of Good Laboratory Practice, ENV/MC/CHEM (98) 17.

[redacted]

20071116

Date

[redacted] Principal Investigator

4 Purpose

The purpose of this investigation is to determine whether the enzyme activity Kilo Microbial Trypsin Unit/g (KMTU/g) in the dose solutions from week 1, 6 and 13 are approximately equal and to check if the activity of the 100% dose solutions complies relatively with the enzyme activity of the tox-batch.

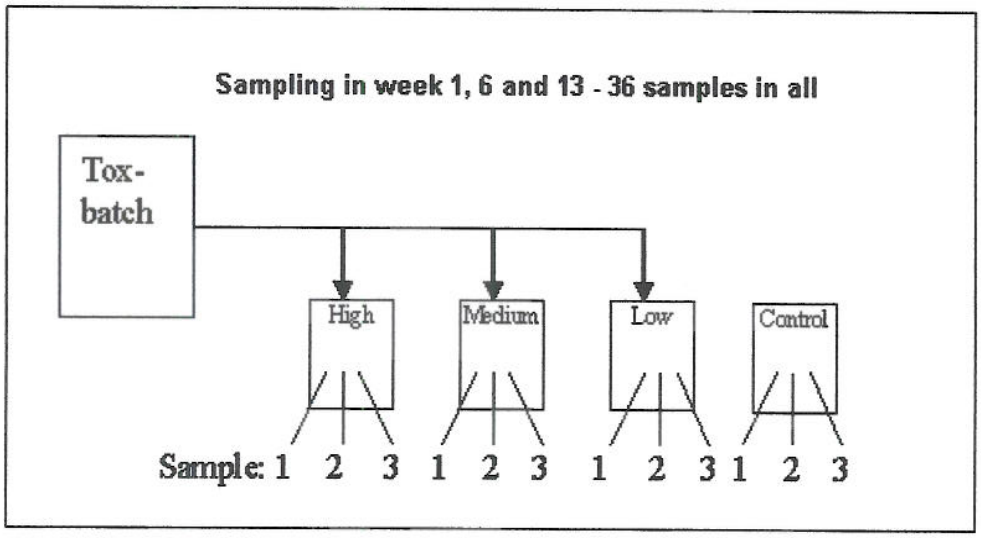
5 Sample Handling

Sample description

During the study 24 samples were taken out for analysis of activity:
There were four groups:

- High activity (approx. 100%)
- Medium activity (approx. 33%)
- Low activity (approx. 10%)
- Control group (approx. 0%)

In week 1, 6 and 13, three samples of 10 ml were taken from each of the groups and labelled "1", "2" and "3", as illustrated below.



First all samples labelled "1" were analysed. More details about the schedule for the analytical phase are given in the current version of PSL-SP-0107.01-D.

High activity (approx. 100%) contains:	124 KMTU/mL = 117 KMTU/g
Medium activity (approx. 33%) contains:	41 KMTU/mL = 39 KMTU/g
Low activity (approx. 10%) contains:	12 KMTU/mL = 12 KMTU/g
Control group (approx. 0%) contains:	0 KMTU/mL = 0 KMTU/g

Sample transportation and registration

Samples from LAB Scantox were sent directly to the department of Safety & Toxicology in Novozymes at 2007-10-22, where the samples were registered and stored frozen (-18°C) until transfer to EAL for analysis.

The transfer took place at 2007-10-22 and together with the samples were sheets with information about the sample identification and expected activity.

Reception of the samples, sample handling, sample storage and later disposal were documented in the data and results sheets.

Storage of samples for analysis

After registration in Enzyme Analytical Laboratory at 2007-10-22 the samples were stored frozen (-18°C) until analysis.

Sample defrost

The "1" samples were defrosted at room temperature at 2007-10-23.

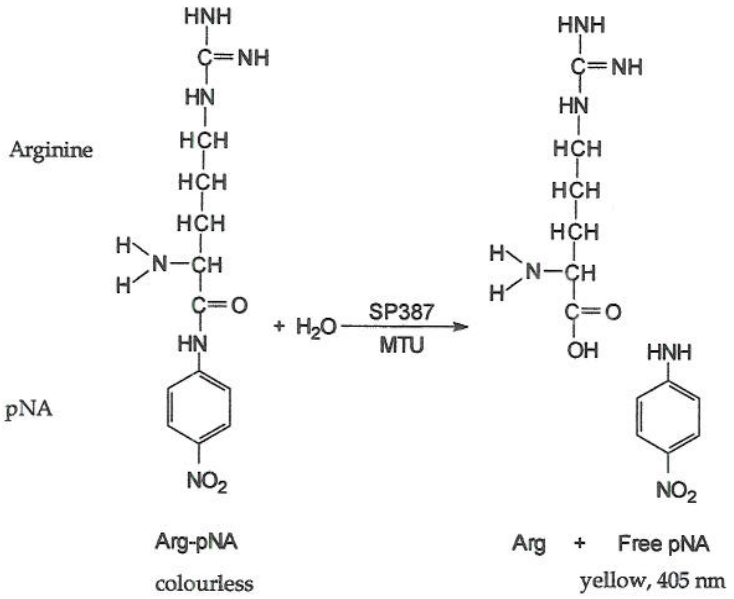
Date of analysis

Analysis of the samples no 1 was carried out 2007-10-23. It was not necessary to analyze samples labelled '2' and '3'.

6 Method

The analysis was performed according to PSL-SM-0706.01-D version 6.0 'Microbial Trypsin activity by Konelab (KMTU)' ("Mikrobiel Trypsin aktivitet målt på Konelab (KMTU)")

Microbial trypsin hydrolyses the chromophoric substrate Ac-Arg-p-nitro-anilide (Ac-Arg-pNA). The liberated pNA produces an absorption increase at 405 nm, which is proportional to enzyme activity. The reaction proceeds automatically in Konelab as shown below.



The samples are analysed as 2 weighings at 1 standard curve as specified for GLP samples in current version of PSL-SP-0598.01-D.

7 Deviation

None

8 Results and discussions

All samples from the high, medium, low and control groups were analysed.
Only the "1" samples were analysed.
The analytical results were evaluated according to the guidelines described in PSL-SP-0107.01-D, version 5.0. The evaluation includes a series of statistical test. Results from the tests, based on all data from analysis of samples marked 1 are given in table 1, 2 and 3.

Table 1. Mean activity per group and week for groups high, medium and low. Expected activities were 117; 39 and 12 KMTU/g, respectively.

Week	Group High	Group Medium	Group Low
1	118	45	13
6	134	47	14
13	123	44	14

Samples from the control group showed no enzyme activity.

The levels for all three dosage groups were found to be within the expected range for all weeks.

It was furthermore investigated if the activity for the High dosage group is approximately equal to the certified activity of the Tox-batch. Approximate 95% confidence intervals were calculated for the ratio between group High and the Tox-batch. If 1 is included in the interval, there is no significant difference between the certified activity and the activity of the dosing solution given to the group High. The results are shown in Table 2.

Table 2. 95% confidence interval for ratio between mean of group high and certified activity of Tox-batch (Group high/Tox-batch):

Analysis result for Tox-batch	**Number of standard curves for Tox-batch (K_{Tox})**	**Number of weighings per standard curve for Tox-batch (N_{Tox})**	**Mean of group High**	**Lower Limit**	**Upper Limit**	**Is there significant difference?**
117	2	2	125	1,00	1,14	Yes

The mean value of the high dose solution was found to differ significantly from the certified activity of the tox-batch.

For each of the three groups (high, medium and low), it was investigated if the activities for week 1 and 6 and 1 and 13 were approximately equal. Approximate 95% confidence intervals were calculated for the ratio between week 6 or 13 and 1. If 1 is included in the interval, the two weeks samples are assumed to have equal activities, otherwise not. The result of this test is shown in Table 3.

Table 3. Approximate 95% confidence intervals for ratios between activity in week 1 and 6 and 1 and 13, respectively. Reference: Week 1.

Group	Ratio between Week	Lower Limit	Upper Limit	Is there significant difference?
High	6/1	1,07	1,20	Yes
	13/1	0,99	1,10	No
Medium	6/1	0,99	1,11	No
	13/1	0,93	1,04	No
Low	6/1	0,98	1,10	No
	13/1	0,97	1,09	No

Except for the high group in week 6, there is no significant difference between weeks 6 and 13 relative to week 1 in all three groups.

9 Conclusion

The measured concentration of the dosing solutions expressed in enzyme activity units was found not to differ significantly from the expected content of test material formulations for all groups. The enzyme activity from week 13 in the "high" dosage groups was approximately equal to the certified tox batch activity. Apparently the 6 week high-dosage sample was significantly higher in activity relative to the activity in week 1. However, the overall average high dosage group activities were found to be elevated relative to the certified activity of the tox batch. The difference between week 1 and 6 in group high was 13,6% and as it resulted in a slightly higher exposure than expected, this should not have any impact on the study.

10 Archive

Investigation Plan, raw data or exact copies and the Investigation Report are archived in QM Central Archive Novozymes A/S.

Amended Report No 1

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Study No:	73488
Sponsor Ref No:	20116015
Date:	27 February 2014
Author:	[redacted]
Number of pages:	258
Sponsor:	Novozymes A/S Krogshøjvej 36 DK-2880 Bagsværd Denmark

Good Laboratory Practice Compliance Statement for Amended Report No 1

This Amended Report No 1 to "SP387/TL1 - A 25-Day Oral (Gavage) Toxicity Study in Rats" is prepared based on Amendment No 1 to Final Report. At Sponsor's request the changes described in Amendment No 1 to Final Report are incorporated in this Amended Report No 1, giving one complete and fully amended report. The changes had no relevance, impact or influence of the toxicological outcome or conclusion of the study.

This Amended Report No 1 "SP387/TL1 - A 25-Day Oral (Gavage) Toxicity Study in Rats" was prepared under my supervision and responsibility and is in compliance with the OECD Principles of Good Laboratory Practice (as revised in 1997), which are in conformity with other international GLP regulations.

Approved by [redacted] 27 February 2014

Date

Study Director
CiToxLAB Scantox A/S

Good Laboratory Practice Compliance Statement

The study described in this report "SP387/TL1 - A 25-Day Oral (Gavage) Toxicity Study in Rats" was conducted under my supervision and responsibility and is in compliance with the OECD Principles of Good Laboratory Practice (as revised in 1997), which are in conformity with other international GLP regulations.

The report is a complete and accurate account of the methods employed and the data obtained.

[redacted] 22 August 2011
Date

Study Director
LAB Research (Scantox)

Quality Assurance Statement for Amended Report No 1

Study number: 73488

Study title: SP387/TL1 – A 25-Day Oral (Gavage) Toxicity Study in Rats

An audit of the draft amended report no 1 and final amended report no 1 has been performed and reported to the Study Director (SD) and Test Facility Management (TFM).

Audit	Date of audit	Date of reporting to SD and TFM
Draft amended report no 1	24 and 25 February 2014	25 February 2014
Final amended report no 1	27 February 2014	27 February 2014

[redacted] 27 February 2014
Date

QA Auditor
CiToxLAB Scantox A/S

Quality Assurance Statement

Study number: 73488

Study title: SP387/TL1 – A 25-Day Oral (Gavage) Toxicity Study in Rats

An audit of the draft amendment and final amendment to Final Test Report has been performed and reported to the Study Director (SD) and Test Facility Management (TFM).

Audit	Date of audit	Date of reporting to SD and TFM
Draft amendment No. 1 to Final Test Report	27 January 2014	27 January 2014
Final amendment No. 1 to Final Test Report	27 January 2014	27 January 2014

[redacted] 27 January 2014
Date

QA Auditor
CiToxLAB Scantox A/S

Quality Assurance Statement for Final Report

Study No: 73488

Sponsor Ref No: 20116015

Study title: SP387/TL1 - A 25-Day Oral (Gavage) Toxicity Study in Rats

An audit of the study plan has been performed and reported to the Study Director (SD) and Test Facility Management (TFM).

Audit	**Date of audit**	**Date of reporting to SD and TFM**
Final study plan	09 March 2011	09 March 2011
Amendment 1	14 March-2011	14 March 2011
Amendment 2	18 March 2011	18 March 2011
Amendment 3	04 April 2011	04 April 2011
Amendment 4	07 April 2011	07 April 2011
Amendment 5	Amendment does not exist	
Amendment 6	12 April 2011	12 April 2011
Amendment 7	10 May 2011	10 May 2011

This study performed by LAB Research (Scantox) has been inspected by the Quality Assurance Unit at LAB Research (Scantox) in compliance with OECD Principles of Good Laboratory Practice. Inspection reports have been provided to the Study Director and to Test Facility Management according to the table below. Process and facility inspections are performed on a regular basis in accordance with LAB Research (Scantox) procedures. Study-based and the most recent process based inspection dates are stated in the table below.

Inspection type	Inspection item(s)	Inspection date(s)	Date of reporting to SD and TFM
Study-based	Blood sampling	11 April 2011	11 April 2011
	Necropsy	11 April 2011	11 April 2101
	Raw data	17 March 2011 11 April 2011	17 March 2011 11 April 2011
	Housing of animals	17 March 2011	17 March 2011
	Observation of animals, documentation	17 March 2011	17 March 2011
	Dose formulation preparation	17 March 2011	17 March 2011
	Registration and storage of test item	17 March 2011	17 March 2011
	Dosing	17 March 2011	17 March 2011
	Weekly observation	30 March 2011	30 March 2011
	Observation of animals	30 March 2011	30 March 2011
Process-based	Arrival and allocation of animals	10 March 2011	10 March 2011
	Re-allocation, weighing of animal, diet and water	24 January 2011 07 April 2011	24 January 2011 07April 2011
	Sample dispatch	11 January 2011	13 January 2011
	Clinical chemistry analysis	18 February 2011	28 February 2011
	Haematology analysis	18 February 2011	28 February 2011
	Sampling of urine and urinalysis	03 February 2011	04 February 2011
	Histology and pathology	15 March 2011	15 March 2011
	Ophthalmoscopy	15 March 2011	15 March 2011

The study report has been audited. The methods, procedures and observations as outlined in the study plan and in LAB Research (Scantox) Standard Operating Procedures have been accurately described. The results and data presented in the study report accurately reflect the raw data generated during the study.

Date of audit of draft Report	Date of reporting to SD and TFM
04 ,12 ,13 ,14, 19 & 20 July 2011	20 July 2011
Date of audit of Final Report	**No report**
22 August 2011	

Analysis of dose formulation of the study performed by Novozymes A/S has been inspected and the results audited by their Quality Assurance Unit and a test side QA statement have been issued.

[redacted] 22 August 2011

QA Auditor
LAB Research (Scantox)

Date

Personnel involved in the study

Study Director:
From study start to termination of study: [redacted]

Study Director
After termination of study: [redacted]

[redacted] [redacted], Novozymes A/S

Sponsor Monitor: [redacted], Novozymes A/S

Table of Contents

Table of Figure

Table of Tables

1 Abbreviations

KMTU = Kilo Microbiel Trypsin Unit

NOAEL = No Observed Adverse Effect Level

TOS = Total Organic Solids

2 Summary

The objective of this study, conducted at LAB Research (Scantox), was to establish a higher NOAEL for the microbial trypsin analogue SP 387/TL1 than obtained in a previous 13 weeks rat toxicity study (Lab Research (Scantox) Study No 65860) in which no toxicity occurred even at the highest dose level. The rats were treated daily by oral gavage for 25 days. The dosing volume in this study was increased from 5 to 10 mL/kg/day and the enzyme activity of the toxbatch was increased by a factor 3 from 117 KMTU/g to 340 KMTU/g compard to the previous 13-weeks study.

The study was conducted in 20 male and 20 female SPF Sprague Dawley rats of the Ntac:SD strain, in a parallel group design with 4 groups of 10 rats. The rats received daily oral treatment with SP387/TL1 for 25 days at dose levels of 0 (vehicle control = tap water), 360, 1190 and 3605 mg Total Organic Solids (TOS)/kg bw/day for Groups 1, 2, 3 and 4, respectively (corresponding to 401, 1322 and 4005 KMTU/kg bw/day).

Clinical signs of ill health and behavioural changes were recorded daily including a more detailed observation of physical appearance once weekly. A functional observation battery consisting of an open field test and stimuli-induced tests was performed at termination.

Body weight, food consumption and water consumption were recoded on a regular basis. Ophthalmoscopy was performed before start and before termination of treatment. Blood and urine samples were collected from all animals before termination of treatment in Week 13 for evaluation of clinical chemistry (blood and urine) and haematology (blood) parameters. A macroscopic evaluation was performed on all animals. Selected tissues and organs were fixed, trimmed and subjected to microscopic examination.

Dose formulation analysis results showed that no activity above the detection limit was found for the control group, whereas the results of the enzyme activity for Groups 2-4 showed that the dosing formulations did not differ significantly from the expected values for all groups.

No treatment related clinical signs were recorded. One control animal (No 7, female) was killed on Day 23 due to adverse clinical signs and weight loss, caused by a mis-dosing with the gavage tube.

A slight tendency towards a reduction in food intake, body weight gain and increased water intake in the high dose group were observed. These findings indicate that the highest dose (3605 mg TOS/kg bw) of enzyme SP387/TL1 might not be palatable for the rat.

No treatment related findings were recorded at the ophthalmoscopic examination or in the functional observation battery and stimuli induced tests.

An increased serum urea level was observed as well as a lowering of pH in urine in the high dose females, which could be an effect of the increased protein intake from the test article and thereby increased protein catabolism. This was considered not to be of toxicological importance.

The test item did not have any treatment related effects on the haematology, coagulation parameters or on the urine microscopy.

At necropsy, at the organ weight analysis and at the histopathological examination, no treatment related findings were observed.

In conclusion, daily administration by oral gavage of trypsin analogue SP387/TL1 to Sprague Dawley rats for 25 days at dosages of 0, 360, 1190 and 3605 mg total organic solids (TOS)/kg bw/day did not cause any treatment related toxicological effects.

Consequently, in this study the NOAEL (No Observed Adverse Effect Level) was 3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day).

3 Introduction

The objective of the present study was to establish a higher NOAEL than obtained in a previous 13 weeks rat toxicity study (Lab Research (Scantox) Study No 65860), in which no toxicity was observed even at the highest dose level and the true NOAEL could therefore not be defined. In order to increase the dose level administered in this study the dosing volume was increased from 5 to 10 mL/kg/day and the enzyme activity in the toxbatch was increased by a factor 3 from 117 KMTU/g to 340 KMTU/g compared to the previous 13 weeks rat study.

The study was in accordance with the OECD Guideline 407, adopted on 03 October 2008.

The rat was selected as the test model because of its well accepted suitability in this type of study. Oral treatment (gavage) was chosen in order to comply with the intended human route of administration. The doses were selected by the Sponsor. The study serves as a bridging study to a previously conducted 13-weeks oral toxicity study in rats (Study No 65860).

This study was conducted at LAB Research (Scantox), Hestehavevej 36A, Ejby, DK-4623 Lille Skensved, Denmark according to:

Study plan	dated	09 March 2011
Amendment No 1	dated	11 March 2011
Amendment No 2	dated	17 March 2011
Amendment No 3	dated	31 March 2011
Amendment No 4	dated	06 April 2011
Amendment No 5	does not exist	
Amendment No 6	dated	08 April 2011
Amendment No 7	dated	09 May 2011

The animals arrived on 10 March 2011. Treatment started on 17 March 2011. The in-life phase ended on 11 April 2011.

This report describes the procedures used and the results obtained.

4 Materials and methods

4.1 Test item and vehicle

The test item, SP 387/TL1 (batch PPF 32126, expiry date 11 February 2021), was supplied by the Sponsor and used within the stability and expiry dates.

Test item characterisation for the batch (Documentation of test material and Stability memo) are included as Appendix I and listed below:

Batch No:	PPF 32126
Host organism:	Fusarium venenatum
Physcial form/colour:	Brown liquid at room temperature
E.C.:	3.4.21.4

Activity:	340 KMTU/g
Water (KF):	62.5 % w/w
Dry matter:	37.5 % w/w
Ash (600°C):	6.9 % w/w
Total Organic Solids (TOS):	30.6 % w/w
Specific gravity (g/ml):	1.178 g/ml
pH:	6.1
Total viable counts/g:	100

The test item was stored in a freezer (-18°C).

Remaining test item was discarded after finalisation of the dose formulation report.

The vehicle for the preparation was tap water.

4.2 Animals

The study was performed in 20 male and 20 female SPF Sprague Dawley rats of the Ntac:SD strain from Taconic Europe A/S, Ejby, Denmark. At the start of the acclimatisation period, the rats were approximately 5 weeks old and their body weights were within a range of 128-157 gram for males and 123-141 gram for females. Ten (10) extra animals (5 of each sex) were available until completion of the acclimatisation period for replacement purposes.

An acclimatisation period of 7 days was allowed in order to reject animals in poor condition or at the extremes of the weight range.

4.3 Housing

The study took place in animal room No 117 provided with filtered air at a temperature of 21°C ±3°C and relative humidity of 55% ±15%. No significant deviations from these limits occurred. The temperature and relative humidity in the animal room were recorded hourly during the study and the records are retained.

The ventilation system has been designed to give 10 air changes per hour. The room was illuminated to give a cycle of 12 hours light and 12 hours darkness. Light was on from 06:00 h to 18:00 h.

The rats were kept in transparent polycarbonate cages (floor area: 1500 cm² - Height 21 cm) with two to three in each cage, males and females separated. The cages were cleaned and the bedding changed at least once per week.

Before arrival of the animals, the animal room was cleaned and disinfected.

4.4 Bedding

The bedding was softwood sawdust "Jeluxyl" from Jelu Werk GmbH, Josef Ehrler GmbH & Co KG, Ludwigsmühle, D-73494 Rosenberg, Germany. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis are retained.

4.5 Environmental enrichment

For environmental enrichment, the animals were offered a supply of Aspen Wood Wool from Tapvei Oy, FIN-73620 Kortteinen, Finland, at each change of bedding. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis are retained.

Furthermore, an autoclaved brick of wood from Tapvei Oy, FIN-73620 Kortteinen, Finland, was provided to each cage. Analyses for relevant possible contaminants were performed regularly. Certificates of analysis are retained.

Each cage also contained a red transparent Rat House (Noryl, Tecniplast) from Tecniplast Gazzada S.a.r.l., 21020 Buguggiate -Va, Italy. The house allowed the animals to show a wide range of natural behaviour.

4.6 Diet

A complete pelleted rodent diet "Altromin 1314 Fortified" (for growing animals) was available *ad libitum*. Altromin was supplied by Altromin Gesellschaft für Tierernährung mbH, D-32791 Lage, Germany. Analyses for major nutritive components and relevant possible contaminants are performed regularly. Certificates of analysis are retained.

4.7 Drinking water

The animals had free access to bottles with domestic quality drinking water acidified with hydrochloric acid to pH 2.5 in order to prevent microbial growth. Analyses for relevant possible contaminants were performed regularly on the drinking water prior to acidification. Certificates of analysis are retained.

4.8 Animal randomisation and allocation

On the day of arrival, the animals were allocated randomly to 4 groups and a group of extra animals, using a randomisation scheme.

Prior to commencement of treatment, the animals were re-allocated in order to reduce inter-group mean body weight differences. Data available from pre-treatment observations, clinical signs and laboratory investigations was taken into account when re-allocating animals.

On Day 5 of the study, the extra animals were allocated to LAB Research (Scantox) stock, after which they were no longer part of this study.

4.9 Animal and cage identification

Each animal was identified by punched ear marks.

Each cage was identified by a colour coded card containing sex, study, group, cage and animal number.

4.10 Treatment

The groups, dose levels, animal numbers and colour codes were as follows:

Table 1 Treatment schedule

Group	Dose*	Enzyme activity	Dose	Animal Nos		Colour code
	mg TOS/kg bw (%, v/v)	KMTU/g	KMTU/kg bw	Male	Female	
1	0 (0%)	0	0	1-5	6-10	White
2	360 (10%)	34	401	11-15	16-20	Blue
3	1190 (33%)	112	1322	21-25	26-30	Green
4	3605 (100%)	340	4005	31-35	36-37, 39-40, 138	Red

*Material as supplied. mg TOS/kg bw = ml Test Item/kg bw x specific gravity, g/ml x TOS, %w/w x 1000.

- The daily dose was given by oral treatment (gavage) according to the most recent body weight data.
- Treatment was performed daily for 25 days and until the day before necropsy.
- Dose volume was 10 ml/kg body weight.
- Dose formulations for Groups 2-4 were kept on a magnetic stirrer (gentle stirring) at least 10 minutes before start of treatment and during treatment.
- The tubes for gavage were wiped with a water wetted cloth between each dosing.
- The first day of treatment was designated Day 1.

4.11 Dose formulation preparation

The vehicle for preparation of the dose formulation was tap water.

The dose formulations were prepared daily by diluting the test item in tap water. The test item was kept frozen at approximately -18°C until use. Before use, each original bottle of the test item was thawed to divide the contents into portions suitable for daily preparation of dose formulations and frozen again. The test item (original bottles or portions) was thawed overnight at +2 to +8°C. Before dividing the contents of the original bottles into portions and before preparation of the dose formulations, the test item was stirred gently for at least 10 minutes on a magnetic stirrer. As a deviation from the study plan, the test item was at one occasion thawed at room temperature in the morning and thereafter used for dosing later on (standing approximately 5 hours at room temperature). As the test item was stable for at least 48 hours at room temperature, this deviation had no impact on the outcome of the study.

Dose formulations were prepared as follows:

Group 1: Vehicle (tap water).
Group 2: 1 part test item diluted in 9 parts vehicle.
Group 3: 1 part test item diluted in 2.03 parts vehicle.
Group 4: Undiluted test item.

According to the Sponsor, the prepared dose formulations were stable for at least 48 hours when stored at +2 to +8ºC or at room temperature in the dark (see Appendix I). The dose formulations were kept on a magnetic stirrer at least 10 minutes before dosing and during dosing. Remaining dose formulations were mostly used the following day.

All preparations were prepared using glassware. Undiluted test item were transferred to LAB Research (Scantox) glass containers to facilitate the administration process to the animals.

4.12 Control of dose preparations and usage

Before preparation of dose formulation, the dose calculations were double checked.

Each step of the dose formulation preparation was documented. The weight of dose formulation for each group before and after dosing was documented. After dosing, the amount of dose formulation used for each group was compared with the predicted daily usage. As a deviation from the study plan the dose formulations for groups 1-4 were not weighed on a single occasion before start of dosing and therefore no comparison could be made between practical and theoretical usage. As this only happened on a single occasion and as there were no discrepancy between practical and theoretical usage all other days it was considered not to have any impact on the outcome of the study.

4.13 Analysis of dose formulations

During Week 1, two (2) sets of triplicate (3) samples (6 samples in total) each of 10 ml of the four dose formulations were collected in a Nunc tube and stored frozen at approximately −18°C. One (1) set of triplicate samples were stored at LAB Research (Scantox) until the PI report was finalised and thereafter discarded. One (1) set of triplicate samples was sent to the Sponsor Monitor and then transferred to the Principal Investigator at Novozymes A/S for analysis.

Table 2 Samples of dose formulations

Sampling occasion	Batch No	Sampling volume	Sample Container	Nominal concentration (%)	Number of samples*	Shipping date
Week 1	PPF 32126	10 mL	Nunc tube	0	2 sets of 3 (total 6)	Nos 1-3: End of in life phase
				10	2 sets of 3 (total 6)	
				33	2 sets of 3 (total 6)	
				100	2 sets of 3 (total 6)§	
Total					2x12 samples	

* For each sampling occasion the Nunc tubes should be labelled 1-6. § As a deviation from the study plan, sample No 6 only contained approximately 9.5 ml as no more stock solution was left in the already thawed flask. This was considered not to have any impact on the outcome of the study as sample Nos 4-6 were not analysed.

Total number of samples from whole study: 2 sets of 12, totally 24.

The final results are included as Appendix II.

4.14 Clinical signs

4.14.1 Daily observations

All visible signs of ill health and any behavioural changes were recorded daily. Any deviation from normal was recorded with respect to time of onset, duration and intensity.

4.14.2 Weekly observations

Beginning prior to start of treatment, detailed clinical observations were performed outside the home cage once per week at similar times. Signs to be recorded included, but were not limited to: changes in skin/fur, eyes, mucous membranes, occurrence of secretions and excretions and autonomic activity (*e.g.*, lacrimation, piloerection, pupil size, and unusual respiratory pattern). Changes in gait, posture and response to handling as well as the presence of clonic or tonic movements, stereotypies (*e.g.* excessive grooming, repetitive circling) or bizarre behaviour (*e.g.* self-mutilation, walking backwards) were also recorded.

4.14.3 Open field and stimuli-induced tests

During the last week of the study, all animals were examined with respect to reactivity to different types of stimuli (*e.g.* auditory, visual, tactile), grip strength and motor activity (open field test).

4.15 Mortality

One animal was killed for ethical reasons after start of treatment, the animal was necropsied and subjected to the procedures described in the paragraph Terminal observations. Blood samples for clinical pathology were taken.

Any decision regarding killing for ethical reasons was taken by the Study Director and the Sponsor Monitor was notified immediately.

4.16 Body weight

Starting on arrival, the animals were weighed once weekly, including Day −1 which was the body weight used for re-allocation. During the dosing period, the animals were weighed on the last day of each study week (Days 7, 14, etc) and this weight was used for calculation of the doses for the following study weeks. Moreover, the animals were weighed on Day 1 and at necropsy.

Body weight gain was calculated.

4.17 Food consumption

From Day −1, the food consumption was recorded weekly for each cage at a 7−day interval. As a deviation from the study plan, food consumption was in error not registered for animal Nos 8-10 (Group 1, females) on Day 7 (see Table 19). Food consumption could therefore only be calculated by adding week 1 and 2. This was considered not to have any impact on the outcome of the study.

Accumulated food consumption was calculated.

4.18 Water consumption

From Day -1, the water consumption was recorded twice weekly for each cage.

Accumulated water consumption was calculated.

4.19 Ophthalmoscopy

Before start of treatment, ophthalmoscopy was performed on all animals. Before termination of treatment, all animals in Groups 1 and 4 were re-examined. The animals in Groups 2 and 3 were not re-examined as no treatment related findings were observed in the high dose group.

After application of tropicamide 1% solution (Mydriacyl, Alcon Universal Ltd., USA), both eyes were examined with an indirect ophthalmoscope and a portable slit-lamp microscope.

4.20 Clinical pathology

Before termination of treatment, blood and urine samples will be taken from all animals. Blood samples will be drawn from the orbital venous plexus during CO_2/O_2 anaesthesia.

For haematology, at least 300 µl K3 EDTA stabilised blood was taken. From this sample, a smear was prepared and stained with May-Grünwald and Giemsa for manual differential leucocyte count. As the results of the ABX Pentra DX120SPS was uncertain and as not enough test sample was available for several tests it was decided to with draw these unreliable results and instead all the smears were read manually (see Table 3). The white blood cell number and platelet count were therefore not reported. As a deviation from the study plan the blood smears from Animal Nos 30 and 40 (Group 3 and 4 females, respectively) were missing and therefore no results were obtained. This deviation was considered not to have any impact on the outcome of the study as no difference were observed between treated and control animals on these parameters.

For the coagulation tests, 500 µl citrate stabilised blood was taken.

Approximately 750 µl blood was taken for clinical chemistry in plain glass tubes for serum.

Urine samples were collected overnight while the animals were placed individually in metabolism cages. During the sampling period, only water was available. The volume of urine samples was recorded and up to 10 ml was saved for analysis.

At necropsy, a bone marrow smear was taken from the femur of all animals (see the table under the heading Organs and tissues). The smears were fixed and stained with May-Grünwald and Giemsa stain. These smears will not be analysed and they will therefor be discarded upon finalisation of the study.

The parameters, methods and units for the laboratory investigations are stated below:

Table 3 Haematology and coagulation parameters

Parameter	Method/Equipment	Unit
Haemoglobin (Hb)	Direct measurement/ABX Pentra DX120SPS	mmol/l
Red blood cell count (RBC)	Direct measurement/ABX Pentra DX120SPS	10^{12}/l
Reticulocyte count (RETIC)	Direct measurement/ABX Pentra DX120SPS	% and 10^{12}/l
Haematocrit (HT)	Direct measurement/ABX Pentra DX120SPS	ml/100 ml
Mean cell volume (MCV)	Calculated/ABX Pentra DX120SPS	fl
Mean cell haemoglobin (MCH)	Calculated/ABX Pentra DX120SPS	fmol
Mean cell haemoglobin concentration (MCHC)	Calculated/ABX Pentra DX120SPS	mmol/l
White blood cell count (WBC)	Direct measurement/ABX Pentra DX120SPS[§]	10^{9}/l
Differential leucocyte count (NEUTRO, LYMPHO, EOS, BASO, MONO)	Manually (see paragraph 4.20)	%
Platelet count (Plt)	Direct measurement/ABX Pentra DX120SPS[§]	10^{9}/l
Activated partial thromboplastin time (APTT)	IL Test™/ACL™ (*)	sec.
Prothrombin time (Pt)	IL Test™/ACL™(*)	sec.
Fibrinogen (Fib)	IL Test™/ACL™(*)	g/l

(* Instrumentation Laboratories, Automated Coagulation Laboratory, [§] Unreliable results were obtained and results were therefore withdrawn (see paragraph 4.20))

Table 4 Clinical chemistry

Parameter	Method	Unit
Alanine aminotransferase (ALAT)	Hitachi 917	µkat/l
Aspartate aminotransferase (ASAT)	Hitachi 917	µkat/l
Alkaline phosphatase (ALKPH)	Hitachi 917	µkat/l
Bilirubin (total) (TBILI)	Hitachi 917	µmol/l
Gamma-glutamyl transferase (GGT)	Hitachi 917	µkat/l
Cholesterol (CHOL)	Hitachi 917	mmol/l
Triglycerides (TRIG)	Hitachi 917	mmol/l
Carbamide (UREA)	Hitachi 917	mmol/l
Creatinine (CREAT)	Hitachi 917	µmol/l
Glucose (GLUC)	Hitachi 917	mmol/l
Sodium (Na)	Ion selective electrode/Hitachi 917	mmol/l
Potassium (K)	Ion selective electrode/Hitachi 917	mmol/l
Calcium (Ca)	Hitachi 917	mmol/l
Magnesium (Mg)	Hitachi 917	mmol/l
Inorganic phosphorus (P)	Hitachi 917	mmol/l
Chloride (Cl)	Ion selective electrode/Hitachi 917	mmol/l
Protein (total) (PROTEIN)	Hitachi 917	g/l
Albumin (ALB)	Hitachi 917	g/l
Globulin	Calculated	g/l
Albumin/Globulin (ALB/G) ratio	Calculated	No unit

Table 5 Urinalysis

Parameter	Method/Equipment	Unit/Range
Volume		ml
Specific gravity (SG)	Ames Multistix 10SG/Clinitek 500	No unit
pH	Ames Multistix 10SG/Clinitek 500	No unit
Colour (COLOUR)	Visual examination	No unit
Protein (PROTEIN)	Ames Multistix 10SG/Clinitek 500	g/l
Leucocytes (LEUC)	Ames Multistix 10SG/Clinitek 500	Cells/µl
Nitrite (NITRITE)	Ames Multistix 10SG/Clinitek 500	No unit
Blood (BLOOD)	Ames Multistix 10SG/Clinitek 500	Erythrocytes/µl
Glucose (GLUCOSE)	Ames Multistix 10SG/Clinitek 500	mmol/l
Ketones (KETONES)	Ames Multistix 10SG/Clinitek 500	mmol/l
Bilirubin (BILI)	Ames Multistix 10SG/Clinitek 500	No unit
Urobilinogen (UROBIL)	Ames Multistix 10SG/Clinitek 500	µmol/l

Microscopic examination of spun sediment was performed. A 40 x magnification was used. For the various findings, the incidence was described in the following way:

-	"no trace"	=	no trace in 2-3 visual fields
(+)	"trace"	=	a few in 2-3 visual fields
+	"slight"	=	a few in each visual field
++	"moderate"	=	several in each visual field
+++	"marked"	=	numerous in each visual field

The elements examined were: Erythrocytes, leucocytes, epithelial cells, crystals, urates, hyaline and granular casts and bacteria.

4.21 Terminal observations

On the day of necropsy, the animals were weighed, examined externally and placed in a chamber with atmospheric air upon which a mixture of 70% CO_2 and 30% O_2 was applied at a steadily increasing concentration for euthanasia. The animals were monitored closely while in the chamber. Death was confirmed and the animals were bled before proceeding. The animals were necropsied in the sequence of one or two animals/group.

4.21.1 Necropsy

A macroscopic examination was performed after opening the cranial, thoracic and abdominal cavities and by observing the appearance of the organs and tissues *in situ*. Any macroscopic change was recorded with details of the location, colour, shape and size in the PathData©System V6.2a2 computer system.

4.21.2 Organs and tissues

Either whole organs or selected samples of the indicated organs and tissues were subjected to the procedures itemised in the list given below. Weights were recorded in the PathData©System V6.2a2 computer system.

Paired organs were weighed together. The relative organ weights, i.e. the organ weight as a percentage of the body weight and organ weight as a percentage of the brain weight, were calculated for each animal.

All tissues were initially fixed in phosphate buffered neutral 4% formaldehyde with the exception of the eyes and testes (Modified Davidsons's fixative). The fixative for long term preservation was phosphate buffered neutral 4% formaldehyde for all tissues. The lungs were infused with fixative at necropsy.

Table 6 Organs and tissues

Organs and tissues	Weigh	Fix	Micro	Organs and tissues	Weigh	Fix	Micro
Abnormalities (gross lesions)		x	x	Pituitary		x	x
Adrenals	x	x	x	Prostate	x	x	x
Aorta (thoracic)		x	x	Salivary glands (right parotid, sublingual and submandibular)		x	x
Brain	x	x	x	Sciatic nerve		x	x
Bone marrow smear		x		Seminal vesicles	x	x	x
Bones (right femur)		x	x	Skeletal muscle		x	x
Epididymides	x	x	x	Skin		x	x
Eyes with lens/optic nerve		x	x	Spinal cord (cervical, thoracic, lumbar)		x	x
Heart	x	x	x	Spleen	x	x	x
Intestine small (duodenum, jejunum, ileum)		x	x	Sternum (for bone marrow)		x	x
Intestine large (caecum, colon, rectum)		x	x	Stomach (glandular, non glandular)		x	x
Joint (knee)		x	x	Testes	x	x	x
Kidneys	x	x	x	Thymus	x	x	x
Larynx		x	x	Thyroids (incl. parathyroid)		x	x
Liver	x	x	x	Tongue		x	x
Lungs		x	x	Trachea		x	x
Lymph nodes (mesenteric and right mandibular)		x	x	Ureters		x	x
Mammary gland		x	x	Urinary bladder		x	x
Oesophagus		x	x	Uterus (horn, cervix and oviducts)	x	x	x
Ovaries	x	x	x	Vagina		x	x
Pancreas		x	x				

4.21.3 Processing and microscopic examination

After fixation, the organs and tissues sampled for microscopic examination were trimmed and representative specimens were taken for histological processing. The specimens were embedded in paraffin and cut at a nominal thickness of approximately 5 µm, stained with haematoxylin and eosin and examined under a light microscope. Paired organs were processed together.

All pathological findings were entered directly onto the PathData©System V6.2a2 computer system.

Histological alterations were graded on a 5-grade system:

Grade 1 - Minimal/Very few/Very small
Grade 2 - Slight/Few/Small
Grade 3 - Moderate/Moderate number/Moderate size
Grade 4 - Marked/Many/Large
Grade 5 - Massive/Extensive number/Extensive size
Present - Finding present/Severity not scored

The following organs and tissues were examined microscopically:

- All organs and tissues from all control (Group 1) and high dose animals (Group 4).
- All organs and tissues from the animal killed after initiation of treatment.
- All gross lesions from all animals.

Submandibular lymph nodes with macroscopically visible signs of accumulation of blood due to blood sampling from the ipsilateral orbital venous plexus were fixed but not processed histologically.

Tissues not examined microscopically were stored at LAB Research (Scantox) held in fixative.

4.21.4 Peer review

A peer review by LAB Research (Scantox) peer reviewing pathologist was performed on selected slides. Diagnostic discrepancies were resolved by discussion.

4.22 Statistics

Data was processed to give group mean values and standard deviations where appropriate.

Thereafter each continuous variable was tested for homogeneity of variance with Levene's test. If the variance was homogeneous, analysis of variance was carried out for the variable. If any significant differences were detected, possible inter-group differences were assessed with Dunnett's test (comparing treated groups with a control group). If the variance was heterogeneous, each variable was tested for normality by the Shapiro-Wilk method. In case of

normal distribution, possible inter-group differences were identified with Student's t-test. Otherwise the possible inter-group differences were assessed by Kruskal-Wallis's test.

Ranked type of urinalysis data was analysed with Wilcoxon Rank-Sum test.

For all tests, the level of significance was defined as $p<0.05$.

The statistical analyses were made with SAS® procedures (version 8.2) described in "SAS/STAT® User's Guide, SAS OnlineDoc®, 1999, SAS Institute Inc., Cary, North Carolina 27513, USA.

4.23 Archives

4.23.1 LAB Research (Scantox)

For a period of 10 years, LAB Research (Scantox) will be responsible for the archiving of the following materials relating to the study:

Study plan, study plan amendments and correspondence, test material receipts, sample of test item, animal records, all original data, wet tissues, blocks and slides and final report.

After end of the archiving period, the original report will be transferred to external archiving.

At the end of the storage period, LAB Research (Scantox) will contact the Sponsor for instructions whether the material should be transferred, retained or destroyed. Implementation of such instructions will be at additional costs to the Sponsor.

4.23.2 Novozymes A/S (Analysis of dose formulation)

For a period of 10 years, the raw data pertaining to formulation analysis, shipping documents, correspondence and the analytical report will be archived at Novozymes A/S. It is the responsibility of the Principal Investigator (PI) to notify the Study Director when the PI Report is archived. At the end of the storage period, Novozymes A/S will decide whether the material should be transferred, retained or destroyed.

5 Results

5.1 Dose formulation analysis

Appendix II

The enzyme activity of microbial trypsin, SP387/TL1 (KMTU/g) measured in Week 1 for the three treated groups 2-4 did not differ significantly from the expected value. The activity of the 100% dose solution (Group 4) complied with the enzyme activity of the Tox-batch and absence of activity in the control samples (Group 1) was shown.

5.2 Mortality

Individual findings: Table 15

No treatment related mortalities were observed.

One (1) control animal (No 7, female) was killed on Day 23 due to adverse clinical signs and weight loss due to a mis-dosing with the gavage tube. In connection with dosing of the animal the day before (on Day 22), blood was observed on the gavage tube, whereafter the animal laid down with slight piloerection. It recovered during handling and was therefore thought to recover fully. A blood sample for clinical pathology was taken. On Day 23 in the morning, the animal had forced respiration, dark and pinched eyes, it was moving slowly and had lost weight, it was considered moribund and sent for necropsy. The macroscopic and microscopic observations showed that mis-dosing into the thoracic cavity had occured.

5.3 Clinical signs

Individual findings: Table 15

No treatment related adverse clinical signs were observed.

A few animals were observed with hair loss, small wounds and secretion around the eyes, which all are common observations in untreated Sprague-Dawley rats and therefore considered to be incidental.

5.4 Open field test

Group mean values: Table 7
Individual values: Table 16

No treatment related adverse effects were observed at the open field test.

Both sexes had increased total corner visits in Groups 2 and 4, and Groups 2 and 4 females also spent more time in the periphery compared to the control animals. However, as this is the normal behaviour of rats to seek the periphery and corners and as no dose relationship was observed, this finding was considered incidental and not of toxicological importance.

5.5 Stimuli induced tests

Group mean values: Table 8
Individual values: Table 17

No treatment related effects were observed at the stimuli-induced tests.

5.6 Body weight

Graph: Figure 1

Group mean values: Table 9
Individual values: Table 18

There was a slight tendency (not statistically significant) towards a decrease in body weight gain for Group 4 females from Days 21 to 26 compared to the control animals.

5.7 Food consumption

Values per animal: Table 19

A slight decrease in food consumption (not statistically significant) was observed in Group 4 females compared to the control animals.

5.8 Water consumption

Values per animal: Table 20

A slight increase in water consumption (not statistically significant) was observed in Group 4 males compared to the control animals.

5.9 Ophthalmoscopy

Individual findings: Table 21

No treatment related findings were observed.

A small scratch in cornea observed in one Group 4 male was considered incidental and slight central lenticular opacities observed in one Group 4 female were considered a normal background finding in rats and therefore considered not to be treatment-related.

5.10 Haematology

Group mean values: Table 10
Individual values: Table 22

No treatment related effects were observed on the haematology parameters.

A slightly increased activated partial thromboplastin time (APTT) was observed in Group 4 males and a significantly lower mean cell volume (MCV) was observed in Group 4 females compared to the control animals. In the absence of other supporting haematological findings in this study and since the findings were within historical data (see Appendix IV), these changes were considered not to be of toxicological importance.

5.11 Clinical chemistry

Group mean values: Table 11
Individual values: Table 23

A slight decrease in serum inorganic phosphorous (P) and total protein was observed in Group 4 males compared to Group 1 males (control). However, these findings were within historical control data (see Appendix IV) and considered not to be treatment-related.

A significant increase in serum alkaline phosphatase (ALKPH) and Chloride (Cl) was observed for Group 2 and 4 females, respectively. However, no dose relationship was observed, and these findings were considered to be incidental.

Furthermore, a statistically significant dose dependent increase in serum urea was observed for females compared to the control animals, indicating an effect of treatment on urea content in blood. However, increased levels of serum urea are not an unexpected finding following catabolism of the relative large amount of protein in the test article administered repeatedly during the study. Furthermore, as all values were within historical data (see Appendix IV), this finding was considered not to be of toxicological importance.

5.12 Urinalysis

Group mean values: Table 12
Individual values: Table 24

A significant increase in urine volume was observed in Group 3 males compared to the control animals, and the urine volume in Groups 2 and 4 was also slightly increased. Furthermore, there was a significant lowering of urine pH in Group 3 males, which was also reflected in a slight lowering of pH in Group 4 males and females. These values are considered to be related to metabolism and secretion of the test item rather than of toxicological significance.

5.13 Urine microscopy

Group mean values: Table 13
Individual values: Table 25

No treatment related effects were observed at the urine microscopy.

5.14 Organ weight

Group mean values: Table 14
Individual values: Table 26

No treatment related effects were observed on the organ weigths.

A slight increase in the heart weight and testes was observed in the treated males (mostly Group 4). These findings were not significantly high and were within historical data (see Appendix IV) and therefore considered to be incidental.

5.15 Macroscopic examination

Appendix III

Female No 7 was sacrificed moribund on Day 23 after a suspected mis-dosing event. At necropsy, the animal was in a generally poor condition. Fluid was present in the chest cavity, the thymus was enlarged and oedematous and in the lungs, disseminated red discolouration, many grey foci and oedema were recorded. These findings were most likely due to a mis-dosing.

The remaining findings observed at necropsy were considered unremarkable.

5.16 Microscopic examination

Appendix III

No treatment related microscopic findings were observed in any of the examined organs/tissues.

The findings reported were considered to be incidental and within the background incidence of findings reported in this age and strain of laboratory maintained Spraque Dawley rats and as such to be of no toxicological significance.

In the liver, a minimal focal hepatocellular vacuolation was recorded in three of five control females, three of five high dose males and five of five high dose females. No vacuolation was observed in the control males. A low grade hepatocellular vacuolation is a common spontaneous background finding in Sprague Dawley rats and is in the present study considered to have no relation to treatment – the fact that no vacuolation was observed in the control males is considered to be a coincidence.

5.16.1 Decedents

In the lungs of female No 7 (Group 1), a slight focal pleuritis, a slight focal alveolar accumulation of mixed inflammatory cells and a minimal focal alveolar haemorrhage were found. In the thymus, a moderately increased cortical lymphocytolysis was present. These changes were consistent with a previous mis-dosing.

6 Discussion

There was a tendency towards a lower food consumption, decreased body weight gain and increased water consumption in Group 4 animals. In the absence of other findings in the study that would indicate a direct toxic effect of the test article, these findings are considered to indicate that the relatively large amounts of protein present in the highest dose (3605 mg TOS/kg bw) of enzyme SP387/TL1 might not be palatable for the rat.

Furthermore, the high protein intake (enzyme) could explain the slightly increased urea level in serum as well as the lowering of pH in the urine secondly by an increased protein catabolism.

7 Conclusion

Daily administration by oral gavage of trypsin analogue SP387/TL1 to Sprague Dawley rats for 25 days at dosages of 0, 360, 1190 and 3605 mg total organic solids (TOS)/kg bw/day did not cause any treatment related toxicological effects.

Consequently, in this study the NOAEL (No Observed Adverse Effect Level) was 3605 mg TOS/kg bw/day (corresponding to an enzyme activity of 4005 KMTU/kg bw/day).

Figure 1 Body weight

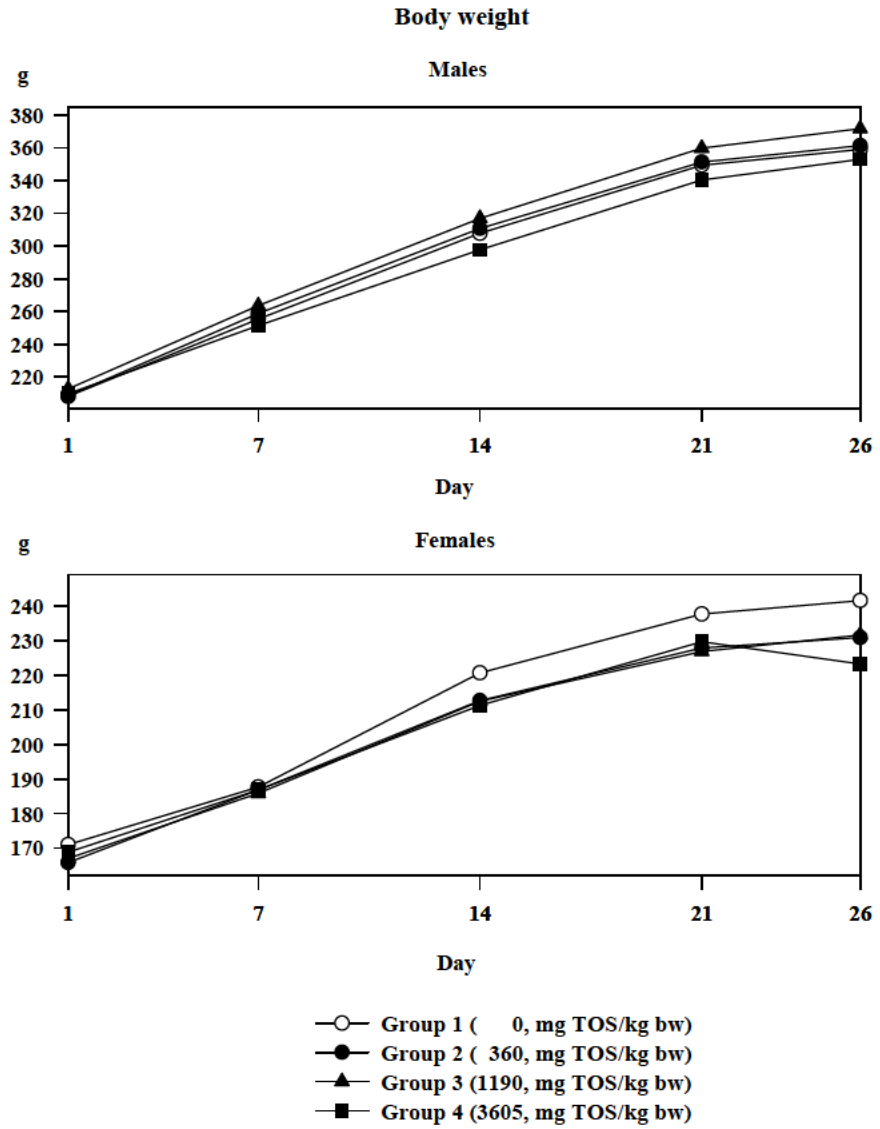


Table 7 Open field test – Group mean values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Group mean values - Week 4

Males

GROUP (Dose) mg TOS/kg bw	TIME MOVING				TOTAL DISTANCE (m)				NO. OF REARINGS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	234.2	23.6	5		41.8	6.8	5		37.3	3.3	4	
2 (360)	245.6	8.2	5		41.3	4.3	5		45.6	10.9	5	
3 (1190)	250.8	8.1	5		49.3	5.5	5		44.2	11.2	5	
4 (3605)	239.4	17.0	5		35.9	4.7	5		29.0	9.2	5	

GROUP (Dose) mg TOS/kg bw	TIME CENTRE				TIME PERIPHERY				TOTAL CORNER VISITS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	26.2	8.3	5		273.8	8.3	5		11.4	2.1	5	
2 (360)	14.6	8.7	5		285.4	8.7	5		23.4	6.7	5	**
3 (1190)	35.8	9.2	5		264.2	9.2	5		11.6	3.4	5	
4 (3605)	18.8	4.6	5		281.2	4.6	5		19.8	5.8	5	*

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Group mean values - Week 4

Males

GROUP (Dose) mg TOS/kg bw	MOVES/COUNTS			p
	Mean	S.D.	N	
1 (0)	1170.4	118.2	5	
2 (360)	1227.4	40.8	5	
3 (1190)	1254.4	39.8	5	
4 (3605)	1197.6	85.1	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Group mean values - Week 4

Females

GROUP (Dose) mg TOS/kg bw	TIME MOVING				TOTAL DISTANCE (m)				NO. OF REARINGS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	248.0	6.7	4		55.2	4.3	4		43.3	14.7	4	
2 (360)	253.4	5.1	5		48.7	3.8	5		45.8	6.6	5	
3 (1190)	246.0	4.3	5		51.2	5.7	5		36.6	7.5	5	
4 (3605)	246.8	4.5	5		43.6	2.9	5	**	38.8	8.3	5	

GROUP (Dose) mg TOS/kg bw	TIME CENTRE				TIME PERIPHERY				TOTAL CORNER VISITS			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	23.8	3.5	4		276.3	3.5	4		16.0	2.3	4	
2 (360)	8.0	5.0	5	*	292.0	5.0	5	*	33.2	4.1	5	**
3 (1190)	24.8	14.9	5		275.2	14.9	5		15.8	1.6	5	
4 (3605)	7.8	6.2	5	*	292.2	6.2	5	*	30.4	3.5	5	**

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Group mean values - Week 4

Females

GROUP (Dose) mg TOS/kg bw	MOVES/COUNTS			p
	Mean	S.D.	N	
1 (0)	1240.3	33.8	4	
2 (360)	1267.4	25.3	5	
3 (1190)	1229.6	21.5	5	
4 (3605)	1234.0	22.9	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Incidence of findings - - Week 4

Males

GROUP (Dose)	ABNORMAL BEHAV-IOUR		
	0	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

GROUP (Dose)	ATAXIA		
	0	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Incidence of findings - - Week 4

Females

GROUP (Dose)	ABNORMAL BEHAV-IOUR		
	0	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

GROUP (Dose)	ATAXIA		
	0	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

Table 8 Stimuli-induced tests – Incidence of findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	PUPIL REFLEX		Total	p
	Proper reaction	Failed reaction		
1 (0)	5	0	5	
2 (360)	5	0	5	
3 (1190)	5	0	5	
4 (3605)	4	1	5	
Total	19	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	TOE PINCH REACTION		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	GRASP RESPONSE		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	GRIP STRENGTH		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	EYELID REFLEX		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	STARTLE RESPONSE		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	HEAD SHAKE RESPONSE		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	RIGHTING REFLEX, TABLE		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	RIGHTING REFLEX, HAND		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	PLACING REFLEX		
	Proper reaction	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Males

GROUP (Dose) mg TOS/kg bw	NEGATIVE GEOTAXIS		Total	p
	Proper reaction	Failed reaction		
1 (0)	5	0	5	
2 (360)	5	0	5	
3 (1190)	5	0	5	
4 (3605)	4	1	5	
Total	19	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	PUPIL REFLEX		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	TOE PINCH REACTION		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	GRASP RESPONSE		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	GRIP STRENGTH		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	EYELID REFLEX		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	STARTLE RESPONSE		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	HEAD SHAKE RESPONSE		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	RIGHTING REFLEX, TABLE		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	RIGHTING REFLEX, HAND		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	PLACING REFLEX		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Incidence of findings - Week 4

Females

GROUP (Dose) mg TOS/kg bw	NEGATIVE GEOTAXIS		
	Proper reaction	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

Table 9 Body weight – Group mean values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values (g) - Day of arrival to Day 26

Males

GROUP (Dose) mg TOS/kg bw	ON ARRIVAL				DAY -1				DAY 1			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	144.6	10.2	5		199.2	13.7	5		208.2	12.8	5	
2 (360)	142.8	8.4	5		198.4	13.3	5		208.6	13.5	5	
3 (1190)	140.0	8.2	5		201.4	6.9	5		212.8	7.2	5	
4 (3605)	142.4	9.6	5		200.2	10.1	5		209.8	11.3	5	

GROUP (Dose) mg TOS/kg bw	DAY 7				DAY 14				DAY 21			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	255.4	14.6	5		307.8	13.8	5		349.4	15.6	5	
2 (360)	258.8	17.0	5		310.8	21.2	5		351.4	22.9	5	
3 (1190)	263.6	8.6	5		317.0	11.0	5		359.8	15.6	5	
4 (3605)	251.4	16.9	5		297.8	16.0	5		340.4	21.3	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values (g) - Day of arrival to Day 26

Males

GROUP (Dose) mg TOS/kg bw	DAY 26			p	BODY WT GAIN DAY 1 TO DAY 26			p
	Mean	S.D.	N		Mean	S.D.	N	
1 (0)	359.0	23.5	5		150.8	22.0	5	
2 (360)	361.4	28.0	5		152.8	18.1	5	
3 (1190)	371.8	16.1	5		159.0	17.6	5	
4 (3605)	353.0	20.7	5		143.2	19.5	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values (g) - Day of arrival to Day 26

Females

GROUP (Dose) mg TOS/kg bw	ON ARRIVAL				DAY -1				DAY 1			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	132.8	4.2	5		163.2	3.3	5		171.0	5.0	5	
2 (360)	131.8	8.0	5		161.2	9.0	5		165.8	10.7	5	
3 (1190)	131.6	5.5	5		161.2	11.6	5		167.0	9.7	5	
4 (3605)	136.0	5.9	5		163.0	8.6	5		168.8	10.2	5	

GROUP (Dose) mg TOS/kg bw	DAY 7				DAY 14				DAY 21			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	187.6	4.4	5		220.6	7.0	5		237.6	18.7	5	
2 (360)	186.8	18.6	5		212.6	14.7	5		227.8	20.4	5	
3 (1190)	185.8	11.8	5		212.4	15.8	5		226.8	11.8	5	
4 (3605)	186.8	13.6	5		211.2	13.2	5		229.6	21.5	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Group mean values (g) - Day of arrival to Day 26

Females

GROUP (Dose) mg TOS/kg bw	DAY 26				BODY WT GAIN DAY 1 TO DAY 26			
	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	241.5	22.2	4		72.3	22.1	4	
2 (360)	230.8	26.1	5		65.0	18.5	5	
3 (1190)	231.6	13.6	5		64.6	8.5	5	
4 (3605)	223.2	23.8	5		54.4	16.6	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

Table 10 Haematology – Group mean values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	Hb				RBC				% RETIC			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	9.78	0.61	5		8.44	0.40	5		2.93	0.27	5	
2 (360)	9.66	0.53	5		8.07	0.77	5		2.76	0.41	5	
3 (1190)	9.74	0.56	5		8.58	0.29	5		3.13	0.50	5	
4 (3605)	9.66	0.36	5		8.29	0.33	5		2.82	0.25	5	

GROUP (Dose) mg TOS/kg bw	RETIC				HT				MCV			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.246	0.013	5		47.2	2.2	5		55.6	1.7	5	
2 (360)	0.221	0.028	5		46.2	4.7	5		57.0	1.0	5	
3 (1190)	0.268	0.038	5		48.4	2.1	5		56.0	1.9	5	
4 (3605)	0.234	0.016	5		46.6	1.8	5		56.0	1.6	5	

Abbreviations and units are explained in Table 3

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	MCH				MCHC				% NEUTRO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1.16	0.11	5		20.9	2.2	5		5.0	3.7	5	
2 (360)	1.22	0.04	5		21.1	1.4	5		4.6	3.4	5	
3 (1190)	1.12	0.04	5		20.2	0.8	5		4.8	2.2	5	
4 (3605)	1.16	0.05	5		20.8	0.3	5		7.4	3.3	5	

GROUP (Dose) mg TOS/kg bw	% LYMPHO				% EOS				% BASO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	93.4	5.5	5		0.8	1.8	5		0.0	0.0	5	
2 (360)	95.4	3.4	5		0.0	0.0	5		0.0	0.0	5	
3 (1190)	94.8	2.2	5		0.4	0.5	5		0.0	0.0	5	
4 (3605)	91.6	3.6	5		0.8	0.8	5		0.0	0.0	5	

Abbreviations and units are explained in Table 3

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	% MONO				APTT				Pt			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.8	0.8	5		16.4	3.0	5		14.8	0.4	5	
2 (360)	0.0	0.0	5		16.7	1.3	5		14.7	0.5	5	
3 (1190)	0.0	0.0	5		17.4	2.5	5		14.8	0.8	5	
4 (3605)	0.2	0.4	5		17.7	3.3	5		15.0	0.9	5	

GROUP (Dose) mg TOS/kg bw	Fib			
	Mean	S.D.	N	p
1 (0)	3.46	0.79	5	
2 (360)	3.80	0.26	5	
3 (1190)	3.81	0.31	5	
4 (3605)	3.34	0.15	5	

Abbreviations and units are explained in Table 3

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	Hb				RBC				% RETIC			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	9.73	0.36	4		8.01	0.82	4		2.25	0.47	4	
2 (360)	9.30	0.31	5		7.99	0.41	5		2.22	0.50	5	
3 (1190)	9.72	0.51	5		8.15	0.78	5		2.01	0.48	5	
4 (3605)	9.80	0.69	5		8.69	0.57	5		2.44	0.27	5	

GROUP (Dose) mg TOS/kg bw	RETIC				HT				MCV			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.178	0.029	4		45.0	4.2	4		56.3	1.0	4	
2 (360)	0.178	0.042	5		43.4	1.9	5		54.4	1.1	5	
3 (1190)	0.164	0.041	5		45.0	3.7	5		55.2	1.6	5	
4 (3605)	0.212	0.028	5		46.4	3.5	5		53.2	0.8	5	**

Abbreviations and units are explained in Table 3

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	MCH				MCHC				% NEUTRO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1.20	0.08	4		21.7	1.3	4		6.0	2.7	4	
2 (360)	1.18	0.04	5		21.4	0.3	5		6.6	2.2	5	
3 (1190)	1.20	0.07	5		21.7	1.0	5		5.0	1.8	4	
4 (3605)	1.12	0.04	5		21.1	0.3	5		5.8	1.9	4	

GROUP (Dose) mg TOS/kg bw	% LYMPHO				% EOS				% BASO			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	92.3	3.3	4		1.5	1.3	4		0.0	0.0	4	
2 (360)	92.2	2.2	5		1.0	1.2	5		0.0	0.0	5	
3 (1190)	94.5	1.3	4		0.3	0.5	4		0.0	0.0	4	
4 (3605)	93.3	1.0	4		1.0	1.4	4		0.0	0.0	4	

Abbreviations and units are explained in Table 3

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	% MONO				APTT				Pt			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.3	0.5	4		15.4	1.1	4		15.8	0.4	4	
2 (360)	0.2	0.4	5		16.7	3.2	5		15.5	0.2	5	
3 (1190)	0.3	0.5	4		15.9	1.7	5		15.7	0.1	5	
4 (3605)	0.0	0.0	4		16.3	0.8	5		15.8	0.3	5	

GROUP (Dose) mg TOS/kg bw	Fib			
	Mean	S.D.	N	p
1 (0)	3.36	0.36	4	
2 (360)	2.96	0.28	5	
3 (1190)	2.97	0.22	5	
4 (3605)	3.24	0.40	5	

Abbreviations and units are explained in Table 3

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

Table 11 Clinical chemistry – Group mean values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	ALAT				ASAT				ALKPH			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.92	0.21	5		1.61	0.36	5		4.10	0.57	5	
2 (360)	0.80	0.09	5		1.38	0.11	5		4.19	0.80	5	
3 (1190)	0.86	0.17	5		1.43	0.18	5		4.10	0.56	5	
4 (3605)	0.73	0.08	5		1.41	0.13	5		3.96	0.89	5	

GROUP (Dose) mg TOS/kg bw	TBILI				GGT				CHOL			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	<0.84	>0.30	5		<0.04	>0.01	5		2.23	0.45	5	
2 (360)	<0.76	>0.19	5		<0.03	>0.00	5		2.14	0.25	5	
3 (1190)	1.04	0.30	5		<0.03	>0.00	5		2.16	0.22	5	
4 (3605)	<0.68	>0.20	5		<0.03	>0.00	5		2.28	0.20	5	

Abbreviations and units are explained in Table 4

Limit of detection for TBILI = 0.5 - this value is used in the calculation
Limit of detection for GGT = 0.03 - this value is used in the calculation

* means p<0.05, versus control group
** means p<0.01, versus control group
S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	TRIG				UREA				CREAT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1.69	0.40	5		7.99	1.01	5		20.4	3.6	5	
2 (360)	1.62	0.60	5		7.67	0.73	5		21.2	3.5	5	
3 (1190)	1.86	0.73	5		7.98	1.19	5		19.2	2.8	5	
4 (3605)	1.71	0.35	5		8.19	0.62	5		20.0	1.2	5	

GROUP (Dose) mg TOS/kg bw	GLUC				Na				K			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	7.42	0.43	5		145.9	1.6	5		6.58	0.49	5	
2 (360)	7.18	0.51	5		146.7	2.1	5		6.65	0.33	5	
3 (1190)	8.44	1.62	5		146.5	1.0	5		6.25	0.71	5	
4 (3605)	7.76	0.51	5		145.6	1.8	5		6.34	0.21	5	

Abbreviations and units are explained in Table 4

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	Ca				Mg				P			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	3.05	0.07	5		1.11	0.08	5		3.34	0.35	5	
2 (360)	3.04	0.05	5		1.09	0.10	5		3.20	0.25	5	
3 (1190)	3.09	0.12	5		1.11	0.07	5		3.41	0.33	5	
4 (3605)	2.98	0.08	5		1.05	0.03	5		2.86	0.33	5	

GROUP (Dose) mg TOS/kg bw	Cl				PROTEIN				ALB			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	98.0	1.7	5		65.2	2.3	5		45.0	2.0	5	
2 (360)	99.1	1.2	5		66.3	3.2	5		46.0	2.0	5	
3 (1190)	98.2	1.0	5		65.9	1.9	5		45.0	1.2	5	
4 (3605)	99.9	1.8	5		61.3	2.6	5		43.4	1.9	5	

Abbreviations and units are explained in Table 4

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	GLOBULIN				ALB/G Ratio			
	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	20.2	2.2	5		2.25	0.30	5	
2 (360)	20.3	1.5	5		2.28	0.11	5	
3 (1190)	20.9	1.2	5		2.16	0.12	5	
4 (3605)	17.9	1.3	5		2.44	0.18	5	

Abbreviations and units are explained in Table 4

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	ALAT				ASAT				ALKPH			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.69	0.06	4		1.36	0.09	4		3.04	0.38	4	
2 (360)	0.60	0.04	5		1.43	0.17	5		4.01	0.48	5	**
3 (1190)	0.64	0.11	5		1.39	0.13	5		3.30	0.42	5	
4 (3605)	0.64	0.14	5		1.50	0.12	5		2.68	0.25	5	

GROUP (Dose) mg TOS/kg bw	TBILI				GGT				CHOL			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	0.93	0.13	4		<0.03	>0.00	4		2.58	0.38	4	
2 (360)	0.84	0.23	5		<0.03	>0.00	5		2.08	0.33	5	
3 (1190)	1.00	0.40	5		<0.03	>0.00	5		2.13	0.40	5	
4 (3605)	1.00	0.27	5		<0.03	>0.00	5		2.50	0.43	5	

Abbreviations and units are explained in Table 4

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	TRIG				UREA				CREAT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1.00	0.15	4		5.97	0.39	4		18.0	3.7	4	
2 (360)	<0.77	>0.21	5		6.71	0.87	5		18.6	1.3	5	
3 (1190)	0.91	0.24	5		7.46	0.78	5	*	21.2	1.8	5	
4 (3605)	0.81	0.28	5		7.52	0.75	5	*	19.4	2.1	5	

GROUP (Dose) mg TOS/kg bw	GLUC				Na				K			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	7.30	0.39	4		143.7	1.7	4		6.44	0.36	4	
2 (360)	7.18	0.16	5		145.7	0.6	5		6.25	0.20	5	
3 (1190)	7.84	1.13	5		144.6	1.9	5		6.26	0.53	5	
4 (3605)	7.50	0.83	5		144.0	1.1	5		6.84	1.33	5	

Abbreviations and units are explained in Table 4

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	Ca				Mg				P			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	3.00	0.06	4		1.14	0.07	4		3.32	0.27	4	
2 (360)	2.95	0.07	5		1.13	0.06	5		2.97	0.26	5	
3 (1190)	2.98	0.03	5		1.13	0.06	5		2.92	0.28	5	
4 (3605)	2.77	0.47	5		1.03	0.22	5		3.02	0.15	5	

GROUP (Dose) mg TOS/kg bw	Cl				PROTEIN				ALB			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	97.3	1.2	4		65.3	3.5	4		47.0	2.9	4	
2 (360)	98.9	1.0	5		62.7	2.7	5		45.6	1.8	5	
3 (1190)	97.7	1.9	5		63.5	2.2	5		45.8	1.9	5	
4 (3605)	99.1	0.8	5	*	64.8	3.4	5		47.4	2.4	5	

Abbreviations and units are explained in Table 4

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	GLOBULIN				ALB/G Ratio			
	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	18.3	0.9	4		2.57	0.14	4	
2 (360)	17.1	1.9	5		2.68	0.29	5	
3 (1190)	17.7	1.1	5		2.60	0.19	5	
4 (3605)	17.4	1.7	5		2.74	0.27	5	

Abbreviations and units are explained in Table 4

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

Table 12 Urinalysis – Group mean values and Incidence of findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Group mean values - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	VOLUME			p
	MEAN	S.D.	N	
1 (0)	14.0	2.3	5	
2 (360)	17.2	6.9	5	
3 (1190)	17.4	1.9	5	*
4 (3605)	15.8	5.6	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Group mean values - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	VOLUME			p
	MEAN	S.D.	N	
1 (0)	16.5	8.7	4	
2 (360)	11.8	4.9	5	
3 (1190)	13.2	8.1	5	
4 (3605)	13.2	6.2	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	SPECIFIC GRAVITY					p
	1.015	1.020	1.025	≥1.030	Total	
1 (0)	3	2	0	0	5	
2 (360)	2	3	0	0	5	
3 (1190)	3	2	0	0	5	
4 (3605)	1	1	2	1	5	
Total	9	8	2	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	pH							p
	6.0	6.5	7.0	7.5	8.0	8.5	Total	
1 (0)	0	0	1	2	1	1	5	
2 (360)	0	1	2	2	0	0	5	
3 (1190)	0	1	4	0	0	0	5	*
4 (3605)	1	2	1	1	0	0	5	
Total	1	4	8	5	1	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	COLOUR			p
	Light yellow	Yellow	Total	
1 (0)	3	2	5	
2 (360)	3	2	5	
3 (1190)	4	1	5	
4 (3605)	2	3	5	
Total	12	8	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	PROTEIN					p
	Trace	0.3 g/l	1.0 g/l	>3.0 g/l	Total	
1 (0)	1	3	0	1	5	
2 (360)	4	1	0	0	5	
3 (1190)	3	1	1	0	5	
4 (3605)	2	2	1	0	5	
Total	10	7	2	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	LEUCOCYTES				
	15 cells/µl	70 cells/µl	500 cells/µl	Total	p
1 (0)	4	0	1	5	
2 (360)	3	2	0	5	
3 (1190)	1	4	0	5	
4 (3605)	2	3	0	5	
Total	10	9	1	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	NITRITE			p
	No trace	Positive	Total	
1 (0)	2	3	5	
2 (360)	3	2	5	
3 (1190)	5	0	5	
4 (3605)	5	0	5	
Total	15	5	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	BLOOD		p
	No trace	Total	
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	GLUCOSE		p
	No trace	Total	
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	KETONES				
	No trace	Trace	1.5 mmol/l	Total	p
1 (0)	0	4	1	5	
2 (360)	0	4	1	5	
3 (1190)	1	3	1	5	
4 (3605)	0	5	0	5	
Total	1	16	3	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	BILIRUBIN		p
	No trace	Total	
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	UROBILINOGEN		
	3.2 µmol/l	Total	p
1 (0)	5	5	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	20	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	SPECIFIC GRAVITY						p
	1.010	1.015	1.020	1.025	≥1.030	Total	
1 (0)	2	2	0	0	0	4	
2 (360)	1	1	3	0	0	5	
3 (1190)	2	1	1	1	0	5	
4 (3605)	0	2	1	0	2	5	
Total	5	6	5	1	2	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	pH				p
	6.5	7.0	7.5	Total	
1 (0)	0	3	1	4	
2 (360)	1	3	1	5	
3 (1190)	4	1	0	5	
4 (3605)	2	3	0	5	
Total	7	10	2	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	COLOUR				
	Light yellow	Yellow	Dark yellow	Total	p
1 (0)	2	2	0	4	
2 (360)	3	2	0	5	
3 (1190)	3	2	0	5	
4 (3605)	2	1	2	5	
Total	10	7	2	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	PROTEIN				p
	No trace	Trace	0.3 g/l	Total	
1 (0)	3	0	1	4	
2 (360)	2	2	1	5	
3 (1190)	3	2	0	5	
4 (3605)	1	4	0	5	
Total	9	8	2	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	LEUCOCYTES				
	No trace	15 cells/µl	70 cells/µl	Total	p
1 (0)	2	1	1	4	
2 (360)	3	2	0	5	
3 (1190)	2	3	0	5	
4 (3605)	2	2	1	5	
Total	9	8	2	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	NITRITE		p
	No trace	Total	
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	BLOOD		p
	No trace	Total	
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	GLUCOSE		p
	No trace	Total	
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	KETONES			p
	No trace	Trace	Total	
1 (0)	3	1	4	
2 (360)	5	0	5	
3 (1190)	4	1	5	
4 (3605)	4	1	5	
Total	16	3	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	BILIRUBIN		p
	No trace	Total	
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	UROBILINOGEN		
	3.2 µmol/l	Total	p
1 (0)	4	4	
2 (360)	5	5	
3 (1190)	5	5	
4 (3605)	5	5	
Total	19	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

Table 13 Urinalysis – Microscopy – Incidence of findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	ERYTHROCYTES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	3	2	0	0	0	5	
2 (360)	5	0	0	0	0	5	
3 (1190)	3	2	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	16	4	0	0	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	LEUCOCYTES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	4	1	0	0	0	5	
2 (360)	4	1	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	18	2	0	0	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	EPITHELIAL CELLS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	2	2	1	0	0	5	
2 (360)	1	2	2	0	0	5	
3 (1190)	1	2	2	0	0	5	
4 (3605)	2	2	1	0	0	5	
Total	6	8	6	0	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	CRYSTALS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	0	0	4	1	5	
2 (360)	0	0	0	3	2	5	
3 (1190)	0	0	0	5	0	5	
4 (3605)	0	1	2	2	0	5	
Total	0	1	2	14	3	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	URATES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	0	4	1	0	5	
2 (360)	0	2	3	0	0	5	
3 (1190)	1	1	3	0	0	5	
4 (3605)	3	2	0	0	0	5	**
Total	4	5	10	1	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	HYALINE CASTS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	5	0	0	0	0	5	
2 (360)	5	0	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	20	0	0	0	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	GRANULAR CASTS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	5	0	0	0	0	5	
2 (360)	5	0	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	20	0	0	0	0	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Males

GROUP (Dose) mg TOS/kg bw	BACTERIA						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	0	0	2	3	5	
2 (360)	0	0	0	3	2	5	
3 (1190)	0	0	0	4	1	5	
4 (3605)	0	0	0	5	0	5	
Total	0	0	0	14	6	20	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	ERYTHROCYTES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	4	0	0	0	0	4	
2 (360)	5	0	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	4	1	0	0	0	5	
Total	18	1	0	0	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	LEUCOCYTES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	4	0	0	0	0	4	
2 (360)	5	0	0	0	0	5	
3 (1190)	4	1	0	0	0	5	
4 (3605)	4	1	0	0	0	5	
Total	17	2	0	0	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	EPITHELIAL CELLS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	2	2	0	0	4	
2 (360)	3	2	0	0	0	5	
3 (1190)	1	2	2	0	0	5	
4 (3605)	3	2	0	0	0	5	
Total	7	8	4	0	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	CRYSTALS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	2	0	2	0	4	
2 (360)	0	0	0	5	0	5	
3 (1190)	0	0	3	2	0	5	
4 (3605)	0	2	2	1	0	5	
Total	0	4	5	10	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	URATES						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	2	1	1	0	0	4	
2 (360)	1	2	1	1	0	5	
3 (1190)	2	1	2	0	0	5	
4 (3605)	1	3	1	0	0	5	
Total	6	7	5	1	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	HYALINE CASTS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	4	0	0	0	0	4	
2 (360)	5	0	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	19	0	0	0	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	GRANULAR CASTS						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	4	0	0	0	0	4	
2 (360)	5	0	0	0	0	5	
3 (1190)	5	0	0	0	0	5	
4 (3605)	5	0	0	0	0	5	
Total	19	0	0	0	0	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Incidence of findings - At termination of treatment

Females

GROUP (Dose) mg TOS/kg bw	BACTERIA						p
	No trace	Traces	Slight	Moderate	Marked	Total	
1 (0)	0	0	0	3	1	4	
2 (360)	0	0	0	4	1	5	
3 (1190)	0	0	0	3	2	5	
4 (3605)	0	0	3	2	0	5	
Total	0	0	3	12	4	19	

* means p<0.05, versus control group
** means p<0.01, versus control group

Table 14 Organ weight – Group mean values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	BODY WT, g				ADRENALS ABSOLUTE				ADRENALS % of BODY WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	359.0	23.5	5		57.6	12.0	5		0.0161	0.0033	5	
2 (360)	361.4	28.0	5		53.4	5.9	5		0.0149	0.0025	5	
3 (1190)	371.8	16.1	5		58.4	4.7	5		0.0157	0.0014	5	
4 (3605)	353.0	20.7	5		60.3	9.0	4		0.0168	0.0019	4	

GROUP (Dose) mg TOS/kg bw	ADRENALS % OF BRAIN WT				BRAIN ABSOLUTE				BRAIN % of BODY WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	2.66	0.51	5		2163	64	5		0.604	0.034	5	
2 (360)	2.53	0.32	5		2117	49	5		0.588	0.041	5	
3 (1190)	2.71	0.23	5		2153	54	5		0.580	0.026	5	
4 (3605)	2.85	0.46	4		2089	93	5		0.593	0.024	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	EPIDIDYMIDES				EPIDIDYMIDES				EPIDIDYMIDES			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	849	66	5		0.237	0.016	5		39.2	2.0	5	
2 (360)	901	116	5		0.249	0.025	5		42.5	5.2	5	
3 (1190)	909	86	5		0.245	0.023	5		42.2	3.4	5	
4 (3605)	846	90	5		0.241	0.033	5		40.5	4.4	5	

GROUP (Dose) mg TOS/kg bw	HEART				HEART				HEART			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1371	194	5		0.382	0.056	5		63.3	8.6	5	
2 (360)	1428	53	5		0.396	0.024	5		67.5	2.4	5	
3 (1190)	1433	140	5		0.385	0.025	5		66.6	6.3	5	
4 (3605)	1552	175	5		0.440	0.041	5		74.2	6.6	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	KIDNEYS				KIDNEYS				KIDNEYS			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	2806	412	5		0.779	0.078	5		129.6	17.0	5	
2 (360)	2783	162	5		0.773	0.062	5		131.5	6.9	5	
3 (1190)	2911	136	5		0.784	0.041	5		135.4	7.7	5	
4 (3605)	2825	251	5		0.799	0.030	5		135.1	7.3	5	

GROUP (Dose) mg TOS/kg bw	LIVER				LIVER				LIVER			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	17227	2746	5		4.78	0.53	5		796.0	119.2	5	
2 (360)	16728	2274	5		4.62	0.47	5		789.3	94.5	5	
3 (1190)	17756	1709	5		4.77	0.31	5		825.0	78.1	5	
4 (3605)	16978	714	5		4.82	0.22	5		813.4	36.2	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	PROSTATE ABSOLUTE				PROSTATE % of BODY WT				PROSTATE % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	510	67	5		0.143	0.023	5		23.5	2.8	5	
2 (360)	407	70	5		0.112	0.017	5		19.2	2.9	5	
3 (1190)	430	111	5		0.116	0.029	5		20.0	5.0	5	
4 (3605)	415	54	5		0.117	0.015	5		19.8	2.0	5	

GROUP (Dose) mg TOS/kg bw	SEMINAL VESICLES ABSOLUTE				SEMINAL VESICLES % of BODY WT				SEMINAL VESICLES % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1079	327	5		0.301	0.086	5		49.7	13.9	5	
2 (360)	1176	170	5		0.325	0.031	5		55.5	7.6	5	
3 (1190)	1213	103	5		0.328	0.041	5		56.4	5.1	5	
4 (3605)	1187	256	5		0.337	0.078	5		56.7	11.6	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	SPLEEN ABSOLUTE				SPLEEN % of BODY WT				SPLEEN % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	912	140	5		0.253	0.024	5		42.1	5.4	5	
2 (360)	962	142	5		0.266	0.034	5		45.4	5.8	5	
3 (1190)	941	80	5		0.253	0.018	5		43.7	3.7	5	
4 (3605)	962	183	5		0.273	0.051	5		46.2	9.9	5	

GROUP (Dose) mg TOS/kg bw	TESTES ABSOLUTE				TESTES % of BODY WT				TESTES % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	3202	155	5		0.895	0.066	5		148.0	4.5	5	
2 (360)	3541	276	5		0.982	0.079	5		167.3	12.5	5	*
3 (1190)	3556	246	5		0.958	0.072	5		165.2	10.5	5	*
4 (3605)	3503	280	5		0.993	0.076	5		167.6	10.9	5	*

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Males

GROUP (Dose) mg TOS/kg bw	THYMUS ABSOLUTE				THYMUS % of BODY WT				THYMUS % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	669.2	82.9	5		0.187	0.020	5		31.0	4.1	5	
2 (360)	738.6	177.3	5		0.203	0.038	5		34.8	7.9	5	
3 (1190)	735.4	88.6	5		0.198	0.022	5		34.2	4.3	5	
4 (3605)	698.4	104.4	5		0.197	0.023	5		33.4	5.2	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Females

GROUP (Dose) mg TOS/kg bw	BODY WT, g				ADRENALS ABSOLUTE				ADRENALS % of BODY WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	241.5	22.2	4		73.5	18.0	4		0.0307	0.0087	4	
2 (360)	230.8	26.1	5		75.2	11.1	5		0.0329	0.0062	5	
3 (1190)	231.6	13.6	5		67.8	7.6	4		0.0294	0.0033	4	
4 (3605)	223.2	23.8	5		75.0	11.5	5		0.0337	0.0043	5	

GROUP (Dose) mg TOS/kg bw	ADRENALS % OF BRAIN WT				BRAIN ABSOLUTE				BRAIN % of BODY WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	3.64	0.87	4		2020	70	4		0.842	0.089	4	
2 (360)	3.79	0.56	5		1984	81	5		0.865	0.063	5	
3 (1190)	3.36	0.24	4		1991	112	5		0.861	0.054	5	
4 (3605)	3.74	0.38	5		1996	127	5		0.900	0.086	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Females

GROUP (Dose) mg TOS/kg bw	HEART				HEART				HEART			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1042	89	4		0.434	0.048	4		51.5	2.8	4	
2 (360)	1030	64	5		0.449	0.030	5		51.9	2.1	5	
3 (1190)	1030	146	5		0.445	0.060	5		51.6	5.1	5	
4 (3605)	945	98	5		0.425	0.042	5		47.4	4.1	5	

GROUP (Dose) mg TOS/kg bw	KIDNEYS				KIDNEYS				KIDNEYS			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	1877	107	4		0.779	0.037	4		93.0	7.0	4	
2 (360)	1825	126	5		0.794	0.049	5		91.9	4.7	5	
3 (1190)	1848	121	5		0.799	0.046	5		92.9	3.6	5	
4 (3605)	1814	243	5		0.813	0.067	5		90.7	8.8	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Females

GROUP (Dose) mg TOS/kg bw	LIVER				LIVER				LIVER			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	10220	1127	4		4.23	0.12	4		506.7	61.1	4	
2 (360)	10008	1323	5		4.33	0.18	5		503.1	47.1	5	
3 (1190)	9861	596	5		4.26	0.28	5		496.3	36.0	5	
4 (3605)	9450	1340	5		4.22	0.27	5		472.7	53.3	5	

GROUP (Dose) mg TOS/kg bw	OVARIES				OVARIES				OVARIES			
	ABSOLUTE				% of BODY WT				% OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	104.0	15.4	4		0.0434	0.0078	4		5.17	0.90	4	
2 (360)	95.2	10.2	5		0.0416	0.0059	5		4.80	0.44	5	
3 (1190)	102.8	12.8	5		0.0445	0.0061	5		5.15	0.45	5	
4 (3605)	104.0	18.3	5		0.0467	0.0072	5		5.22	0.90	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Females

GROUP (Dose) mg TOS/kg bw	SPLEEN ABSOLUTE				SPLEEN % of BODY WT				SPLEEN % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	648	143	4		0.267	0.043	4		32.0	6.8	4	
2 (360)	748	148	5		0.322	0.029	5		37.5	6.0	5	
3 (1190)	684	99	5		0.296	0.041	5		34.2	3.2	5	
4 (3605)	658	107	5		0.294	0.035	5		32.9	4.2	5	

GROUP (Dose) mg TOS/kg bw	THYMUS ABSOLUTE				THYMUS % of BODY WT				THYMUS % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	551.0	155.2	4		0.225	0.044	4		27.3	7.6	4	
2 (360)	499.6	57.8	5		0.217	0.014	5		25.1	2.2	5	
3 (1190)	503.6	88.8	5		0.217	0.032	5		25.3	4.1	5	
4 (3605)	476.4	113.2	5		0.212	0.040	5		23.8	5.0	5	

* means $p<0.05$, versus control group
** means $p<0.01$, versus control group

S.D. = standard deviation N = number of animals

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) and relative (% of body wt and brain wt) organ weight

Group mean values - Day 26

Females

GROUP (Dose) mg TOS/kg bw	UTERUS ABSOLUTE				UTERUS % of BODY WT				UTERUS % OF BRAIN WT			
	Mean	S.D.	N	p	Mean	S.D.	N	p	Mean	S.D.	N	p
1 (0)	526	180	4		0.220	0.076	4		26.2	9.3	4	
2 (360)	489	68	5		0.214	0.036	5		24.6	3.0	5	
3 (1190)	548	169	5		0.239	0.081	5		28.0	10.2	5	
4 (3605)	575	30	5		0.261	0.039	5		29.0	2.9	5	

* means p<0.05, versus control group
** means p<0.01, versus control group

S.D. = standard deviation N = number of animals

Table 15 Clinical signs – Individual findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical signs

Individual findings

Group 1 – 0 mg TOS/kg bw

Animal Nos 1-5, males
No adverse clinical signs.

Animal No 6, female
No adverse clinical signs.

Animal No 7, female

Days -3 – 5:	Hair loss in the dorsal part of the neck.
Day 22	
- after dosing (14 hrs:	Slight blood on the gavage tube when withdrawn.
- at 14:43 hrs:	Lying down. Slight piloerection. Slightly forced abdominal respiration. Recovered during handling. Body weight 233 g.
Day 23:	Slight piloerection. Forced respiration. Dark and pinched eyes. Moving slowly. Body weight 218 g. Sent for necropsy due to adverse clinical signs and weight loss.

Animal Nos 8-10, females
No adverse clinical signs.

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical signs

Individual findings

Group 2 – 360 mg TOS/kg bw

Animal Nos 11-15, males
No adverse clinical signs.

Animal No 16, female
Days 16-26: Hair loss on the forelegs.

Animal Nos 17-20, females
No adverse clinical signs.

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical signs

Individual findings

Group 3 – 1190 mg TOS/kg bw

Animal Nos 21-24, males
No adverse clinical signs.

Animal No 25, male

Days 10-13:	Wound (approximately 0.5 x 0.3 cm) on the left side of the neck.
Days 16-19:	Wound with crust (approximately 0.3 x 0.3 cm) on the left side of the neck.
Days 20-22:	Wound with crust (approximately 0.1 x 0.1 cm) on the left side of the neck.

Animal No 26, female

Day 4:	Thin faeces.

Animal Nos 27-30, females
No adverse clinical signs.

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical signs

Individual findings

Group 4 – 3605 mg TOS/kg bw

Animal Nos 31-32, males
No adverse clinical signs.

Animal No 33, male

Day 14:	Secretion around the left eye.

Animal No 34, male
No adverse clinical signs.

Animal No 35, male

Day 13:	Left hind leg swollen approximately 1 cm in diameter around the tarsal joint, dark coloured (red/violet). Reluctant to stand on the leg, however, still moving around. Paw appeared slightly warm. Treated with 0.2 ml/kg Metacam[1)] s.c.
Day 14:	Left hind leg swollen from the tarsal joint and distally. Able to stand on the leg. Treated with 0.2 ml/kg Metacam[1)] s.c.
Day 15:	Left hind leg swollen from the tarsal joint and distally. Does not stand on the leg in the cage, but is able to stand on the leg on the table, however, without using its toes. Treated with 0.2 ml/kg Metacam[1)] s.c.
Day 16:	Tarsal joint of the left leg less swollen, now using the leg. Treated with 0.2 ml/kg Metacam[1)] s.c.
Day 17:	Slightly using its left leg. Treated with 0.2 ml/kg Metacam[1)] s.c.
Day 18:	Left leg slightly swollen, using the leg.
Day 19:	Tarsal joint slightly swollen, using the leg (almost normal gait).
Days 20-22:	Left leg slightly swollen – normal gait.
Days 23-26:	Left leg slightly swollen – slightly normal gait.

[1)] Metacam® = Meloxicam, 5mg/ml, Boehringer Ingelheim, Germany (s.c.)

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical signs

Individual findings

Group 4 – 3605 mg TOS/kg bw

Animal Nos 36-37, females
No adverse clinical signs.

Animal No 38, females
Day -2: Died during the ophthalmoscopic examination. Replaced by animal No 138.

Animal Nos 39 and 138, females
No adverse clinical signs.

Table 16 Open field test – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Individual values - Week 4

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY
1 (0)	1	225	39.5	34	36	264
	2	197	31.2	35	13	287
	3	245	45.4	39	28	272
	4	254	44.4	125#	28	272
	5	250	48.5	41	26	274
2 (360)	11	232	35.0	43	30	270
	12	251	40.1	33	12	288
	13	249	44.3	44	9	291
	14	252	41.0	63	12	288
	15	244	46.3	45	10	290
3 (1190)	21	256	47.8	29	52	248
	22	255	51.6	38	32	268
	23	250	49.8	54	31	269
	24	237	41.2	44	34	266
	25	256	56.1	56	30	270
4 (3605)	31	257	40.9	27	20	280
	32	216	30.3	21	22	278
	33	251	38.5	26	14	286
	34	245	38.4	45	14	286
	35	228	31.4	26	24	276

= outlier - result not included in statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Individual values - Week 4

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	TOTAL CORNER VISITS	MOVES/ COUNTS	ABNORMAL BEHAVIOUR	ATAXIA
1 (0)	1	9	1127	0	0
	2	11	983	0	0
	3	14	1223	0	0
	4	10	1270	0	0
	5	13	1249	0	0
2 (360)	11	13	1159	0	0
	12	25	1255	0	0
	13	29	1243	0	0
	14	21	1258	0	0
	15	29	1222	0	0
3 (1190)	21	10	1281	0	0
	22	12	1277	0	0
	23	11	1249	0	0
	24	8	1187	0	0
	25	17	1278	0	0
4 (3605)	31	18	1287	0	0
	32	12	1080	0	0
	33	24	1253	0	0
	34	27	1227	0	0
	35	18	1141	0	0

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Individual values - Week 4

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	TIME MOVING	TOTAL DISTANCE (m)	NO. OF REARINGS	TIME CENTRE	TIME PERIPHERY
1 (0)	6	240	50.1	59	28	272
	7 d					
	8	246	53.7	25	25	275
	9	256	56.7	39	20	280
	10	250	60.3	50	22	278
2 (360)	16	256	46.5	49	16	284
	17	248	46.6	54	10	290
	18	248	46.6	39	4	296
	19	256	48.6	39	5	295
	20	259	55.3	48	5	295
3 (1190)	26	243	50.3	32	51	249
	27	249	58.2	34	15	285
	28	240	44.1	29	16	284
	29	248	55.4	40	22	278
	30	250	47.9	48	20	280
4 (3605)	36	253	40.8	35	11	289
	37	250	43.1	27	2	298
	138	243	44.6	42	17	283
	39	245	48.1	41	3	297
	40	243	41.4	49	6	294

d = unscheduled dead

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Open field test

Individual values - Week 4

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	TOTAL CORNER VISITS	MOVES/ COUNTS	ABNORMAL BEHAVIOUR	ATAXIA
1 (0)	6	14	1199	0	0
	7 d				
	8	14	1231	0	0
	9	18	1279	0	0
	10	18	1252	0	0
2 (360)	16	31	1280	0	0
	17	33	1239	0	0
	18	29	1242	0	0
	19	33	1281	0	0
	20	40	1295	0	0
3 (1190)	26	15	1214	0	0
	27	17	1243	0	0
	28	15	1200	0	0
	29	18	1241	0	0
	30	14	1250	0	0
4 (3605)	36	28	1266	0	0
	37	32	1250	0	0
	138	26	1217	0	0
	39	35	1223	0	0
	40	31	1214	0	0

d = unscheduled dead

Table 17 Stimuli-induced tests – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Individual values - Week 4

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
1 (0)	1		1	1	1	1	1	1
	2		1	1	1	1	1	1
	3		1	1	1	1	1	1
	4		1	1	1	1	1	1
	5		1	1	1	1	1	1
2 (360)	11		1	1	1	1	1	1
	12		1	1	1	1	1	1
	13		1	1	1	1	1	1
	14		1	1	1	1	1	1
	15		1	1	1	1	1	1
3 (1190)	21		1	1	1	1	1	1
	22		1	1	1	1	1	1
	23		1	1	1	1	1	1
	24		1	1	1	1	1	1
	25		1	1	1	1	1	1
4 (3605)	31		1	1	1	1	1	1
	32		1	1	1	1	1	1
	33	r	0	1	1	1	1	1
	34		1	1	1	1	1	1
	35		1	1	1	1	1	1

r = no reflex on right eye

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Individual values - Week 4

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
1 (0)	1		1	1	1	1	1
	2		1	1	1	1	1
	3		1	1	1	1	1
	4		1	1	1	1	1
	5		1	1	1	1	1
2 (360)	11		1	1	1	1	1
	12		1	1	1	1	1
	13		1	1	1	1	1
	14		1	1	1	1	1
	15		1	1	1	1	1
3 (1190)	21		1	1	1	1	1
	22		1	1	1	1	1
	23		1	1	1	1	1
	24		1	1	1	1	1
	25		1	1	1	1	1
4 (3605)	31		1	1	1	1	1
	32		1	1	1	1	1
	33	r	1	1	1	1	0
	34		1	1	1	1	1
	35		1	1	1	1	1

r = no reflex on right eye

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Individual values - Week 4

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	PUPIL REFLEX	TOE PINCH REACT.	GRASP RESPONSE	GRIP STRENGTH	EYELID REFLEX	STARTLE RESPONSE
1 (0)	6	1	1	1	1	1	1
	7 d						
	8	1	1	1	1	1	1
	9	1	1	1	1	1	1
	10	1	1	1	1	1	1
2 (360)	16	1	1	1	1	1	1
	17	1	1	1	1	1	1
	18	1	1	1	1	1	1
	19	1	1	1	1	1	1
	20	1	1	1	1	1	1
3 (1190)	26	1	1	1	1	1	1
	27	1	1	1	1	1	1
	28	1	1	1	1	1	1
	29	1	1	1	1	1	1
	30	1	1	1	1	1	1
4 (3605)	36	1	1	1	1	1	1
	37	1	1	1	1	1	1
	138	1	1	1	1	1	1
	39	1	1	1	1	1	1
	40	1	1	1	1	1	1

d = unscheduled dead

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Stimuli-induced tests

Individual values - Week 4

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	HEAD SHAKE RESPONSE	RIGHTING REFLEX TABLE	RIGHTING REFLEX HAND	PLACING REFLEX	NEGA-TIVE GEOTAXIS
1 (0)	6	1	1	1	1	1
	7 d					
	8	1	1	1	1	1
	9	1	1	1	1	1
	10	1	1	1	1	1
2 (360)	16	1	1	1	1	1
	17	1	1	1	1	1
	18	1	1	1	1	1
	19	1	1	1	1	1
	20	1	1	1	1	1
3 (1190)	26	1	1	1	1	1
	27	1	1	1	1	1
	28	1	1	1	1	1
	29	1	1	1	1	1
	30	1	1	1	1	1
4 (3605)	36	1	1	1	1	1
	37	1	1	1	1	1
	138	1	1	1	1	1
	39	1	1	1	1	1
	40	1	1	1	1	1

d = unscheduled dead

Table 18 Body weight – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - Day of arrival to Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ON ARRIVAL	DAY -1	DAY 1	DAY 7	DAY 14	DAY 21	DAY 26	BODY WT GAIN DAY 1 TO DAY 26
1 (0)	1	156	213	223	275	324	361	371	148
	2	133	178	190	243	299	337	342	152
	3	135	194	201	242	302	355	365	164
	4	147	205	214	266	321	365	388	174
	5	152	206	213	251	293	329	329	116
2 (360)	11	133	187	197	249	302	352	364	167
	12	139	188	199	240	286	324	330	131
	13	153	218	227	281	335	379	392	165
	14	139	193	201	252	300	334	336	135
	15	150	206	219	272	331	368	385	166
3 (1190)	21	128	192	203	259	322	371	385	182
	22	135	199	212	265	324	372	380	168
	23	146	210	222	277	326	367	380	158
	24	146	206	217	263	314	354	369	152
	25	145	200	210	254	299	335	345	135
4 (3605)	31	157	210	198	243	307	335	346	148
	32	139	190	220	269	290	326	340	120
	33	131	196	210	266	321	377	382	172
	34	140	193	199	251	290	325	331	132
	35	145	212	222	228	281	339	366	144

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Body weight and body weight gain (g)

Individual values - Day of arrival to Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		ON ARRIVAL	DAY -1	DAY 1	DAY 7	DAY 14	DAY 21	DAY 26	BODY WT GAIN DAY 1 TO DAY 26
1 (0)	6		134	159	170	191	233	257	260	90
	7	d	137	166	178	190	219	236	d	d
	8		135	167	174	191	218	242	233	59
	9		126	162	167	181	217	246	259	92
	10		132	162	166	185	216	207	214	48
2 (360)	16		123	150	152	166	196	207	218	66
	17		140	175	182	215	229	260	276	94
	18		133	162	166	190	219	227	222	56
	19		124	159	163	188	221	231	228	65
	20		139	160	166	175	198	214	210	44
3 (1190)	26		137	169	173	191	208	230	234	61
	27		133	148	155	169	203	213	221	66
	28		123	150	158	179	195	217	221	63
	29		130	165	173	191	221	232	228	55
	30		135	174	176	199	235	242	254	78
4 (3605)	36		133	162	172	185	226	246	227	55
	37		141	164	169	189	205	226	215	46
	138		140	156	158	171	201	199	189	31
	39		139	177	184	208	225	254	254	70
	40		127	156	161	181	199	223	231	70

d = unscheduled dead

Table 19 Food consumption – Values per animal

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Food consumption (g)

Values per animal - Day -1 to Day 26

Males

GROUP (Dose mg TOS/kg bw)	CAGE NO	DAY -1 TO 7	DAY 7 TO 14	DAY 14 TO 21	DAY 21 TO 26	TOTAL, DAY -1 TO DAY 26
1 (0)	1	171.0	188.0	196.0	124.5	679.5
	2	164.3	180.0	196.0	129.3	669.6
2 (360)	5	166.5	180.5	195.0	118.5	660.5
	6	176.7	193.7	203.3	123.7	697.4
3 (1190)	9	187.0	204.0	216.0	130.5	737.5
	10	175.0	183.7	187.3	121.0	667.0
4 (3605)	13	165.5	184.0	188.5	114.5	652.5
	14	156.0	185.7	203.3	125.0	670.0

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Food consumption (g)

Values per animal - Day -1 to Day 26

Females

GROUP (Dose mg TOS/kg bw)		CAGE NO	DAY -1 TO 7	DAY 7 TO 14	DAY 14 TO 21	DAY 21 TO 26	TOTAL, DAY -1 TO DAY 26
1 (0)		3	137.5	145.5	148.5	D	D
	¤	4	.	259.7	135.7	82.7	478.1
2 (360)		7	131.0	144.0	137.0	98.5	510.5
		8	121.3	134.7	129.0	72.3	457.3
3 (1190)		11	118.5	125.5	131.5	77.0	452.5
		12	121.3	136.3	127.7	81.7	467.0
4 (3605)		15	122.0	136.5	144.0	76.5	479.0
		16	113.0	123.0	126.7	80.3	443.0

D = cage-mate unscheduled dead
¤ = food consumption from Day -1 to Day 14
. = not recorded in error

Table 20 Water consumption – Values per animal

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Water consumption (g)

Values per animal - Day -1 to Day 26

Males

GROUP (Dose mg TOS/kg bw)	CAGE NO	DAY -1 TO 2	DAY 2 TO 6	DAY 6 TO 9	DAY 9 TO 13	DAY 13 TO 16
1 (0)	1	59.5	125.5	.	134.5	106.0
	2	63.3	125.3	95.3	138.0	102.7
2 (360)	5	63.5	122.0	96.5	.	97.5
	6	61.0	130.7	100.7	146.3	109.3
3 (1190)	9	70.5	155.0	119.5	157.5	128.0
	10	64.7	139.7	109.0	155.7	113.3
4 (3605)	13	63.0	.	119.0	171.5	120.5
	14	69.7	147.0	109.7	.	160.3

. = problems with the bottle

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Water consumption (g)

Values per animal - Day -1 to Day 26

Males

GROUP (Dose mg TOS/kg bw)	CAGE NO	DAY 16 TO 20	DAY 20 TO 23	DAY 23 TO 26	TOTAL, DAY -1 TO DAY 26
1 (0)	1	140.5	107.0	117.5	.
	2	149.3	105.0	115.0	893.9
2 (360)	5	134.0	95.0	109.0	.
	6	156.0	117.0	117.7	938.7
3 (1190)	9	183.5	137.5	139.5	1091.0
	10	151.7	116.7	121.3	972.1
4 (3605)	13	162.0	125.5	128.5	.
	14	.	155.0	145.7	.

. = problems with the bottle

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Water consumption (g)

Values per animal - Day -1 to Day 26

Females

GROUP (Dose mg TOS/kg bw)	CAGE NO	DAY -1 TO 2	DAY 2 TO 6	DAY 6 TO 9	DAY 9 TO 13	DAY 13 TO 16
1 (0)	3	.	110.0	82.5	132.0	97.5
	4	53.0	103.0	80.0	116.7	93.3
2 (360)	7	47.5	111.0	93.5	121.5	72.0
	8	52.0	93.0	82.3	129.3	89.7
3 (1190)	11	47.0	94.5	70.5	103.5	80.5
	12	48.7	108.0	85.3	130.7	91.3
4 (3605)	15	59.5	141.0	97.5	148.5	109.0
	16	55.0	104.3	87.0	124.0	91.0

D = cage-mate unscheduled dead

. = problems with the bottle

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Water consumption (g)

Values per animal - Day -1 to Day 26

Females

GROUP (Dose mg TOS/kg bw)	CAGE NO	DAY 16 TO 20	DAY 20 TO 23	DAY 23 TO 26	TOTAL, DAY -1 TO DAY 26
1 (0)	3	129.5	96.5	D	D
	4	118.3	91.0	80.3	735.6
2 (360)	7	113.0	103.0	100.0	761.5
	8	109.7	83.0	75.0	714.0
3 (1190)	11	111.5	77.0	80.0	664.5
	12	118.3	91.7	89.3	763.3
4 (3605)	15	161.0	95.5	90.0	902.0
	16	120.7	94.7	86.3	763.0

D = cage-mate unscheduled dead

. = problems with the bottle

Table 21 Ophthalmoscopy – Individual findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Ophthalmoscopy

Individual findings

Group 1

Animal No/Sex	Before start of treatment	Before termination of treatment
1, male	No abnormal findings	No abnormal findings
2, male	No abnormal findings	No abnormal findings
3, male	No abnormal findings	No abnormal findings
4, male	No abnormal findings	No abnormal findings
5, male	No abnormal findings	No abnormal findings
6, female	Right eye: Persistence of hyaloid artery Left eye: No abnormal findings	No abnormal findings
7, female	No abnormal findings	Dead
8, female	No abnormal findings	No abnormal findings
9, female	No abnormal findings	No abnormal findings
10, female	No abnormal findings	No abnormal findings

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Ophthalmoscopy

Individual findings

Group 2

Animal No/Sex	Before start of treatment	Before termination of treatment
11, male	No abnormal findings	
12, male	No abnormal findings	
13, male	No abnormal findings	
14, male	No abnormal findings	
15, male	No abnormal findings	
16, female	No abnormal findings	
17, female	No abnormal findings	
18, female	No abnormal findings	
19, female	Right eye: Persistence of hyaloid artery Left eye: No abnormal findings	
20, female	No abnormal findings	

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Ophthalmoscopy

Individual findings

Group 3

Animal No/Sex	Before start of treatment	Before termination of treatment
21, male	No abnormal findings	
22, male	No abnormal findings	
23, male	No abnormal findings	
24, male	No abnormal findings	
25, male	No abnormal findings	
26, female	No abnormal findings	
27, female	No abnormal findings	
28, female	No abnormal findings	
29, female	No abnormal findings	
30, female	No abnormal findings	

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Ophthalmoscopy

Individual findings

Group 4

Animal No/Sex	Before start of treatment	Before termination of treatment
31, male	No abnormal findings	No abnormal findings
32, male	No abnormal findings	No abnormal findings
33, male	No abnormal findings	No abnormal findings
34, male	No abnormal findings	Right eye: Superficial corneal opacities. Small corneal scratch. Incidental finding Left eye: No abnormal findings
35, male	No abnormal findings	No abnormal findings
36, female	No abnormal findings	No abnormal findings
37, female	No abnormal findings	Both eyes: Slight central lenticular opacities
39, female	No abnormal findings	No abnormal findings
40, female	No abnormal findings	No abnormal findings
138, female	No abnormal findings	No abnormal findings

Table 22 Haematology – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	Hb	RBC	% RETIC	RETIC	HT	MCV	MCH
1 (0)	1	10.5	8.06	3.33	0.268	44	54	1.3
	2	8.9	8.50	2.77	0.235	49	58	1.0
	3	9.9	8.49	2.94	0.250	48	56	1.2
	4	9.5	8.10	2.99	0.242	46	56	1.2
	5	10.1	9.04	2.62	0.237	49	54	1.1
2 (360)	11	10.0	8.53	3.11	0.265	49	57	1.2
	12	10.0	8.30	2.72	0.226	48	58	1.2
	13	9.5	8.14	2.53	0.206	47	58	1.2
	14	10.0	8.64	2.22	0.192	49	56	1.2
	15	8.8	6.73	3.20	0.215	38	56	1.3
3 (1190)	21	9.1	8.29	3.96	0.328	48	58	1.1
	22	10.5	8.66	3.07	0.266	51	58	1.2
	23	9.6	8.49	3.15	0.268	47	55	1.1
	24	9.4	8.42	2.66	0.224	46	54	1.1
	25	10.1	9.04	2.83	0.256	50	55	1.1
4 (3605)	31	10.1	8.83	2.51	0.221	49	55	1.1
	32	9.8	8.35	2.94	0.245	47	56	1.2
	33	9.6	8.24	2.63	0.217	47	57	1.2
	34	9.7	7.96	2.89	0.231	46	58	1.2
	35	9.1	8.09	3.14	0.254	44	54	1.1

Abbreviations and units are explained in Table 3

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	MCHC	WBC #	% NEUTRO	NEUTRO, #	% LYMPHO	LYMPHO, #	% EOS	EOS, #
1 (0)	1	24.2		4		96		0	
	2	18.0		6		93		0	
	3	20.7		2		96		0	
	4	20.9		11		84		4	
	5	20.6		2		98		0	
2 (360)	11	20.5		7		93		0	
	12	20.6		4		96		0	
	13	20.3		9		91		0	
	14	20.5		1		99		0	
	15	23.5		2		98		0	
3 (1190)	21	18.9		2		98		0	
	22	20.7		7		93		0	
	23	20.7		6		93		1	
	24	20.5		6		94		0	
	25	20.3		3		96		1	
4 (3605)	31	20.8		4		95		1	
	32	20.9		10		89		1	
	33	20.4		8		90		2	
	34	21.1		11		88		0	
	35	20.6		4		96		0	

Abbreviations and units are explained in Table 3

= results doubtful and will not be reported

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	% BASO	BASO, #	% MONO	MONO, #	Plt, #	APTT	Pt	Fib
1 (0)	1	0		0			16.5	14.4	4.43
	2	0		1			16.7	15.3	2.61
	3	0		2			17.2	14.6	3.89
	4	0		1			11.7	14.6	2.69
	5	0		0			20.0	15.3	3.66
2 (360)	11	0		0			17.2	14.3	3.65
	12	0		0			17.5	14.7	4.07
	13	0		0			17.2	15.4	3.49
	14	0		0			14.4	14.3	3.70
	15	0		0			17.2	14.6	4.07
3 (1190)	21	0		0			13.4	14.4	4.08
	22	0		0			18.2	14.3	3.81
	23	0		0			16.7	14.3	3.68
	24	0		0			19.5	16.1	3.37
	25	0		0			19.2	14.7	4.13
4 (3605)	31	0		0			22.0	14.7	3.18
	32	0		0			14.4	14.3	3.54
	33	0		0			19.7	14.9	3.23
	34	0		1			14.7	14.6	3.43
	35	0		0			17.5	16.5	3.32

Abbreviations and units are explained in Table 3

= results doubtful and will not be reported

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		Hb	RBC	% RETIC	RETIC	HT	MCV	MCH
1 (0)	6		9.4	7.05	2.50	0.176	40	57	1.3
	7	d	10.5	8.61	3.12	0.269	50	58	1.2
	8		9.8	8.16	1.77	0.145	46	56	1.2
	9		9.5	7.78	2.77	0.216	44	57	1.2
	10		10.2	9.03	1.94	0.175	50	55	1.1
2 (360)	16		9.5	8.26	2.46	0.203	45	54	1.2
	17		9.0	7.55	2.70	0.204	42	56	1.2
	18		9.0	7.63	1.89	0.144	42	55	1.2
	19		9.3	8.02	1.51	0.122	42	53	1.2
	20		9.7	8.51	2.56	0.218	46	54	1.1
3 (1190)	26		9.0	6.88	1.91	0.131	39	56	1.3
	27		9.6	8.53	2.20	0.188	45	53	1.1
	28		9.7	8.10	1.88	0.152	46	57	1.2
	29		10.4	8.98	1.39	0.125	49	54	1.2
	30		9.9	8.25	2.69	0.222	46	56	1.2
4 (3605)	36		9.7	8.64	2.14	0.185	47	54	1.1
	37		8.9	8.15	2.80	0.228	42	52	1.1
	138		10.7	9.59	2.63	0.252	51	53	1.1
	39		10.2	8.81	2.37	0.209	48	54	1.2
	40		9.5	8.28	2.25	0.187	44	53	1.1

Abbreviations and units are explained in Table 3

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		MCHC	WBC #	% NEUTRO	NEUTRO, #	% LYMPHO	LYMPHO, #	% EOS	EOS, #
1 (0)	6		23.4		5		92		3	
	7	d	21.1	12.0	8	1.0	91	10.9	1	0.1
	8		21.3		4		96		0	
	9		21.5		5		93		2	
	10		20.4		10		88		1	
2 (360)	16		21.2		6		94		0	
	17		21.4		6		91		3	
	18		21.4		7		93		0	
	19		21.9		4		94		1	
	20		21.2		10		89		1	
3 (1190)	26		23.5		3		96		1	
	27		21.3		4		95		0	
	28		21.2		6		94		0	
	29		21.3		7		93		0	
	30		21.4		.		.		.	
4 (3605)	36		20.7		7		93		0	
	37		21.2		7		92		1	
	138		20.9		6		94		0	
	39		21.3		3		94		3	
	40		21.4		.		.		.	

Abbreviations and units are explained in Table 3

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis
# = results doubtful and will not be reported
. = not possible to measure

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Haematology

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		% BASO	BASO, #	% MONO	MONO, #	Plt, #	APTT	Pt	Fib
1 (0)	6		0		0			14.4	15.4	2.85
	7	d	0	0.0	0	0.0	668	20.7	16.2	2.76
	8		0		0			14.4	15.6	3.37
	9		0		0			15.9	15.6	3.58
	10		0		1			16.7	16.4	3.65
2 (360)	16		0		0			17.7	15.6	2.77
	17		0		0			18.0	15.6	3.12
	18		0		0			14.2	15.2	2.68
	19		0		1			12.7	15.3	3.36
	20		0		0			20.7	15.8	2.88
3 (1190)	26		0		0			15.2	15.6	2.80
	27		0		1			16.2	15.8	3.08
	28		0		0			16.5	15.6	2.73
	29		0		0			18.0	15.8	2.97
	30		.		.			13.4	15.6	3.28
4 (3605)	36		0		0			15.7	15.8	3.68
	37		0		0			16.7	16.1	2.58
	138		0		0			17.0	15.8	3.27
	39		0		0			15.2	15.4	3.32
	40		.		.			17.0	15.9	3.33

Abbreviations and units are explained in Table 3

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis
# = results doubtful and will not be reported
. = not possible to measure

Table 23 Clinical chemistry – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ALAT	ASAT	ALKPH	TBILI	GGT	CHOL	TRIG
1 (0)	1	0.96	1.19	4.40	0.7	<LOD	2.95	2.23
	2	1.26	1.91	3.70	1.1	<LOD	2.23	1.34
	3	0.70	1.29	4.94	0.7	0.07	1.91	1.52
	4	0.87	2.00	3.89	<LOD	0.05	2.29	2.00
	5	0.82	1.65	3.56	1.2	<LOD	1.79	1.38
2 (360)	11	0.74	1.28	3.32	<LOD	<LOD	2.41	1.10
	12	0.92	1.57	5.31	0.7	<LOD	2.04	1.36
	13	0.74	1.34	3.52	0.7	<LOD	1.81	1.18
	14	0.72	1.34	4.43	0.9	0.03	2.35	1.93
	15	0.87	1.38	4.36	1.0	<LOD	2.07	2.52
3 (1190)	21	1.15	1.67	4.08	0.6	<LOD	2.35	2.26
	22	0.84	1.35	4.64	0.9	<LOD	2.44	2.88
	23	0.83	1.53	4.03	1.4	0.04	1.95	1.76
	24	0.69	1.22	3.23	1.1	<LOD	1.99	1.05
	25	0.77	1.36	4.53	1.2	<LOD	2.08	1.36
4 (3605)	31	0.80	1.47	3.56	1.0	<LOD	2.37	1.39
	32	0.84	1.54	3.54	<LOD	<LOD	2.32	1.40
	33	0.68	1.26	5.46	0.7	<LOD	2.37	2.18
	34	0.71	1.49	3.21	0.7	<LOD	2.41	1.98
	35	0.64	1.28	4.01	0.5	0.03	1.93	1.61

Abbreviations and units are explained in Table 4

Limit of detection for TBILI = 0.5
Limit of detection for GGT = 0.03

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	UREA	CREAT	GLUC	Na	K	Ca	Mg
1 (0)	1	9.65	23	6.8	145.6	7.26	3.15	1.20
	2	7.65	16	7.4	144.5	6.63	2.97	1.13
	3	6.92	18	8.0	147.2	6.10	3.11	1.04
	4	7.80	20	7.5	144.2	6.77	3.02	1.02
	5	7.94	25	7.4	147.9	6.12	3.01	1.15
2 (360)	11	6.39	19	7.5	144.1	7.16	3.03	1.19
	12	8.00	18	7.4	145.4	6.74	3.04	1.19
	13	7.79	25	7.7	147.5	6.51	2.98	0.99
	14	8.21	19	6.8	149.6	6.26	3.05	1.09
	15	7.97	25	6.5	147.1	6.58	3.12	0.99
3 (1190)	21	8.91	21	7.7	146.9	6.52	3.06	1.15
	22	8.64	22	7.3	146.2	6.53	3.04	1.13
	23	8.22	20	7.8	145.8	7.06	3.03	1.06
	24	5.93	15	8.1	145.5	5.97	3.04	1.01
	25	8.22	18	11.3	148.0	5.19	3.30	1.18
4 (3605)	31	7.86	21	7.4	147.2	6.20	3.00	1.06
	32	9.15	21	8.6	142.8	6.25	3.05	1.09
	33	7.57	18	7.4	145.6	6.11	2.91	1.02
	34	7.92	20	7.5	145.1	6.53	3.06	1.06
	35	8.46	20	7.9	147.1	6.60	2.89	1.02

Abbreviations and units are explained in Table 4

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
1 (0)	1	2.97	95.2	67.6	44	23.6	1.86
	2	3.42	99.1	64.5	47	17.5	2.69
	3	3.13	97.9	66.5	46	20.5	2.24
	4	3.89	98.3	61.7	42	19.7	2.13
	5	3.27	99.5	65.6	46	19.6	2.35
2 (360)	11	3.53	98.3	65.5	45	20.5	2.20
	12	3.33	99.7	67.3	47	20.3	2.32
	13	3.25	98.4	61.0	43	18.0	2.39
	14	2.97	100.9	68.3	48	20.3	2.36
	15	2.93	98.3	69.2	47	22.2	2.12
3 (1190)	21	3.58	98.8	64.8	45	19.8	2.27
	22	2.93	97.9	66.2	46	20.2	2.28
	23	3.79	99.7	63.8	43	20.8	2.07
	24	3.27	97.1	65.8	45	20.8	2.16
	25	3.47	97.6	68.9	46	22.9	2.01
4 (3605)	31	2.78	98.4	61.9	45	16.9	2.66
	32	3.40	100.7	60.3	42	18.3	2.30
	33	2.63	100.9	58.2	42	16.2	2.59
	34	2.59	97.6	65.2	46	19.2	2.40
	35	2.90	102.0	60.8	42	18.8	2.23

Abbreviations and units are explained in Table 4

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		ALAT	ASAT	ALKPH	TBILI	GGT	CHOL	TRIG
1 (0)	6		0.72	1.47	3.14	0.8	<LOD	2.16	0.86
	7	d	0.51	1.39	2.98	1.1	0.05	3.05	1.02
	8		0.63	1.28	2.64	1.1	<LOD	2.62	1.00
	9		0.65	1.29	2.86	0.9	0.03	3.07	0.92
	10		0.77	1.38	3.51	0.9	0.04	2.47	1.20
2 (360)	16		0.65	1.53	4.33	<LOD	<LOD	2.01	0.63
	17		0.57	1.28	4.49	0.8	<LOD	2.36	0.75
	18		0.65	1.27	3.25	0.8	<LOD	1.63	0.98
	19		0.58	1.39	3.99	1.1	<LOD	2.45	0.99
	20		0.57	1.66	3.99	1.0	<LOD	1.93	0.52
3 (1190)	26		0.54	1.35	3.36	1.5	<LOD	1.60	0.74
	27		0.58	1.47	2.82	0.7	0.03	2.05	0.71
	28		0.65	1.20	3.18	0.5	0.05	2.73	1.23
	29		0.63	1.42	3.20	1.2	<LOD	2.07	0.77
	30		0.82	1.53	3.96	1.1	<LOD	2.20	1.11
4 (3605)	36		0.45	1.33	2.34	0.6	<LOD	1.90	0.57
	37		0.56	1.63	2.69	1.3	<LOD	2.46	0.61
	138		0.65	1.59	3.00	1.2	<LOD	2.53	0.92
	39		0.80	1.43	2.82	0.9	0.03	3.12	1.25
	40		0.73	1.54	2.56	1.0	<LOD	2.49	0.69

Abbreviations and units are explained in Table 4

Limit of detection for TBILI = 0.5
Limit of detection for GGT = 0.03

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		UREA	CREAT	GLUC	Na	K	Ca	Mg
1 (0)	6		5.73	22	7.2	142.4	6.19	2.92	1.11
	7	d	5.46	22	11.0	142.2	6.00	2.96	1.20
	8		5.68	13	7.5	143.5	6.09	3.00	1.06
	9		5.94	18	7.7	142.8	6.68	3.07	1.14
	10		6.52	19	6.8	146.1	6.81	3.02	1.23
2 (360)	16		7.40	18	7.1	146.5	6.39	2.98	1.12
	17		7.82	18	7.1	144.7	6.12	2.98	1.12
	18		5.77	20	7.3	145.6	6.00	2.84	1.04
	19		6.10	17	7.0	145.7	6.50	3.03	1.18
	20		6.48	20	7.4	145.8	6.23	2.91	1.18
3 (1190)	26		6.31	19	9.8	145.7	5.84	2.99	1.20
	27		7.06	21	7.0	145.0	6.37	3.00	1.14
	28		7.82	21	7.8	145.8	5.79	2.94	1.09
	29		7.81	21	7.3	145.0	6.19	3.00	1.06
	30		8.30	24	7.3	141.3	7.10	2.96	1.17
4 (3605)	36		7.24	19	7.3	144.3	9.00	1.93	0.66
	37		7.27	19	8.6	142.5	5.70	2.93	1.12
	138		8.82	18	6.8	144.0	7.18	3.03	1.19
	39		7.41	18	6.7	145.6	6.35	3.03	1.17
	40		6.87	23	8.1	143.4	5.98	2.95	1.03

Abbreviations and units are explained in Table 4

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Clinical chemistry

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		P	Cl	PROTEIN	ALB	GLOBULIN	ALB/G Ratio
1 (0)	6		3.20	97.7	61.0	44	17.0	2.59
	7	d	2.57	92.6	68.1	50	18.1	2.76
	8		3.00	98.1	69.5	51	18.5	2.76
	9		3.55	95.6	64.9	46	18.9	2.43
	10		3.54	97.9	65.7	47	18.7	2.51
2 (360)	16		3.35	99.2	61.3	46	15.3	3.01
	17		3.14	97.8	61.9	45	16.9	2.66
	18		2.84	100.4	59.6	43	16.6	2.59
	19		2.71	98.9	66.3	46	20.3	2.27
	20		2.83	98.3	64.6	48	16.6	2.89
3 (1190)	26		3.11	99.5	59.6	43	16.6	2.59
	27		3.15	97.9	65.1	48	17.1	2.81
	28		2.54	99.6	64.2	47	17.2	2.73
	29		2.70	95.8	64.5	45	19.5	2.31
	30		3.11	95.7	64.0	46	18.0	2.56
4 (3605)	36		2.99	99.7	64.2	46	18.2	2.53
	37		3.26	99.4	65.9	50	15.9	3.14
	138		2.86	99.6	68.2	49	19.2	2.55
	39		2.95	98.7	66.5	48	18.5	2.59
	40		3.02	97.9	59.2	44	15.2	2.89

Abbreviations and units are explained in Table 4

d = unscheduled dead, measured Day 22
- results excluded from statistical analysis

Table 24 Urinalysis – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	VOLUME	SPECIFIC GRAVITY	pH	COLOUR	PROTEIN	LEUCO-CYTES
1 (0)	1	16	1.020	7.5	ly	≥3.0	500
	2	16	1.015	8.0	ly	Trace	15
	3	12	1.020	7.0	y	0.3	15
	4	15	1.015	8.5	y	0.3	15
	5	11	1.015	7.5	ly	0.3	15
2 (360)	11	15	1.020	7.0	y	0.3	70
	12	11	1.020	6.5	y	Trace	15
	13	23	1.015	7.5	ly	Trace	15
	14	11	1.020	7.0	ly	Trace	15
	15	26	1.015	7.5	ly	Trace	70
3 (1190)	21	18	1.015	7.0	ly	Trace	15
	22	19	1.015	7.0	ly	1.0	70
	23	18	1.020	7.0	ly	Trace	70
	24	14	1.020	7.0	y	0.3	70
	25	18	1.015	6.5	ly	Trace	70
4 (3605)	31	19	1.015	6.5	ly	Trace	15
	32	14	1.025	6.5	y	0.3	70
	33	23	1.020	7.0	ly	0.3	70
	34	8	≥1.030	6.0	y	1.0	70
	35	15	1.025	7.5	y	Trace	15

ly = light yellow y = yellow

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	NITRITE	BLOOD	GLUCOSE	KETONES	BILI-RUBIN	UROBILI-NOGEN
1 (0)	1	+	-	-	Trace	-	3.2
	2	+	-	-	Trace	-	3.2
	3	-	-	-	Trace	-	3.2
	4	-	-	-	Trace	-	3.2
	5	+	-	-	1.5	-	3.2
2 (360)	11	-	-	-	Trace	-	3.2
	12	+	-	-	1.5	-	3.2
	13	+	-	-	Trace	-	3.2
	14	-	-	-	Trace	-	3.2
	15	-	-	-	Trace	-	3.2
3 (1190)	21	-	-	-	Trace	-	3.2
	22	-	-	-	-	-	3.2
	23	-	-	-	Trace	-	3.2
	24	-	-	-	1.5	-	3.2
	25	-	-	-	Trace	-	3.2
4 (3605)	31	-	-	-	Trace	-	3.2
	32	-	-	-	Trace	-	3.2
	33	-	-	-	Trace	-	3.2
	34	-	-	-	Trace	-	3.2
	35	-	-	-	Trace	-	3.2

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	VOLUME	SPECIFIC GRAVITY	pH	COLOUR	PROTEIN	LEUCO-CYTES
1 (0)	6	24	1.010	7.0	ly	-	15
	7 d						
	8	9	1.015	7.0	y	0.3	70
	9	24	1.010	7.0	ly	-	-
	10	9	1.015	7.5	y	-	-
2 (360)	16	7	1.020	7.0	y	Trace	-
	17	16	1.020	7.5	ly	Trace	15
	18	15	1.010	7.0	ly	-	-
	19	6	1.020	6.5	y	0.3	15
	20	15	1.015	7.0	ly	-	-
3 (1190)	26	9	1.015	6.5	ly	-	15
	27	6	1.020	7.0	y	Trace	-
	28	23	1.010	6.5	ly	-	15
	29	7	1.025	6.5	y	Trace	15
	30	21	1.010	6.5	ly	-	-
4 (3605)	36	14	1.020	7.0	y	Trace	15
	37	8	≥1.030	7.0	dy	Trace	15
	138	6	≥1.030	6.5	dy	Trace	-
	39	17	1.015	7.0	ly	Trace	70
	40	21	1.015	6.5	ly	-	-

ly = light yellow y = yellow dy = dark yellow

d = unscheduled dead

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	NITRITE	BLOOD	GLUCOSE	KETONES	BILI-RUBIN	UROBILI-NOGEN
1 (0)	6	-	-	-	-	-	3.2
	7 d						
	8	-	-	-	Trace	-	3.2
	9	-	-	-	-	-	3.2
	10	-	-	-	-	-	3.2
2 (360)	16	-	-	-	-	-	3.2
	17	-	-	-	-	-	3.2
	18	-	-	-	-	-	3.2
	19	-	-	-	-	-	3.2
	20	-	-	-	-	-	3.2
3 (1190)	26	-	-	-	-	-	3.2
	27	-	-	-	Trace	-	3.2
	28	-	-	-	-	-	3.2
	29	-	-	-	-	-	3.2
	30	-	-	-	-	-	3.2
4 (3605)	36	-	-	-	-	-	3.2
	37	-	-	-	-	-	3.2
	138	-	-	-	Trace	-	3.2
	39	-	-	-	-	-	3.2
	40	-	-	-	-	-	3.2

d = unscheduled dead

Table 25 Urinalysis – Microscopy – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Individual values - At termination of treatment

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ERYTH-RO-CYTES	LEUCO-CYTES	EPI-THE-LIAL CELLS	CRYS-TALS	U-RATES	HYA-LINE CASTS	GRAN-ULAR CASTS	BAC-TERIA
1 (0)	1	-	-	-	++	+	-	-	+++
	2	-	-	-	+++	+	-	-	+++
	3	-	-	(+)	++	+	-	-	++
	4	(+)	-	(+)	++	+	-	-	++
	5	(+)	(+)	+	++	++	-	-	+++
2 (360)	11	-	(+)	(+)	++	+	-	-	++
	12	-	-	+	+++	+	-	-	+++
	13	-	-	(+)	+++	(+)	-	-	+++
	14	-	-	+	++	+	-	-	++
	15	-	-	-	++	(+)	-	-	++
3 (1190)	21	-	-	-	++	(+)	-	-	++
	22	(+)	-	+	++	-	-	-	++
	23	-	-	(+)	++	+	-	-	++
	24	(+)	-	+	++	+	-	-	++
	25	-	-	(+)	++	+	-	-	+++
4 (3605)	31	-	-	(+)	+	(+)	-	-	++
	32	-	-	-	(+)	-	-	-	++
	33	-	-	(+)	++	(+)	-	-	++
	34	-	-	-	+	-	-	-	++
	35	-	-	+	++	-	-	-	++

Abbreviations and units are explained in Table 5

- = no trace (+) = traces + = slight ++ = moderate +++ = marked

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Urinalysis - Microscopy

Individual values - At termination of treatment

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ERYTH-RO-CYTES	LEUCO-CYTES	EPI-THE-LIAL CELLS	CRYS-TALS	U-RATES	HYA-LINE CASTS	GRAN-ULAR CASTS	BAC-TERIA
1 (0)	6	-	-	(+)	(+)	-	-	-	++
	7 d								
	8	-	-	+	++	+	-	-	++
	9	-	-	(+)	(+)	-	-	-	+++
	10	-	-	+	++	(+)	-	-	++
2 (360)	16	-	-	(+)	++	-	-	-	++
	17	-	-	-	++	++	-	-	++
	18	-	-	-	++	+	-	-	++
	19	-	-	(+)	++	(+)	-	-	++
	20	-	-	-	++	(+)	-	-	+++
3 (1190)	26	-	-	(+)	++	(+)	-	-	++
	27	-	-	+	+	-	-	-	++
	28	-	-	-	+	+	-	-	+++
	29	-	(+)	(+)	+	-	-	-	++
	30	-	-	+	++	+	-	-	+++
4 (3605)	36	-	(+)	(+)	++	-	-	-	++
	37	-	-	(+)	+	(+)	-	-	++
	138	-	-	-	+	+	-	-	+
	39	-	-	-	(+)	(+)	-	-	+
	40	(+)	-	-	(+)	(+)	-	-	+

Abbreviations and units are explained in Table 5

- = no trace (+) = traces + = slight ++ = moderate +++ = marked

d = unscheduled dead

Table 26 Organ weight – Individual values

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ADRENALS	BRAIN	EPIDI-DYMIDES	HEART	KIDNEYS
1 (0)	1	50	2143	868	1349	2805
	2	42	2147	814	1638	2865
	3	58	2102	773	1274	2862
	4	72	2272	948	1467	3326
	5	66	2149	841	1125	2173
2 (360)	11	47	2184	877	1478	2993
	12	58	2046	735	1420	2800
	13	47	2115	1054	1454	2732
	14	58	2117	949	1341	2550
	15	57	2121	888	1448	2841
3 (1190)	21	53	2135	850	1528	2811
	22	56	2219	910	1576	3016
	23	65	2189	1056	1382	2882
	24	61	2078	844	1457	3085
	25	57	2142	886	1220	2763
4 (3605)	31	50	2155	910	1558	2860
	32	56	2051	971	1370	2644
	33	65	2212	804	1825	3187
	34	27a	1982	773	1575	2540
	35	70	2045	772	1431	2896

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	LIVER	PROSTATE	SEMINAL VESICLES	SPLEEN	TESTES	THYMUS
1 (0)	1	17429	534	610	893	3164	682
	2	17204	529	1092	872	3324	710
	3	18585	390	1044	910	2993	752
	4	20139	544	1532	1135	3383	670
	5	12777	551	1117	750	3144	532
2 (360)	11	19702	510	1185	1140	3350	911
	12	15124	315	990	781	3156	596
	13	17474	406	1177	903	3654	854
	14	13872	391	1084	921	3745	505
	15	17468	413	1445	1066	3798	827
3 (1190)	21	19819	394	1069	881	3464	852
	22	19121	326	1172	1017	3961	778
	23	16856	618	1252	970	3305	612
	24	17376	419	1224	1003	3569	726
	25	15610	394	1349	835	3482	709
4 (3605)	31	16847	434	1411	839	3670	662
	32	17516	457	1470	768	3081	604
	33	17337	470	1155	918	3809	723
	34	15785	355	857	1061	3556	635
	35	17405	360	1041	1225	3397	868

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of body wt) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	BODY WT, g	ADRENALS	BRAIN	EPIDI-DYMIDES	HEART	KIDNEYS
1 (0)	1	371	0.0135	0.578	0.234	0.364	0.756
	2	342	0.0123	0.628	0.238	0.479	0.838
	3	365	0.0159	0.576	0.212	0.349	0.784
	4	388	0.0186	0.586	0.244	0.378	0.857
	5	329	0.0201	0.653	0.256	0.342	0.660
2 (360)	11	364	0.0129	0.600	0.241	0.406	0.822
	12	330	0.0176	0.620	0.223	0.430	0.848
	13	392	0.0120	0.540	0.269	0.371	0.697
	14	336	0.0173	0.630	0.282	0.399	0.759
	15	385	0.0148	0.551	0.231	0.376	0.738
3 (1190)	21	385	0.0138	0.555	0.221	0.397	0.730
	22	380	0.0147	0.584	0.239	0.415	0.794
	23	380	0.0171	0.576	0.278	0.364	0.758
	24	369	0.0165	0.563	0.229	0.395	0.836
	25	345	0.0165	0.621	0.257	0.354	0.801
4 (3605)	31	346	0.0145	0.623	0.263	0.450	0.827
	32	340	0.0165	0.603	0.286	0.403	0.778
	33	382	0.0170	0.579	0.210	0.478	0.834
	34	331	0.0082a	0.599	0.234	0.476	0.767
	35	366	0.0191	0.559	0.211	0.391	0.791

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of body wt) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	LIVER	PROSTATE	SEMINAL VESICLES	SPLEEN	TESTES	THYMUS
1 (0)	1	4.70	0.144	0.164	0.241	0.853	0.184
	2	5.03	0.155	0.319	0.255	0.972	0.208
	3	5.09	0.107	0.286	0.249	0.820	0.206
	4	5.19	0.140	0.395	0.293	0.872	0.173
	5	3.88	0.167	0.340	0.228	0.956	0.162
2 (360)	11	5.41	0.140	0.326	0.313	0.920	0.250
	12	4.58	0.095	0.300	0.237	0.956	0.181
	13	4.46	0.104	0.300	0.230	0.932	0.218
	14	4.13	0.116	0.323	0.274	1.115	0.150
	15	4.54	0.107	0.375	0.277	0.986	0.215
3 (1190)	21	5.15	0.102	0.278	0.229	0.900	0.221
	22	5.03	0.086	0.308	0.268	1.042	0.205
	23	4.44	0.163	0.329	0.255	0.870	0.161
	24	4.71	0.114	0.332	0.272	0.967	0.197
	25	4.52	0.114	0.391	0.242	1.009	0.206
4 (3605)	31	4.87	0.125	0.408	0.242	1.061	0.191
	32	5.15	0.134	0.432	0.226	0.906	0.178
	33	4.54	0.123	0.302	0.240	0.997	0.189
	34	4.77	0.107	0.259	0.321	1.074	0.192
	35	4.76	0.098	0.284	0.335	0.928	0.237

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	ADRENALS	EPIDI-DYMIDES	HEART	KIDNEYS
1 (0)	1	2.33	40.5	62.9	130.9
	2	1.96	37.9	76.3	133.4
	3	2.76	36.8	60.6	136.2
	4	3.17	41.7	64.6	146.4
	5	3.07	39.1	52.3	101.1
2 (360)	11	2.15	40.2	67.7	137.0
	12	2.83	35.9	69.4	136.9
	13	2.22	49.8	68.7	129.2
	14	2.74	44.8	63.3	120.5
	15	2.69	41.9	68.3	133.9
3 (1190)	21	2.48	39.8	71.6	131.7
	22	2.52	41.0	71.0	135.9
	23	2.97	48.2	63.1	131.7
	24	2.94	40.6	70.1	148.5
	25	2.66	41.4	57.0	129.0
4 (3605)	31	2.32	42.2	72.3	132.7
	32	2.73	47.3	66.8	128.9
	33	2.94	36.3	82.5	144.1
	34	1.36a	39.0	79.5	128.2
	35	3.42	37.8	70.0	141.6

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values - Day 26

Males

GROUP (Dose mg TOS/kg bw)	ANIMAL NO	LIVER	PROSTATE	SEMINAL VESICLES	SPLEEN	TESTES	THYMUS
1 (0)	1	813.3	24.9	28.5	41.7	147.6	31.8
	2	801.3	24.6	50.9	40.6	154.8	33.1
	3	884.2	18.6	49.7	43.3	142.4	35.8
	4	886.4	23.9	67.4	50.0	148.9	29.5
	5	594.6	25.6	52.0	34.9	146.3	24.8
2 (360)	11	902.1	23.4	54.3	52.2	153.4	41.7
	12	739.2	15.4	48.4	38.2	154.3	29.1
	13	826.2	19.2	55.7	42.7	172.8	40.4
	14	655.3	18.5	51.2	43.5	176.9	23.9
	15	823.6	19.5	68.1	50.3	179.1	39.0
3 (1190)	21	928.3	18.5	50.1	41.3	162.2	39.9
	22	861.7	14.7	52.8	45.8	178.5	35.1
	23	770.0	28.2	57.2	44.3	151.0	28.0
	24	836.2	20.2	58.9	48.3	171.8	34.9
	25	728.8	18.4	63.0	39.0	162.6	33.1
4 (3605)	31	781.8	20.1	65.5	38.9	170.3	30.7
	32	854.0	22.3	71.7	37.4	150.2	29.4
	33	783.8	21.2	52.2	41.5	172.2	32.7
	34	796.4	17.9	43.2	53.5	179.4	32.0
	35	851.1	17.6	50.9	59.9	166.1	42.4

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		ADRENALS	BRAIN	HEART	KIDNEYS
1 (0)	6		67	2090	1153	1955
	7	d	101	1990	937	1912
	8		51	1949	942	1906
	9		87	1972	1010	1927
	10		89	2070	1064	1719
2 (360)	16		70	1884	975	1809
	17		81	2104	1129	2041
	18		72	1961	1059	1765
	19		62	2011	984	1716
	20		91	1961	1005	1793
3 (1190)	26		35a	1888	983	1824
	27		63	2014	942	1752
	28		61	1860	882	1723
	29		78	2111	1254	2005
	30		69	2080	1087	1938
4 (3605)	36		88	2151	1077	1990
	37		78	2080	847	1831
	138		63	1834	887	1522
	39		83	2004	1020	2104
	40		63	1910	896	1623

d = unscheduled dead
- results excluded from statistical analysis

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Absolute (mg) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1 (0)	6		11053	83	772	699	318
	7	d	9342	137	527	1068	609
	8		10054	108	476	472	460
	9		11083	120	758	661	741
	10		8689	105	584	372	585
2 (360)	16		9081	83	665	482	377
	17		12078	96	982	581	494
	18		9493	88	689	436	493
	19		10530	109	797	534	555
	20		8859	100	608	465	527
3 (1190)	26		9224	94	573	446	663
	27		9244	118	664	547	464
	28		10289	86	616	478	786
	29		10041	110	813	412	432
	30		10508	106	755	635	394
4 (3605)	36		10478	116	705	619	544
	37		8902	83	734	366	588
	138		7719	102	469	355	612
	39		11087	128	695	520	589
	40		9063	91	688	522	543

d = unscheduled dead
- results excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of body wt) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		BODY WT, g	ADRENALS	BRAIN	HEART	KIDNEYS
1 (0)	6		260	0.0258	0.804	0.443	0.752
	7	d	218	0.0463	0.913	0.430	0.877
	8		233	0.0219	0.836	0.404	0.818
	9		259	0.0336	0.761	0.390	0.744
	10		214	0.0416	0.967	0.497	0.803
2 (360)	16		218	0.0321	0.864	0.447	0.830
	17		276	0.0293	0.762	0.409	0.739
	18		222	0.0324	0.883	0.477	0.795
	19		228	0.0272	0.882	0.432	0.753
	20		210	0.0433	0.934	0.479	0.854
3 (1190)	26		234	0.0150a	0.807	0.420	0.779
	27		221	0.0285	0.911	0.426	0.793
	28		221	0.0276	0.842	0.399	0.780
	29		228	0.0342	0.926	0.550	0.879
	30		254	0.0272	0.819	0.428	0.763
4 (3605)	36		227	0.0388	0.948	0.474	0.877
	37		215	0.0363	0.967	0.394	0.852
	138		189	0.0333	0.970	0.469	0.805
	39		254	0.0327	0.789	0.402	0.828
	40		231	0.0273	0.827	0.388	0.703

d = unscheduled dead
- results excluded from statistical analysis

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of body wt) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1 (0)	6		4.25	0.0319	0.297	0.269	0.122
	7	d	4.29	0.0628	0.242	0.490	0.279
	8		4.32	0.0464	0.204	0.203	0.197
	9		4.28	0.0463	0.293	0.255	0.286
	10		4.06	0.0491	0.273	0.174	0.273
2 (360)	16		4.17	0.0381	0.305	0.221	0.173
	17		4.38	0.0348	0.356	0.211	0.179
	18		4.28	0.0396	0.310	0.196	0.222
	19		4.62	0.0478	0.350	0.234	0.243
	20		4.22	0.0476	0.290	0.221	0.251
3 (1190)	26		3.94	0.0402	0.245	0.191	0.283
	27		4.18	0.0534	0.300	0.248	0.210
	28		4.66	0.0389	0.279	0.216	0.356
	29		4.40	0.0482	0.357	0.181	0.189
	30		4.14	0.0417	0.297	0.250	0.155
4 (3605)	36		4.62	0.0511	0.311	0.273	0.240
	37		4.14	0.0386	0.341	0.170	0.273
	138		4.08	0.0540	0.248	0.188	0.324
	39		4.36	0.0504	0.274	0.205	0.232
	40		3.92	0.0394	0.298	0.226	0.235

d = unscheduled dead
- results excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		ADRENALS	HEART	KIDNEYS
1 (0)	6		3.21	55.2	93.5
	7	d	5.08	47.1	96.1
	8		2.62	48.3	97.8
	9		4.41	51.2	97.7
	10		4.30	51.4	83.0
2 (360)	16		3.72	51.8	96.0
	17		3.85	53.7	97.0
	18		3.67	54.0	90.0
	19		3.08	48.9	85.3
	20		4.64	51.2	91.4
3 (1190)	26		1.85a	52.1	96.6
	27		3.13	46.8	87.0
	28		3.28	47.4	92.6
	29		3.69	59.4	95.0
	30		3.32	52.3	93.2
4 (3605)	36		4.09	50.1	92.5
	37		3.75	40.7	88.0
	138		3.44	48.4	83.0
	39		4.14	50.9	105.0
	40		3.30	46.9	85.0

d = unscheduled dead
- results excluded from statistical analysis

a = only weight of one adrenal - result excluded from statistical analysis

SP387/TL1

A 25-Day Oral (Gavage) Toxicity Study in Rats

Relative (% of brain wt) organ weight

Individual values - Day 26

Females

GROUP (Dose mg TOS/kg bw)	ANIMAL NO		LIVER	OVARIES	SPLEEN	THYMUS	UTERUS
1 (0)	6		528.9	3.97	36.9	33.4	15.2
	7	d	469.4	6.88	26.5	53.7	30.6
	8		515.9	5.54	24.4	24.2	23.6
	9		562.0	6.09	38.4	33.5	37.6
	10		419.8	5.07	28.2	18.0	28.3
2 (360)	16		482.0	4.41	35.3	25.6	20.0
	17		574.0	4.56	46.7	27.6	23.5
	18		484.1	4.49	35.1	22.2	25.1
	19		523.6	5.42	39.6	26.6	27.6
	20		451.8	5.10	31.0	23.7	26.9
3 (1190)	26		488.6	4.98	30.3	23.6	35.1
	27		459.0	5.86	33.0	27.2	23.0
	28		553.2	4.62	33.1	25.7	42.3
	29		475.7	5.21	38.5	19.5	20.5
	30		505.2	5.10	36.3	30.5	18.9
4 (3605)	36		487.1	5.39	32.8	28.8	25.3
	37		428.0	3.99	35.3	17.6	28.3
	138		420.9	5.56	25.6	19.4	33.4
	39		553.2	6.39	34.7	25.9	29.4
	40		474.5	4.76	36.0	27.3	28.4

d = unscheduled dead
- results excluded from statistical analysis

Appendix I Documentation and Stability of Test Material (3 pages, incl. this cover page)

novozymes
Rethink Tomorrow

Toxicology

Date: March 11, 2011
Project no.: DIS 00829
Luna: 2011-02913-01
Ref.: KM

Documentation of Test Material

Product:	**TOX BATCH**
Batch:	**PPF 32126**
Type of enzyme:	**SP387/TL1**
Host organism:	**Fusarium venenatum**
Physical form / Colour:	**Brown liquid at room temperature**
E.C.:	**3.4.21.4**

Activity:	**340 KMTU/g**
Water (KF):	**62.5 % w/w**
Dry matter:	**37.5 % w/w**
Ash (600°C):	**6.9 % w/w**
Total Organic Solids (TOS):	**30.6 % w/w**
Specific gravity (g/ml):	**1.178 g/ml**
pH:	**6.1**
Total viable counts/g:	**100**

[redacted]

Study Director

Memo

novozymes®
Rethink Tomorrow

To:
[redacted], Study Director at LabReserach

JLIC
2011-02913-01
March 11, 2011

Copy:
QA, Novozymes

From:
JLIC

RE: Stability of SP 387/TL1, batch PPF 32126

The toxbatch, PPF 26813, was previously used in a 13 weeks oral toxicity study in rats (20076021, Luna 2008-07714-01). The enzyme activity was 117 KMTU/g. Following an evaporation process the concentration of the toxbatch was increased by a factor 3 simply by reducing the water content of the batch.

This concentrated batch was assigned the batch number PPF 32126 and the activity was measured to be 340 KMTU/g.

In the characterization report of the toxbatch PPF 26813 (Luna 2007-16317-01) the stability of the enzyme activity was investigated. Based on this investigation it can be concluded that the test concentrations are stable for at least 96 hours at room temperature.

It is considered reasonable to assume that the same stability will apply for PPF 32126 when taken into concentration that the batch is completely the same as PPF 26813 apart from the water content that has been partly removed by evaporation. There is no reason to believe that the stability will change by reducing the water content of the batch.

[redacted]
Science Manager, Department of Toxicology

Novozymes A/S
Krogshøjvej 36
DK-2880 Bagsværd
Denmark

Telephone:
+45 4446 0000
Telefax:

E-mail:

Internet:
www.novozymes.com

CVR number:
10 00 71 27

Appendix II Analysis of Dose Formulations (14 pages, incl. this cover page)

Novozymes A/S
Process Support Laboratories
Enzyme Chemical Laboratory

DNJ
2011-06-01
Luna No. 2011-17433-01

LAB Research Study No.: 73488
Novozymes Reference No.: 20116015

Principal Investigation Report

Study Title: SP 387/TL1. A 25-Day Oral (gavage) Toxicity Study in Rats.

Analysis of samples returned from LAB Research

Contents

Page

1 GLP Compliance

The investigation is performed in compliance with the OECD's principles of Good Laboratory Practice, ENV/MC/CHEM(98)17.

Date: 1. Juni 2011 **Signature:** [redacted]

Principal Investigator

2 Quality Assurance Statement

QUALITY ASSURANCE STATEMENT

REPORT:	SP 387/TL1, batch PPF 32126. A 28-Day Oral (Gavage) Toxicity Study in Rats. - Analysis of samples returned from LAB Rech
STUDY NUMBER	73488
NZ REFERENCE NUMBER	20116015

The conduct of this study has been subject to appropriate inspections and the report has been reviewed according to the relevant Standard Operation Procedures of Novozymes A/S Quality Assurance.

Inspection/Audit	Dates of inspection	Inspection results reported to Study Director and Study Management
Main activity ; KMTU/g	11 MAY 2011	12 MAY 2011
Report	26 MAY 2011	26 MAY 2011

I hereby confirm that the report reflects the raw data.

1. June 2011
Date

[redacted]
Quality Assurance

3 General Information

Principal Investigator:

[redacted]
Enzyme Chemical Laboratory
Process Support Laboratories
Novozymes A/S
Krogshøjvej 36, DK-2880 Bagsværd
Denmark
[redacted]

Sponsor Monitor:

[redacted]
Toxicology
Novozymes A/S
Krogshøjvej 36, DK-2880 Bagsværd
Denmark
[redacted]

Study Director:

[redacted]
LAB Research (Scantox)
Hestehavevej 36A
DK-4623 Lille Skensved
Denmark
[redacted]

Personnel: Laboratory Technician Novozymes: Said Dahmani (Said)

Laboratory:

Enzyme Analytical Laboratory (EKL)
Process Support Laboratories
Novozymes A/S
Krogshøjvej 36, DK-2880 Bagsværd
Denmark

4 Purpose

The samples for the present investigation are dose solutions of SP 387/TL1, batch PPF 32126.

The purpose of this Investigation is determine whether the enzyme activity of Microbial Trypsin, SP387 (KMTU/g) in dose solution from week 1 complies with the enzyme activity of the toxbatch.

Content check analysis is required as part of the OECD guideline for oral toxicity studies (OECD TG # 408).

5 Sample Handling

Sample sampling

During the study 24 samples were taken out for analysis of activity:
There are four groups:

- High activity (approx. 100 %)
- Medium activity (approx. 33 %)
- Low activity (approx. 10 %)
- Control group (approx. 0 %)

During Week 1, two (2) sets of triplicate (3) samples (6 samples in total) each of 10 ml of the four dose formulations were collected in a Nunc tube and stored frozen at approximately −18°C. One (1) set of triplicate samples are stored at LAB Research (Scantox) until the PI report is finalised and can thereafter be discarded, if nothing else is agreed upon.
One (1) set of triplicate samples are sent to the Sponsor Monitor and then transferred to PI at Novozymes A/S for analysis.

Samples of dose formulations Sampling occasion	Sampling volume	Sample container	Nominal concentration (%)		Number of samples*	Shipping date
Week 1	10 mL	Nunc tube	0		2 sets of 3 (total 6)	Nos 1-3: End of in life phase
			10	2 sets of 3 (total 6)		
			33	2 sets of 3 (total 6)		
			100	2 sets of 3 (total 6)		
Total			2x12 samples			

Only the samples labelled "1" were analysed More details about the schedule for the analytical phase are found in the current version of PSL-SP-0107.01-D.

Expected activities:

High activity (approx. 100 %) contains:	340	KMTU/g
Medium activity (approx. 33 %) contains:	112	KMTU/g
Low activity (approx. 10 %) contains:	34	KMTU/g
Control group (approx. 0 %) contains:	0	KMTU/g

Sample Transportation and Registration

Samples from LAB Research were sent directly to the department of Toxicology in Novozymes A/S where the samples were registered. The samples were stored frozen (-18 °C) by Toxicology until transfer to EKL for analysis.

The 12 samples marked "1" was received 2011-05-05 at EKL.

Storage of Samples for Analysis

After registration in EKL the samples were stored frozen (-18 °C) until analysis.

Sample Defrost

All 12 samples labelled "1" were defrosted at room temperature approx. 30 min. before analysis on 2011-05-11.

Date of Analysis

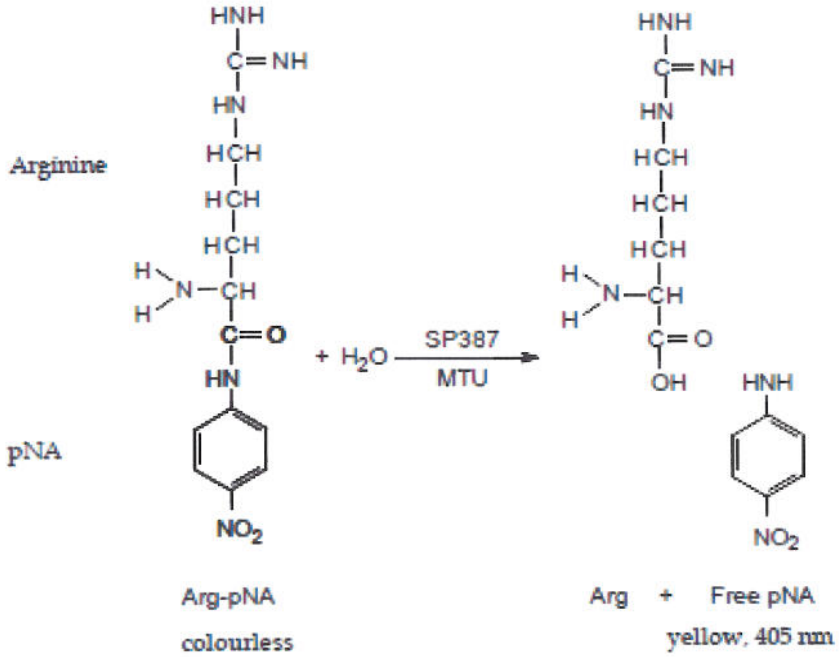
Analyses of all 12 samples labelled "1" were conducted at 2011-05-11.

6 Method

The analysis was performed according to PSL-SM-0706.01-D version 19.0.

Microbial Trypsin activity by Konelab (KMTU)

Microbial trypsin hydrolyses the chromophoric substrate Ac-Arg-***p***-**n**itro-**a**nilide (Ac-Arg-pNA). The liberated pNA produces an absorption increase at 405 nm, which is proportional to enzyme activity. The reaction proceeds auto-matically in Konelab as shown below.



One KMTU (Kilo Microbial Trypsin Unit) is defined relatively to an enzyme standard, originally declared by its numerical LVU value (EB-SM-0001) under the conditions given in this method.
Basically, the activity is related to the amount of enzyme that produces 1 □mole p-nitroaniline per minute.

The samples were analysed as *2 weighings on 1 standard curve* as specified for GLP samples in PSL-SP-0598.01-D version 4.

The control samples were analysed as *1 weighing on 1 standard curve* as specified for control samples in PSL-SP-0107.01-D version 9.

7 Comments

In the original plan, an additional set of samples from week 4 should have been taken and analyzed, however, as described in amendments to the study plan from the study director, the sample material became short of stock before week 4 samples could be taken. This means that results from week 4 are missing in this report.

8 Results and discussion

The results were evaluated according to PSL-SP-0107.01-D - version 9.

All calculations were carried out using the work sheet, PSL-AS-0022 version 3.0

Results for the 12 analysed samples:

Table 1. Analysis results of each sample for the dose groups High, Medium and Low given in KMTU/g. Non-existing results are marked with '-'.

Week	Sample No.	High	Medium	Low
1	1	342	125	40.4
	2	-	-	-
	3	-	-	-

No activity above the detection limit was found for the Control group.

Investigation of the activity during the study for groups High, Medium and Low:

Table 2. Mean activity (KMTU/g) per group for groups High, Medium and Low.

Group High	Group Medium	Group Low
342	125	40.4

Table 3. Theoretical estimate (KMTU/g) per group for Medium and Low calculated from result of groups High by division with 3 and 10:

Group High	Group Medium	Group Low
340	114	34.2

It appears that results are further away from the tox batch estimate for the 33 and 10 % groups than for the 100% group high. This is caused by analytical and sampling variation but the results are not markedly different from the expected activities of the two groups.

Investigation of whether the activity is approximately equal for group High and the Tox-batch:

Table 4. 95 % confidence interval for ratio between Mean of group High and Tox-batch (Group High/Tox-batch)

Analysis result for Tox-batch KMTU/g	Number of standard curves for Tox-batch (K_{Tox})	Number of weighings per standard curve for Tox-batch (N_{Tox})	Mean of group High KMTU/g	Lower Limit	Upper Limit	Is there significant difference?
340	2	2	342	0,93	1,08	No

No significant differences were found between group High and the Tox-batch.

9 Conclusion

The enzyme activity of Microbial Trypsin, SP387/TL1 (KMTU/g) in the three groups High, Medium and Low were found not to differ significantly for week 1. The activity of the 100 % dose solution complies with the enzyme activity of the Tox-batch and absence of activity in the control samples was shown.

10 Archiving

The Investigation Plan, all raw data and Investigation Report are archived in Novozymes QM Central Archive by Novozymes Toxicology.

Novozymes A/S
Process Support Laboratories
Enzyme Chemical Laboratory

DNJ
2011-06-06
Luna No. 2011-17433-02

LAB Research Study No.: 73488
Novozymes Reference No.: 20116015

Principal Investigation Report

Amendment 1

Study Title: SP 387/TL1. A 25-Day Oral (Gavage) Toxicity Study in Rats

Analysis of samples returned from LAB Research

Content:

1 Reason

In the QA statements

a. There was by mistaken mention the test articles batch number and the wrong number of days - in the title..

b. The column in the table which describes the dates for reporting was wrongly named.

Purpose

c. By mistake the reference to OECD TG # 408 was not correct.

2 Changes

A new QA statement is issued. See chapter 3.

a. New
Title: SP 387/TL 1. A 25-Day Oral (Gavage) Toxicity Study in Rats

b. New
Name of the column: Inspection results reported to Principal Investigator and Study Management

Purpose

c. New
Content check analysis is required as part of the OECD guideline for oral toxicity studies (OECD TG # 407)

3 QA Statement

QUALITY ASSURANCE STATEMENT

REPORT:	SP 387/TL1. A 25-Day Oral (Gavage) Toxicity Study in Rats. - Analysis of samples returned from LAB Research.
STUDY NUMBER	73488
NZ REFERENCE NUMBER	20116015

The conduct of this study has been subject to appropriate inspections and the report has been reviewed according to the relevant Standard Operation Procedures of Novozymes A/S Quality Assurance.

Inspection/Audit	Dates of Inspection	Inspection results reported to Principal Investigator and Study Management
Main activity ; KMTU/g	11 MAY 2011	12 MAY 2011
Report	26 MAY 2011	26 MAY 2011

I hereby confirm that the report reflects the raw data.

7. June 2011
Date

[redacted]
Quality Assurance

4 Approval

Approved by:

Date: 7 June 2011 **Signature:** [redacted]

Principal Investigator

Appendix III Pathology Report (44 pages, incl. this cover page)

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF CONTENTS

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

EXPLANATION OF CODES AND SYMBOLS

CODES AND SYMBOLS USED AT ANIMAL LEVEL:

M = Male animal
F = Female animal
K0 = Terminal sacrifice group
+ = Intercurrent death/sacrificed moribund
+2 = Sacrificed moribund

CODES AND SYMBOLS USED AT ORGAN LEVEL:

G = Gross observation checked off histologically
0 = Tissue not present for histologic examination
' = Histologic examination not required
+ = Organ examined, findings present
- = Organ examined, no pathologic findings noted (AOFT only)
(= Only one of paired organs examined/present

CODES AND SYMBOLS USED AT FINDING LEVEL:

GRADE 1 = Minimal / very few / very small
GRADE 2 = Slight / few / small
GRADE 3 = Moderate / moderate number / moderate size
P = Finding present, severity not scored
(= Finding unilateral in paired organs
* = Comment in text of individual animal data

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	5	5	5	5	5	5	5	5
HEART :	5	5	-	-	-	-	5	5
- Pericarditis :	-	-	-	-	-	-	1	-
Grade 2:	-	-	-	-	-	-	1	-
- Mononucl cells focal:	1	-	-	-	-	-	1	-
Grade 1:	1	-	-	-	-	-	1	-
LUNG :	5	5	-	-	-	-	5	5
- Pleuritis :	-	1	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
Grade 2:	-	1	-	-	-	-	-	-
- Inflam cells focal :	-	3	-	-	-	-	1	1
Grade 1:	-	2	-	-	-	-	1	1
Grade 2:	-	1	-	-	-	-	-	-
- Macrophages alveolar:	2	-	-	-	-	-	1	-
Grade 1:	2	-	-	-	-	-	1	-
- Hemorrhage alveolar :	1	2	-	-	-	-	1	1
Grade 1:	1	2	-	-	-	-	1	-
Grade 2:	-	-	-	-	-	-	-	1
LIVER :	5	5	-	-	-	-	5	5
- Vacuolation, focal :	-	3	-	-	-	-	3	5
Grade 1:	-	3	-	-	-	-	3	5
- Mononucl cells/EMH :	1	-	-	-	-	-	-	-
Grade 1:	1	-	-	-	-	-	-	-
KIDNEYS :	5	5	-	-	-	-	5	5
- Basophilia tubular :	4	2	-	-	-	-	3	3
Grade 1:	3	2	-	-	-	-	3	3
Grade 3:	1	-	-	-	-	-	-	-
- Hyaline casts tub. :	1	-	-	-	-	-	-	-
Grade 2:	1	-	-	-	-	-	-	-
- Mineralization focal:	-	2	-	-	-	-	-	1
Grade 1:	-	2	-	-	-	-	-	1

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

NUMBER OF ANIMALS WITH MICROSCOPIC FINDINGS BY ORGAN/GROUP/SEX
STATUS AT NECROPSY: K0, INCL. DEATHS

DOSE GROUP:	01		02		03		04	
SEX :	M	F	M	F	M	F	M	F
NO.ANIMALS:	5	5	5	5	5	5	5	5
UTERUS :	-	5	-	-	-	-	-	5
- Estrus :	-	1	-	-	-	-	-	3
- Metestrus :	-	2	-	-	-	-	-	-
- Diestrus :	-	-	-	-	-	-	-	1
- Proestrus :	-	2	-	-	-	-	-	1
ADRENAL GLANDS :	5	5	-	-	-	-	5	5
- Cyst, focal, cortex :	-	-	-	-	-	-	1	-
THYMUS :	5	5	-	-	-	-	5	5
- Hemorrhage focal :	-	1	-	-	-	-	-	1
Grade 1:	-	1	-	-	-	-	-	1
- Lymphocytolysis incr:	-	1	-	-	-	-	1	-
Grade 1:	-	-	-	-	-	-	1	-
Grade 3:	-	1	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 01, 0%

ANIMAL NUMBER :	1	2	3	4	5	6	7	8	9	10
	MK0	MK0	MK0	MK0	MK0	FK0	FK0+	FK0	FK0	FK0
GENERAL OBSERVATIONS	'	'	'	'	'	'	'G	'	'	'
BRAIN	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, CERVIC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, THORAC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, LUMBAR	-	-	-	-	-	-	-	-	-	-
SCIATIC NERVE,RIGHT	-	-	-	-	-	-	-	-	-	-
HEART	-	-	+	-	-	-	-	-	-	-
- Mononucl cells focal	.	.	1.	.	.	.	.	.	.	.
AORTA	-	-	-	-	-	-	-	-	-	-
LARYNX	-	-	-	-	-	-	-	-	-	-
TRACHEA	-	-	-	-	-	-	-	-	-	-
LUNG	-	-	+	+	-	-	+G	+	-	+
- Pleuritis	.	.	.	.	.	.	2.	.	.	.
- Inflam cells focal	.	.	.	.	.	.	2.	1.	.	1.
- Macrophages alveolar	.	.	1.	1.	.	.	.	.	.	.
- Hemorrhage alveolar	.	.	.	1.	.	.	1.	1.	.	.
TONGUE	-	-	-	-	-	-	-	-	-	-
ESOPHAGUS	-	-	-	-	-	-	-	-	-	-
STOMACH NONGLANDULAR	-	-	-	-	-	-	-	-	-	-
STOMACH GLANDULAR	-	-	-	-	-	-	-	-	-	-
DUODENUM	-	-	-	-	-	-	-	-	-	-
JEJUNUM	-	-	-	-	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 01, 0%

ANIMAL NUMBER :	1	2	3	4	5	6	7	8	9	10
	MK0	MK0	MK0	MK0	MK0	FK0	FK0+	FK0	FK0	FK0
ILEUM	-	-	-	-	-	-	-	-	-	-
CECUM	-	-	-	-	-	-	-	-	-	-
COLON	-	-	-	-	-	-	-	-	-	-
RECTUM	-	-	-	-	-	-	-	-	-	-
LIVER	-.	-	-	+	-	+	-	+	-	+
- Vacuolation, focal	.	.	.	.	.	1.	.	1.	.	1.
- Mononucl cells/EMH	.	.	.	1.	.	.	.	.	.	.
PANCREAS	-	-	-	-	-	-	-	-	-	-
KIDNEYS	+	+	+	+	-	+	-	+	+	-
- Basophilia tubular	3*	1.	1. (	1.	.	1.	.	1.	.	.
- Hyaline casts tub.	2.	.	.	.	.	.	.	.	.	.
- Mineralization focal	.	.	.	.	.	.	. (	1. (	1.	.
URETERS	-	-	-	-	-	-	- (	-	-	-
URINARY BLADDER	-	-	-	-	-	-	-	-	-	-
TESTES	-	-	-	-	-					
EPIDIDYMIDES	-	-	-	-	-					
PROSTATE GLAND	-	-	-	-	-					
SEMIN.VESICLE	-	-	-	-	-					
OVARIES						-	-	-	-	-
OVIDUCTS						-	-	-	-	-
UTERUS						+	+	+	+	+
- Estrus						.	.	.	.	P.
- Metestrus						.	P.	P.	.	.
- Proestrus						P.	.	.	P.	.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 01, 0%

ANIMAL NUMBER :	1	2	3	4	5	6	7	8	9	10
	MK0	MK0	MK0	MK0	MK0	FK0	FK0+	FK0	FK0	FK0
CERVIX						-	-	-	-	-
VAGINA						-	-	-	-	-
PITUITARY GLAND	-	-	-	-	-	-	-	-	-	-
THYROID GLAND	-	-	-	-	-	-	-	-	-	-
PARATHYROID GLANDS	-	-	-	-	0	0	-	-	0	-
ADRENAL GLANDS	-	-	-	-	-	-	-	-	-	-
SPLEEN	-	-	-	-	-	-	-	-	-	-
THYMUS	-	-	-	-	-	+G	+G	-	-	-
- Hemorrhage focal	.	.	.	.	.	1.	.	.	.	.
- Lymphocytolysis incr	.	.	.	.	.	.	3.	.	.	.
MESENT. LYMPH NODE	-	-	-	-	-	-	-	-	-	-
MANDIBULAR LN RIGHT	-	-	-	-	-	-	-	-	-	-
PAROTID GLAND, RIGHT	-	-	-	-	-	-	-	-	-	-
SUBLING.GLAND, RIGHT	-	-	-	-	-	-	-	-	-	-
SUBMANDIB.GLD. RIGHT	-	-	-	-	-	-	-	-	-	-
MAMMARY GLAND	-	-	-	-	-	-	-	-	-	-
SKIN/SUBCUTIS	-	-	-	-	-	-	-	-	-	-
SKELETAL MUSCLE	-	-	-	-	-	-	-	-	-	-
BONE, FEMUR	-	-	-	-	-	-	-	-	-	-
JOINT,KNEE,RIGHT	-	-	-	-	-	-	-	-	-	-
EYES	-	-	-	-	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 01, 0%

ANIMAL NUMBER :	1	2	3	4	5	6	7	8	9	10
	MK0	MK0	MK0	MK0	MK0	FK0	FK0+	FK0	FK0	FK0
OPTIC NERVES	-	-	-	-	-	-	-	-	-	-
BODY CAVITIES	'	'	'	'	'	'	'G	'	'	'
STERNUM	-	-	-	-	-	-	0	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 04, 100% (v/v)

ANIMAL NUMBER :	31	32	33	34	35	36	37	39	40	138
	MK0	MK0	MK0	MK0	MK0	FK0	FK0	FK0	FK0	FK0
BRAIN	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, CERVIC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, THORAC.	-	-	-	-	-	-	-	-	-	-
SPINAL CORD, LUMBAR	-	-	-	-	-	-	-	-	-	-
SCIATIC NERVE,RIGHT	-	-	-	-	-	-	-	-	-	-
HEART	-	+	-	-	+	-	-	-	-	-
- Pericarditis	.	.	.	.	2.	.	.	.	.	.
- Mononucl cells focal	.	1.	.	.	.	.	.	.	.	.
AORTA	-	-	-	-	-	-	-	-	-	-.
LARYNX	-	-	-	-	-	-	-	-	-	-
TRACHEA	-	-	-	-	-	-	-	-	-	-
LUNG	+	-	+	-	+	+	-	-	-	-
- Pleuritis	.	.	.	.	1.	.	.	.	.	.
- Inflam cells focal	.	.	1.	.	.	1.	.	.	.	.
- Macrophages alveolar	.	.	.	.	1.	.	.	.	.	.
- Hemorrhage alveolar	1.	.	.	.	.	2.	.	.	.	.
TONGUE	-	-	-	-	-	-	-	-	-	-
ESOPHAGUS	-	-	-	-	-	-	-	-	-	-
STOMACH NONGLANDULAR	-	-	-	-	-	-	-	-	-	-
STOMACH GLANDULAR	-	-	-	-	-	-	-	-	-	-
DUODENUM	-	-	-	-	-	-	-	-	-	-
JEJUNUM	-	-	-	-	-	-	-	-	-	-
ILEUM	-	-	-	-	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 04, 100% (v/v)

ANIMAL NUMBER :	31	32	33	34	35	36	37	39	40	138
	MK0	MK0	MK0	MK0	MK0	FK0	FK0	FK0	FK0	FK0
CECUM	-	-	-	-	-	-	-	-	-	-
COLON	-	-	-	-	-	-	-	-	-	-
RECTUM	-	-	-	-	-	-	-	-	-	-
LIVER	+	-	+	+	-	+	+	+	+	+
- Vacuolation, focal	1.	.	1.	1.	.	1.	1.	1.	1.	1.
PANCREAS	-	-	-	-	-	-	-	-	-	-
KIDNEYS	-	+	+	+	-	+	+	-	+	+
- Basophilia tubular	.	(1.	(1.	(1.	.	(1.	(1.	.	(1.	.
- Mineralization focal	.	.	.	.	.	.	.	.	.	(1.
URETERS	-	-	-	-	-	-	-	-	-	-
URINARY BLADDER	-	-	-	-	-	-	-	-	-	-
TESTES	-	-	-	-	-					
EPIDIDYMIDES	-	-	-	-	-					
PROSTATE GLAND	-	-	-	-	-					
SEMIN.VESICLE	-	-	-	-	-					
OVARIES						-	-	-	-	-
OVIDUCTS						-	-	-	-	-
UTERUS						+	+	+	+	+
- Estrus						P.	P.	P.	.	.
- Diestrus						.	.	.	P.	.
- Proestrus						.	.	.	.	P.
CERVIX						-	-	-	-	-
VAGINA						-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 04, 100% (v/v)

ANIMAL NUMBER :	31	32	33	34	35	36	37	39	40	138
	MK0	MK0	MK0	MK0	MK0	FK0	FK0	FK0	FK0	FK0
PITUITARY GLAND	-	-	-	-	-	-	-	-	-	-
THYROID GLAND	-	-	-	-	-	-	-	-	-	-
PARATHYROID GLANDS	0	-	-	-	0	-	-	-	-	-
ADRENAL GLANDS	-	-	-	(+	-	-	-	-	-	-
- Cyst, focal, cortex	.	.	.	(P.	.	.	.	.	.	.
SPLEEN	-	-	-	-	-	-	-	-	-	-
THYMUS	-	+	-	-	-	-	-	-	+	-
- Hemorrhage focal	.	.	.	.	.	.	.	.	1.	.
- Lymphocytolysis incr	.	1.	.	.	.	.	.	.	.	.
MESENT. LYMPH NODE	-	-	-	-	-	-	-	-	-	-
MANDIBULAR LN RIGHT	-	-	-	-	-	-	-	-	-	-
PAROTID GLAND, RIGHT	-	-	-	-	-	-	-	-	-	-
SUBLING.GLAND, RIGHT	-	-	-	-	-	-	-	-	-	-
SUBMANDIB.GLD. RIGHT	-	-	-	-	-	-	-	-	-	-
MAMMARY GLAND	-	-	-	-	-	-	-	-	-	-
SKIN/SUBCUTIS	-	-	-	-	-	-	-	-	-	-
SKELETAL MUSCLE	-	-	-	-	-	-	-	-	-	-
BONE, FEMUR	-	-	-	-	-	-	-	-	-	-
JOINT,KNEE,RIGHT	-	-	-	-	-	-	-	-	-	-
EYES	-	-	-	-	-	-	-	-	-	-
OPTIC NERVES	-	-	-	-	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TABLE OF INDIVIDUAL MICROSCOPIC FINDINGS (AOFT)
DOSE GROUP : 04, 100% (v/v)

ANIMAL NUMBER :	31	32	33	34	35	36	37	39	40	138
	MK0	MK0	MK0	MK0	MK0	FK0	FK0	FK0	FK0	FK0
STERNUM	-	-	-	-	-	-	-	-	-	-

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 01, 0%

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
1	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
2	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
3	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
4	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
5	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
6	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
7	F	K0	+2	23	17-MAR-11	08-APR-11	08-APR-11
8	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
9	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
10	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 1

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

KIDNEYS:
-Basophilia, tubular, multifocal, in cortex/outer medulla, bilateral, grade 3
associated with fibrosis and mononuclear cells
-Hyaline casts, focal, tubular, bilateral, grade 2
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 2

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

KIDNEYS:
-Basophilia, tubular, focal, in cortex/outer medulla, bilateral, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 3

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

HEART:
-Accumulation of mononuclear cells, focal, between myofibre, grade 1
LUNG:
-Macrophages, alveolar, focal, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex/outer medulla, bilateral, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 4

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Macrophages, alveolar, focal, grade 1
-Hemorrhage, alveolar, focal, grade 1

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% MALE

CONT./FF. ANIMAL NO. : 4

LIVER:
-Mononuclear cells/extramedullary haematopoiesis, focal, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex/outer medulla, unilateral, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 5

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

PARATHYROID GLANDS:
Tissue not present for histologic examination
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 6

* NECROPSY FINDINGS

THYMUS:
01: Discoloration: Red, Right.
NO OTHER NECROPSY OBSERVATIONS NOTED

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, bilateral, grade 1
UTERUS:
-Proestrus
PARATHYROID GLANDS:
Tissue not present for histologic examination
THYMUS:
-Hemorrhage, focal, in cortex, grade 1
This finding corresponds to necropsy observation no: 01.
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

---

* STATE AT NECROPSY: K0/+2
DAYS ON TEST : 23 * ANIMAL NO. : 7

* NECROPSY FINDINGS

GENERAL OBSERVATIONS:
01: Poor general condition.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% FEMALE

CONT./FF. ANIMAL NO. : 7

LUNG:
01: All lobes: Discoloration: Red.
02: Left lobe: focus, grey-white, Many, Up to 5 mm in diameter.
03: Left lobe: Edema.
THYMUS:
01: Enlarged.
02: Edema.
BODY CAVITIES:
01: Chest cavity: Contains water-clear fluid, Approx 3 ml.
NO OTHER NECROPSY OBSERVATIONS NOTED

* MICROSCOPIC FINDINGS

GENERAL OBSERVATIONS:
No microscopic finding corresponding to necropsy observation no. 01.
LUNG:
-Pleuritis, grade 2
This finding corresponds to necropsy observation no: 02.
-Accumulation of inflammatory cells, mixed, focal, grade 2
-Hemorrhage, alveolar, focal, grade 1
This finding corresponds to necropsy observations nos: 01,03.
UTERUS:
-Metestrus
THYMUS:
-Lymphocytolysis, increased, diffuse, in cortex, grade 3
This finding corresponds to necropsy observations nos: 01,02.
BODY CAVITIES:
No microscopic finding corresponding to necropsy observation no. 01.
STERNUM:
Tissue not present for histologic examination
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 8

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Accumulation of inflammatory cells, mixed, focal, grade 1
-Hemorrhage, alveolar, focal, grade 1
LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, asso fibr/mononuc, bilateral, grade 1
-Mineralization, focal, unilateral, grade 1
URETERS:
Only one of paired organs examined/present
UTERUS:
-Metestrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

---

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 9

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 01, 0% FEMALE

CONT./FF. ANIMAL NO. : 9

* MICROSCOPIC FINDINGS

KIDNEYS:
-Mineralization, focal, unilateral, grade 1
UTERUS:
-Proestrus
PARATHYROID GLANDS:
Tissue not present for histologic examination
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 10

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Accumulation of inflammatory cells, mixed, focal, grade 1
LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
UTERUS:
-Estrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1
TEST SYSTEM : RAT, 25-DAYS, ORAL
SPONSOR : Novozymes A/S

PATHOL. NO.: 73488 GN
DATE : 15-AUG-11
PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 02, 10% (v/v)

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
11	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
12	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
13	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
14	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
15	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
16	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
17	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
18	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
19	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
20	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 11

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 12

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 13

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 14

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) MALE

* STATE AT NECROPSY: K0
  DAYS ON TEST : 26 * ANIMAL NO. : 15

* NECROPSY FINDINGS

  NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

  NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 16

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 17

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 18

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 19

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 02, 10% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 20

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 03, 33% (v/v)

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
21	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
22	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
23	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
24	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
25	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
26	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
27	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
28	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
29	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
30	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 21

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 22

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 23

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 24

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 25

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 26

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 27

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 28

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 29

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 03, 33% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 30

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

NO EXAMINATION REQUIRED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

ANIMAL HEADING DATA
DOSE GROUP : 04, 100% (v/v)

ANIMAL NUMBER	SEX M/F	DEFINED AND FINAL STATE OF NECROPSY		TEST DAYS	FIRST AND LAST DAY UNDER TEST		DATE OF NECROPSY
31	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
32	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
33	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
34	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
35	M	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
36	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
37	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
39	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
40	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11
138	F	K0	K0	26	17-MAR-11	11-APR-11	11-APR-11

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 31

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Hemorrhage, alveolar, focal, grade 1
LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
PARATHYROID GLANDS:
Tissue not present for histologic examination
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 32

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

HEART:
-Accumulation of mononuclear cells, focal, between myofibre, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, associated fibrosis, unilateral, grade 1

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) MALE

CONT./FF. ANIMAL NO. : 32

THYMUS:
-Lymphocytolysis, increased, diffuse, in cortex, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 33

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Accumulation of inflammatory cells, mixed, focal, grade 1
LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, unilateral, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) MALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 34

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, unilateral, grade 1
ADRENAL GLANDS:
Only one of paired organs examined/present
-Cyst, focal, cortex, unilateral
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 35

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

HEART:
-Pericarditis, subacute, multifocal, grade 2
LUNG:
-Pleuritis, subacte, focal, grade 1
-Macrophages, alveolar, focal, grade 1

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) MALE

CONT./FF. ANIMAL NO. : 35

PARATHYROID GLANDS:
Tissue not present for histologic examination
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 36

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LUNG:
-Accumulation of inflammatory cells, mixed, focal, grade 1
-Hemorrhage, alveolar, focal, grade 2
LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, unilateral, grade 1
UTERUS:
-Estrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 37

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) FEMALE

CONT./FF. ANIMAL NO. : 37

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, unilateral, grade 1
UTERUS:
-Estrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 39

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
UTERUS:
-Estrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

TEST ARTICLE : SP 387/TL1
TEST SYSTEM : RAT, 25-DAYS, ORAL
SPONSOR : Novozymes A/S
PATHOL. NO.: 73488 GN
DATE : 15-AUG-11
PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) FEMALE

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 40

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Basophilia, tubular, focal, in cortex, associated fibrosis, unilateral, grade 1
UTERUS:
-Diestrus
THYMUS:
-Hemorrhage, focal, in cortex, grade 1
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

---

* STATE AT NECROPSY: K0
DAYS ON TEST : 26 * ANIMAL NO. : 138

* NECROPSY FINDINGS

NO NECROPSY OBSERVATIONS NOTED.

TEST ARTICLE : SP 387/TL1 PATHOL. NO.: 73488 GN
TEST SYSTEM : RAT, 25-DAYS, ORAL DATE : 15-AUG-11
SPONSOR : Novozymes A/S PathData©System V6.2a2

TEXT OF GROSS AND MICROSCOPIC FINDINGS
DOSE GROUP : 04, 100% (v/v) FEMALE

CONT./FF. ANIMAL NO. : 138

* MICROSCOPIC FINDINGS

LIVER:
-Vacuolation, focal, mainly centrilobular, grade 1
KIDNEYS:
-Mineralization, focal, unilateral, grade 1
UTERUS:
-Proestrus
ALL OTHER PROTOCOL TISSUES WITHOUT PATHOLOGIC FINDINGS.

Appendix IV LAB Research (Scantox) Historical Data (7 pages, incl. this cover page)

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Haematology

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	Hb	7	9.69	8.88	10.40	9.12	10.26
female	Hb	7	9.45	9.00	9.87	8.16	10.74
male	RBC	7	8.18	7.16	9.45	7.65	8.71
female	RBC	7	7.94	7.36	8.49	6.86	9.02
male	HT	7	45.57	42.67	49.67	43.12	48.03
female	HT	7	43.10	41.40	45.67	37.17	49.02
male	% RETIC	2	4.40	4.38	4.43	2.53	6.28
female	% RETIC	2	4.03	3.08	4.97	1.20	6.85
male	RETIC	2	0.36	0.34	0.38	0.21	0.51
female	RETIC	2	0.32	0.23	0.40	0.09	0.54
male	MCV	7	55.80	52.33	59.33	53.45	58.15
female	MCV	7	54.33	52.10	56.67	52.55	56.10
male	MCH	7	1.19	1.10	1.24	1.14	1.24
female	MCH	7	1.19	1.14	1.23	1.15	1.23
male	MCHC	7	21.36	20.88	21.92	20.85	21.87
female	MCHC	7	21.94	21.63	22.46	21.50	22.38
male	WBC	7	13.42	10.37	16.79	8.07	18.76
female	WBC	7	10.78	8.20	14.54	6.40	15.15
male	% NEUTRO	7	16.93	10.67	21.33	10.93	22.93
female	% NEUTRO	7	15.91	10.67	18.50	10.05	21.78
male	NEUTRO	7	2.31	1.47	3.67	0.22	4.40
female	NEUTRO	7	1.74	0.97	2.60	0.80	2.68
male	% LYMPHO	7	80.64	75.00	88.67	74.01	87.27
female	% LYMPHO	7	81.77	78.40	88.50	74.51	89.02
male	LYMPHO	7	10.74	7.97	13.07	7.41	14.08
female	LYMPHO	7	8.78	6.53	11.40	4.98	12.59

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Haematology

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	% EOS	7	1.05	0.67	1.78	0.00	2.56
female	% EOS	7	1.19	0.83	1.70	0.00	2.44
male	EOS	7	0.14	0.07	0.28	0.00	0.39
female	EOS	7	0.13	0.07	0.23	0.00	0.29
male	% BASO	7	0.00	0.00	0.00	0.00	0.00
female	% BASO	7	0.00	0.00	0.00	0.00	0.00
male	BASO	7	0.00	0.00	0.00	0.00	0.00
female	BASO	7	0.00	0.00	0.00	0.00	0.00
male	% MONO	7	1.60	0.33	2.78	0.28	2.91
female	% MONO	7	1.20	0.17	2.40	0.00	2.51
male	MONO	7	0.23	0.05	0.46	0.00	0.50
female	MONO	7	0.14	0.03	0.31	0.00	0.29
male	Plt	7	701.47	661.11	762.00	504.39	898.55
female	Plt	7	670.17	660.10	683.20	494.84	845.50
male	APTT	3	15.16	13.07	16.20	10.45	19.86
female	APTT	3	14.20	13.50	14.93	10.14	18.27

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Clinical chemistry

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	ALAT	7	1.95	1.32	2.55	1.37	2.53
female	ALAT	7	1.59	1.15	1.98	0.97	2.20
male	ASAT	7	1.86	1.53	2.10	1.23	2.48
female	ASAT	7	1.72	1.36	2.24	1.23	2.20
male	ALKPH	7	4.97	2.58	6.62	3.54	6.39
female	ALKPH	7	3.33	1.34	4.84	2.07	4.58
male	BILI	7	0.93	0.59	1.51	0.00	1.91
female	BILI	7	0.98	0.58	1.40	0.19	1.77
male	GGT	6	0.01	0.00	0.02	0.00	0.05
female	GGT	6	0.02	0.01	0.02	0.00	0.04
male	CHOL	7	2.62	2.25	2.97	1.92	3.33
female	CHOL	7	2.90	2.37	3.43	2.09	3.71
male	TRIG	7	1.44	0.71	1.92	0.55	2.32
female	TRIG	7	1.23	0.48	1.74	0.25	2.22
male	UREA	7	8.67	6.97	12.45	7.02	10.32
female	UREA	7	9.15	7.33	13.89	7.54	10.77
male	CREAT	7	40.58	32.90	46.00	35.03	46.14
female	CREAT	7	42.95	34.17	48.33	30.54	55.36
male	GLUC	8	6.99	6.00	8.19	4.34	9.65
female	GLUC	8	6.79	5.78	7.87	3.84	9.73
male	Na	7	146.57	143.99	150.05	142.25	150.88
female	Na	7	145.95	139.06	152.80	140.83	151.06
male	K	7	6.12	5.37	6.80	4.99	7.25
female	K	7	5.84	5.50	6.35	4.92	6.77

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Clinical chemistry

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	Ca	7	2.89	2.74	3.05	2.39	3.39
female	Ca	7	2.95	2.74	3.17	2.57	3.33
male	Mg	5	1.30	1.20	1.40	1.02	1.59
female	Mg	5	1.26	1.11	1.34	1.00	1.53
male	P	7	3.87	3.03	4.32	3.19	4.55
female	P	7	3.39	2.87	3.87	2.73	4.05
male	Cl	7	103.21	100.07	106.68	100.20	106.22
female	Cl	7	104.96	99.85	112.03	100.75	109.17
male	PROTEIN	7	63.46	59.66	67.53	58.42	68.51
female	PROTEIN	7	64.27	61.42	66.67	57.42	71.12
male	ALB	8	38.38	33.78	41.80	34.95	41.81
female	ALB	8	39.64	35.62	44.70	35.18	44.11
male	GLOBULIN	7	24.72	18.13	28.83	21.23	28.20
female	GLOBULIN	7	24.37	19.70	28.07	20.46	28.28
male	ALB/G Ratio	8	1.63	1.29	2.30	1.35	1.91
female	ALB/G Ratio	8	1.72	1.33	2.30	1.37	2.06

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Absolute (mg) organ weight

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	ANIMALS	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	ADRENALS	7	68	49.0	43.9	56.6	33.3	64.8
female	ADRENALS	7	68	61.0	55.2	68.6	42.8	79.1
male	BRAIN	7	68	1973.1	1879.5	2148.1	1819.6	2126.7
female	BRAIN	7	68	1838.9	1768.1	2001.6	1702.9	1975.0
male	EPIDIDYMIDES	7	68	796.8	445.2	1191.5	598.0	995.7
male	HEART	7	68	1279.9	1048.1	1464.0	995.5	1564.3
female	HEART	7	68	940.7	859.0	970.3	730.2	1151.2
male	KIDNEYS	9	74	2295.2	1942.8	2717.7	1885.9	2704.6
female	KIDNEYS	9	74	1538.1	1396.7	1711.1	1286.2	1790.0
male	LIVER	9	74	12117.0	9038.7	15214.0	8980.6	15254.0
female	LIVER	9	74	7832.0	6224.0	9857.7	6075.9	9588.1
female	OVARIES	7	67	98.1	90.1	104.4	53.4	142.8
male	PITUITARY	3	32	12.2	12.1	12.3	8.9	15.5
female	PITUITARY	3	32	13.9	13.8	14.0	9.9	17.9
male	SPLEEN	7	68	813.9	666.8	966.6	588.2	1039.6
female	SPLEEN	7	68	571.0	492.1	684.1	405.4	736.6
male	TESTES	7	68	3281.7	2816.3	3669.1	2794.1	3769.4
male	THYMUS	7	68	676.3	545.9	808.3	489.5	63.1
female	THYMUS	7	68	502.2	364.4	652.0	356.6	647.8
male	THYROIDS	2	22	18.7	17.8	19.7	13.2	24.2
female	THYROIDS	2	22	16.0	15.8	16.2	8.3	23.6
female	UTERUS	7	68	538.6	420.6	638.4	105.0	972.1

LAB RESEARCH (SCANTOX) HISTORICAL DATA

Rat toxicity studies

Absolute (mg) organ weight

breed=Mol:Sprd-SPF

14 and 28 days studies

SEX	PARAMETER	NUMBER OF STUDIES	ANIMALS	MEAN	MIN	MAX	95% CONFIDENCE INTERVALS LOWER LIMIT	UPPER LIMIT
male	ADRENALS	7	68	0.0158	0.0118	0.0217	0.0108	0.0209
female	ADRENALS	7	68	0.0283	0.0257	0.0308	0.0195	0.0371
male	BRAIN	7	68	0.6346	0.5656	0.7831	0.5615	0.7077
female	BRAIN	7	68	0.8565	0.7937	0.9577	0.7441	0.9688
male	EPIDIDYMIDES	7	68	0.2468	0.1718	0.3496	0.1907	0.3028
male	HEART	7	68	0.4061	0.3595	0.4292	0.3284	0.4838
female	HEART	7	68	0.4366	0.3741	0.4626	0.3669	0.5064
male	KIDNEYS	9	74	0.7232	0.6203	0.8561	0.6365	0.8098
female	KIDNEYS	9	74	0.7100	0.6260	0.8174	0.6266	0.7933
male	LIVER	9	74	3.8068	2.9100	4.4300	3.2251	4.3885
female	LIVER	9	74	3.6037	2.8640	4.3700	3.0643	4.1431
female	OVARIES	7	67	0.0459	0.0412	0.0519	0.0244	0.0675
male	PITUITARY	3	32	0.00342	0.00327	0.00356	0.00256	0.00428
female	PITUITARY	3	32	0.00607	0.00547	0.00641	0.00447	0.00767
male	SPLEEN	7	68	0.2589	0.2020	0.3063	0.1969	0.3210
female	SPLEEN	7	68	0.2636	0.2403	0.3057	0.2035	0.3237
male	TESTES	7	68	1.0465	0.9530	1.1850	0.8887	1.2044
male	THYMUS	7	68	0.2210	0.1558	0.3113	0.1673	0.2747
female	THYMUS	7	68	0.2346	0.1648	0.3170	0.1753	0.2939
male	THYROIDS	2	22	0.0054	0.0050	0.0058	0.0038	0.0070
female	THYROIDS	2	22	0.0073	0.0072	0.0075	0.0039	0.0108
female	UTERUS	7	68	0.2496	0.2015	0.2971	0.0459	0.4532

novozymes®
Rethink Tomorrow

Ref.: 2014-11016-01
CWCh/PNi

APPENDIX 6

Non-CCI version
Does not include confidential commercial information

Serine protease from *Fusarium oxysporum* produced by a genetically modified strain of *Fusarium venenatum*

Novozymes A/S
July 16th 2014

[redacted]
Regulatory Affairs

Appendix 6

Non-CCI version

Elements in Appendix 6 that are to be treated as confidential commercial information (CCI) are marked with a red box in the CCI version. The confidential information has been removed from the non-CCI version. Grey colour has been used for the applied redactions.

Documentation regarding the production strain

1. Detailed description of the construction of the genetically modified production strain
2. Description of general methods
3. Analysis of selected *F. venenatum* strains for production of mycotoxins
4. Annotated DNA sequence
5. Genetic stability of the production strain (Southern blot)

References for Appendix 6

Desjardins AE, Proctor RH (2007) Molecular biology of Fusarium mycotoxins. International Journal of Food Microbiology, 119, 47-50.

Frisvad JC (1981) Physiological Criteria and Mycotoxin Production as Aids in Identification of Common Asymmetric Penicillia. Applied and Environmental Microbiology, 41 (3), 568-579.

Miller JD, Greenhalgh R, Wang YZ, Lu M (1991) Trichothecene Chemotypes of Three Fusarium Species. Mycologia, 83 (2), 121-130.

Miller,J.D. & MacKenzie. S. (2000). Secondary metabolites of *Fusarium venenatum* strains with deletions in the Tri5 gene, encoding trichodiene synthetase. Mycologia, 92,764-771

Nielsen KF, Smedsgaard J (2003) Fungal metabolite screening: database of 474 mycotoxins and fungal metabolites for de-replication by standardised liquid chromatography-UV-mass spectrometry methodology. Journal of Chromatography A. 1002, 111-136.

Nirenberg HI (1995) Morphological differentiation of Fusarium sambucinum Fuckel sensu stricto, F. torulosum (Berk. & Curt.) Nirenberg comb. nov. and F. venenatum Nirenberg sp. nov. Mycopathologia. 129, 131-141.

O'Donnell K, Cigelnik E, Casper HH (1998) Molecular Phylogenetic, Morphological, and Mycotoxin Data Support Reidentification of the Quorn Mycoprotein Fungus as Fusarium venenatum. Fungal Genetics and Biology 23, 57–67.

Thrane U, Hansen U (1995) Chemical and physiological characterization of taxa in the Fusarium sambucinum complex. Mycopathologia, 129, 183-190.

Trinci APJ (1992) Myco-protein: A twenty-year overnight success story. Mycol. Res. 96 (1), 1-13.

Yoder W, Christianson LM (1998) Species-specific primers resolve members of the Fusarium section Fusarium. Taxonomic Status of the Edible ''Quorn'' Fungus Reevaluated. Fungal Genetics and Biology, 23, 68-8.

Appendix 6.1

Detailed description of the construction of the genetically modified production strain

6.1.1. The host organism

Taxonomy

The host strain, designated *Fusarium venenatum* WTY842-1-11, was derived from the parental strain A3/5 (=ATCC20334), a natural isolate. The taxonomic classification is as followed:

Name: *Fusarium venenatum*
Class: Sordariomycetes
Order: Hypocreales
Family: Nectriaceae
Genus: *Fusarium*
Species: *venenatum*

The identification of the parental strain A3/5 has been confirmed by the American Type Culture Collection (ATCC, Virginia, USA).

Genetic modification

Strains of *F. venenatum* are known to be potentially producers of mycotoxins within the group of trichothecenes, like diacetoxyscirpenol (DAS) (Miller and McKenzie, 2000; Thrane and Hansen, 1995). In fact, under specific inducing conditions, the parental strain may produce DAS and related trichothecenes. Therefore, the gene encoding trichodiene synthase (*tri5*), which catalyzes the first step in the trichodiene biosynthetic pathway, was deleted by means of site-directed gene disruption, thereby rendering it incapable of producing secondary metabolites within the trichothecene biosynthetic pathway.

Construction of the *tri5* deleted host strain

The *F. venenatum* host strain WTY842-1-11 was constructed from strain A3/5 [redacted]

Fig. 1. Strain construction lineage from *F. venenatum* parental strain A3/5 to host strain WTY842-1-11.

[redacted]

Table 1 Overview of relevant genetic elements in plasmid pLC31b. [redacted] [2]Yoder and Christianson (1998). [redacted]

[redacted]

Southern blot analysis confirmed the disruption of the *tri5* gene and insertion of the *amdS* gene in strain WTY-842-1-11.

Verification that the host strain does not produce DAS (diacetoxyscirpenol) and other minor mycotoxins

The host strain WTY842-1-11 was shown unable to produce DAS and related compounds under different inducing conditions and media (Appendix 6.3).

Other minor mycotoxins potentially produced by relevant members of the *Fusarium* genus include i) fusarin C and ii) "butenolide" (4-acetamido-4-hydroxy-2-butenoic acid γ-lactone), a metabolite that has been implicated in animal mycotoxicoses (Desjardins and Proctor, 2007). The host strain was shown not to produce either of these metabolites under different inducing conditions studies, while only traces of fusarin C were detected for the parental strain A3/5 and were only produced under one specific growth condition (Appendix 6.3).

Thus, the host strain does not produce any secondary metabolite of concern.

Absence of production of the secondary metabolites under enzyme production conditions was further confirmed for the serine protease production strain. The result for mycotoxin analysis of production batch PPF 26813 is given in Section A.5 of the main dossier.

6.1.2 Origin and donor of vector and inserts

The enzyme gene
The donor of the [redacted] gene is *F. oxysporum* DSM2672.

[redacted]

The promoter
The promoter is derived from the *F. venenatum* glucoamylase gene (*glaA*) from parental strain A3/5.

The terminator
The transcriptional terminator is derived from the [redacted] gene of *F. oxysporum* DSM2672.

Vector/inserts
The transforming plasmid pJRoy75 (Fig. 3, section 6.1.3) [redacted]

The *bar* gene, used as selective marker in plasmid pJRoy75, encodes a phosphinothricin acetyltransferase and is derived from *Streptomyces hygroscopicus* strain ATCC21705.

6.1.3 Introduced genetic sequences

Construction of the recombinant production organism

Cloning of [redacted] and construction of pJRoy75 is described below.

[redacted]

The recombinant DNA molecule, pJRoy75 (Fig. 3), was introduced into the host *F. venenatum* strain WTY842-1-11, by incubating protoplasts with [redacted] linearized fragment of plasmid pJRoy75 (does not contain the Amp gene, see Fig. 3). As WTY842-1-11 lacks the *bar* gene, it cannot grow in the presence of phosphinothricin.

[redacted]

Transformants are obtained upon the integration of multiple copies of the plasmid into the chromosomal DNA. Selection of transformants was therefore achieved by growing on a medium with phosphinothricin and subsequent screening for expression of the protease. One transformant that showed high trypsin-like serine protease activity, strain [redacted], was selected as the final GM production strain.

The general methods used for engineering the strain are described in Appendix 6.2.

[redacted]

[redacted]

It was verified by Southern blot analysis that the production strain contains the [redacted] gene. As the DNA fragment is integrated by ectopic integration in multiple copies into the genome of the host strain WTY842-1-11 it is not possible to determine the position of integration in the genome or to obtain an accurate genetic map of each individual copy.

As mentioned, plasmid pJRoy75 contains the ampicillin resistance gene (Amp). The ampicillin resistance gene was cut out from the vector and separated from the purified fragment used to generate the transformant production strain. The absence of the ampicillin resistance gene in the final production strain was confirmed by Southern blot.

The fully annotated sequence of pJRoy75 is shown in Appendix 6.4.

6.1.3 Description of the production organism

Identity and taxonomy of production organism

The production organism is a selected strain of *Fusarium venenatum* expressing the *Fusarium oxysporum* serine protease.

The serine protease production strain is further characterized by following phenotypic traits: *tri5-, amds+, bar+.*

Antibiotic resistance gene

There is no ampicillin resistance gene, intact or partial, in the production strain. The bacterial ampicillin resistance gene was cut out from the vector and separated from the purified fragment used to generate the transformant production strain. The absence of antibiotic resistance genes was verified by Southern blot analysis using the relevant antibiotic resistance gene probes.

Stability of the introduced genetic sequences

The presence of the introduced DNA sequences was determined by Southern hybridization to assess the stability and potential for transfer of genetic material as a component of the safety evaluation of the production microorganism (Appendix 6.5).

The transforming DNA is stably integrated into the *Fusarium venenatum* chromosome and, as such, is poorly mobilizable for genetic transfer to other organisms and is mitotically stable.

Appendix 6.2

General description of methods

Appendix 6.3

Analysis of selected *F. venenatum* strains for production of mycotoxins

INTRODUCTION

Fusarium venenatum belongs to a taxonomic group of fungi with the potential to produce several toxic secondary metabolites (Thrane and Hansen 1995) such as type A trichothecenes (diacetoxyscirpenol, DAS), and other minor mycotoxins (fusarin C, FUC) and metabolites that have been implicated in animal mycotoxicoses like "butenolide" (4-acetamido-4-hydroxy-2-butenoic acid γ-lactone, Fig. 1; Desjardins and Proctor 2007, BUT).

The present investigation was undertaken to determine the metabolic potential of *F. venenatum* with particular attention to DAS, FUC and BUT. The analysis of secondary metabolites was performed for the *F. venenatum* parental strain A3/5 and the host strain WTY842-1-11 cultured under strong inducing conditions for the production of secondary metabolites.

TAXONOMY AND THE SECONDARY METABOLITE POTENTIAL OF *F. venenatum*

Fusarium species are common saprophytes on plant debris and in soil. Many species are important plant pathogens. The taxonomy of the genus *Fusarium* has been the subject of controversy for many years. Correct identification of strains based on morphological traits has been cumbersome and it is essential when evaluating the potential production of secondary metabolites. In fact, the *F. venenatum* type strain (ATCC 20334) was originally classified as a *F. graminearum* strain, a grass pathogen but both toxin and molecular data confirmed the wrong taxonomic classification (O'Donnell et al., 1998). In a specific European research project, the type species of *F. sambucinum* was studied in detail (Nirenberg 1995). As a result of these investigations, that included a combination of morphological, molecular and metabolic characteristics, the different strains of this species were re-classified in three different new species: *F. sambucinum*, *F. torulosum* and *F. venenatum* (Nirenberg 1995). This classification has been confirmed using DNA fingerprinting methods and has shown that the Novozymes parental strain A3/5 (ATCC 20334) is indeed a *F. venenatum* (O'Donnell et al., 1998; Yoder and Christianson 1998).

Early studies on the potential for secondary metabolite production by *F. sambucinum* and its interpretation in light of the new taxonomical structure of this species concluded that members of the new *F. venenatum* species may include producers of DAS and other DAS-derived trichothecenes, FUC and BUT (Thrane and Hansen 1995).

As an example, *F. venenatum* produces a DAS-derivative compound not identified in *F. sambucinum* while the latter species produces two unique metabolites only identified by HPLC analysis that are not produced by any of the *F. venenatum* strains studied (Thrane and Hansen 1995). The structure of relevant secondary metabolites potentially produced by *F. venenatum* is shown below (Fig. 1).

But

Fig.1. Relevant secondary metabolites potentially produced by *F. venenatum*

MATERIALS AND METHODS

Strains and culturing conditions for the measurement of secondary metabolites

The strains tested in this study are shown in Table 1.

Strain #	Strain Name	Description
1	A3/5	Parental
2	WTY842-1-11	Host

Table 1. *F. venenatum* strains tested in this study.

F. venenatum strain A3/5 (parental) and WTY842-1-11 (host) were revived from storage in 10% glycerol at -140°C by plating onto PDA plates. The two strains were subsequently inoculated onto the following media:

- Raulin-Thom (RT) agar, 5 ml in a 50 ml blue-cap bottle; RT liquid (still), 5 ml in a 50 ml blue-cap bottle; and RT liquid (shake), 5 ml in a 25 ml blue-cap bottle.
- MYRO (Miller et al. 1991) liquid (still) 5 ml in a 50 ml blue-cap bottle; and MYRO liquid (shake), 5 ml in a 25 ml blue-cap bottle
- YES agar, 5 ml in a 50 ml blue-cap bottle; YES liquid (still), 5 ml in a 50 ml blue-cap bottle; and YES liquid (shake), 5 ml in a 25 ml blue-cap bottle (Frisvad 1981)
- PDA agar in standard Petri dish (Samson et al., 2000).

The plates and cultures were incubated at 25°C for 8 days.

Whole cultures (PDA only 10 cm^2) and media-blanks were extracted with 2 x 14 ml ethyl acetate (after 30 min. shaking). The combined ethyl acetate phases were evaporated to dryness in a rotational vacuum concentrator (RVC) from Christ (Germany), redissolved in 500 µl MeOH and filtered through a 0.45 µm syringe filter, ready for LC-MS analysis. This was performed by our standard C18 LC-DAD-ESI+-MS method (Nielsen and Smedegaard 2003), except that the gradient was started at 10% CH_3CN, and that two scan functions were used, one with 29 V and one with 9 V in between the skimmers (for detection of the labile trichothecenes).

Analysis of LC-DAD-MS data

The C18 LC-DAD-ESI+-MS data files were inspected for:

1. MS Scan function
2. Diacetoxyscirpenol (DAS), [M+NH4]+ at m/z 384.15-384.25, RT 11.9 min (see Fig. 2); mono-acetoxyscirpenol, [M+NH4]+, at m/z 342.16-342.23, RT 7.1 min; and triacetoxyscirpenol, [M+NH4]+ at m/z 426.15-426.25, RT 15.8 min. 2.
3. From the UV trace 350-370 nm, fusarin C (poor sensitivity in MS) and analogues, as well as MS scan function 2 for m/z 432 (fusarin C and D) and 416 (fusarin A).
4. All major peaks in the UV and MS traces were matched against the internal metabolite database (~ 600 metabolites).

Detection limits (LOD) were roughly estimated by:
LOD=(IC x Q)/(s/n x noise x recovery), where **IC** is the ion count of the peak apex of the detection ion, **Q** is the quantity of the injected reference standard, **s/n** is the signal-to-noise ratio used to accept a detection (in this case, 10), **noise** is the base line level of the detection ion and **recovery** is the % of the metabolite extracted from sample, set at 50%. In case of SPE this was multiplied by the recovery of SPE column.

RESULTS

Trichothecenes

Strain A3/5 produced DAS on all media and culturing conditions investigated, whereas the host strain WTY842-1-11 showed no indication of production of DAS or other trichothecenes on any of the media and conditions studied. This is in accordance with the previous work published on *F. venenatum* (O'Donnell et al., 1998). From the data in Table 1, it is clear that incubation with shaking stimulated

DAS production. Also, the data indicate that MYRO was the best induction medium for DAS production and for production of trichothecenes derived from DAS in *F. venenatum* (Table 1). These derivatives were only detected under conditions that resulted in high levels of DAS production for parental strain A3/5 (Table 1).

For the host strain WTY842-1-11, no DAS or other trichothecene derivatives were detected even in cultures grown in MYRO medium with shaking (Table 1), demonstrating the lack of potential for the production of DAS in a *F. venenatum* strain with a deletion of the *tri5* gene involved in the biosynthesis of trichothecenes like the host strain (see Annex B2).

The ion chromatograms for cultures grown in MYRO medium with shaking for strain A3/5, WTY842-1-11, and the medium alone as a control are shown below (Fig. 2). A major peak corresponding to DAS is only observed for strain A3/5 (Fig. 2A). The chromatograms of strain WTY482-1-11 and of the medium do not show any trace of DAS, only background (noise) signals (Fig. 2B and C, respectively).

Trichothecene profiling of *F. venenatum* strains grown on different media and conditions				
Strain	Medium	Peak area (ion counts)[1]		
		15-MAS	DAS	TAS
A3/5	RT liquid	ND	681	ND
	RT shake	ND	737	ND
	RT agar	ND	534	ND
	YES liquid	ND	3017	ND
	YES shake	82	5513	ND
	YES agar	ND	3119	ND
	MYRO liquid	ND	2650	ND
	MYRO shake	457	13104	1732
	PDA agar	70	4581	ND
WTY842-1-11	RT liquid	ND	ND	ND
	RT shake	ND	ND	ND
	RT agar	ND	ND	ND
	YES liquid	ND	ND	ND
	YES shake	ND	ND	ND
	YES agar	ND	ND	ND
	MYRO liquid	ND	ND	ND
	MYRO shake	ND	ND	ND
	PDA agar	ND	ND	ND

Table 1. Analysis of trichothecene production in *F. venenatum* parental strain A3/5 and host strain WTY842-1-11 grown in different induction media (RT, YES, MYRO and PDA) and conditions. 15-MAS = 15-mono-acetoxyscirpenol; DAS = diacetoxyscirpenol; TAS = triacetoxyscirpenol; ND: not detected. [1]Detection limit for DAS, TAS and 15-MAS (LOD) was 5-20 ppb (parts per billion).

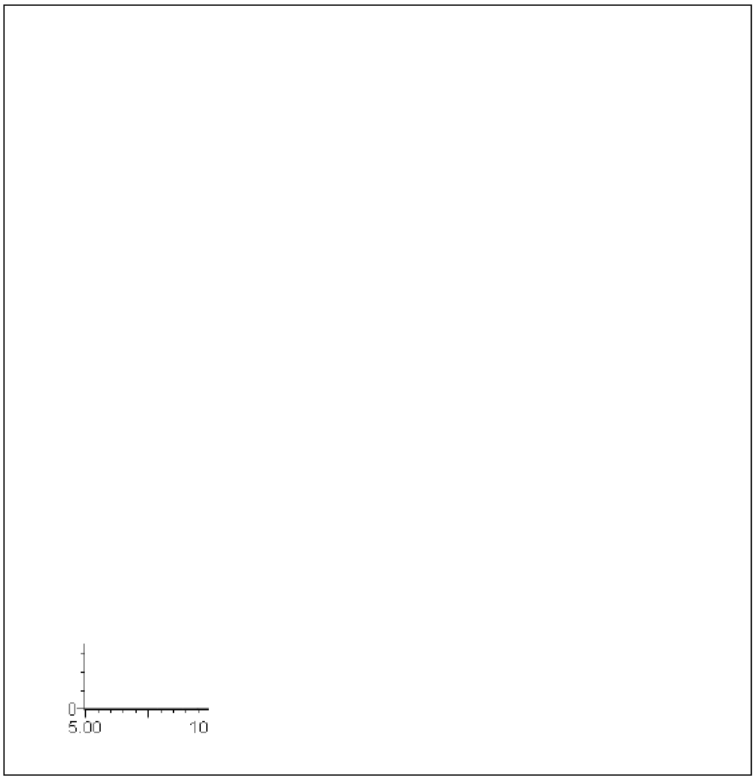


Fig. 2. Extracted ion chromatograms of m/z 384.15-384, [M+NH4]+, comparison of MYRO shake cultures, showing a large (overloaded) DAS peak in strain A3/5 (A), and no detection of DAS in WTY842-1-11 (B) or in the medium (C). The multitude of peaks in B and C do not represent individual metabolites but just noise.

Fusarin C and Butenolide

Fusarin C, as well as fusarin A (tentatively identified) were detected in low quantities in strain A3/5 grown on PDA agar but were not detected in WTY842-1-11 grown on PDA (Table 2). Cultures grown in the other media did not contain detectable quantities of these metabolites for either strain A3/5 or WTY842-1-11 (Table 2). Thus, the host strain does not produce detectable amounts of FUC under strong inducing growth conditions.

Similarly, no butenolide was detected for any of the strains investigated in any of the media/conditions investigated (Table 2). This is consistent with published data showing the lack of production of this secondary metabolite in *F. venenatum* (Thrane and Hansen 1995).

Minor secondary metabolite profiling of *F. venenatum* strains			
Strain	Medium	FUC	BUT
A3/5	RT liquid	ND[1]	ND[2]
	RT shake	ND	ND
	RT agar	ND	ND
	YES liquid	ND	ND
	YES shake	ND	ND
	YES agar	ND	ND
	MYRO liquid	ND	ND
	MYRO shake	ND	ND
	PDA agar	(+)	ND

Minor secondary metabolite profiling of *F. venenatum* strains			
Strain	Medium	FUC	BUT
WTY842-1-11	RT liquid	ND	ND
	RT shake	ND	ND
	RT agar	ND	ND
	YES liquid	ND	ND
	YES shake	ND	ND
	YES agar	ND	ND
	MYRO liquid	ND	ND
	MYRO shake	ND	ND
	PDA agar	ND	ND

Table 2. Analysis of Fusarin C (FUC) and Butenolide (BUT) production in *F. venenatum* parental strain A3/5 and host strain WTY842-1-11 ("WTY") grown in different induction media (RT, YES, MYRO and PDA) and conditions; FUC: Fusarin C; BUT: Butenolide; (+) low level; ND: not detected. [1]Detection limit for FUC (LOD) was 20 ppb (parts per billion); [2]LOD for BUT was 0.5 ppm (parts per million).

CONCLUSION

An investigation of production of relevant secondary metabolites potentially produced by *F. venenatum* was performed. The data generated demonstrate that:

- The *F. venenatum* host strain WTY842-1-11 does not produce DAS and related trichothecenes. The lack of DAS production is the expected result from the inactivation of the biosynthetic pathway that follows the gene disruption of the *tri5* gene performed during strain construction to obtain the host strain WTY842-1-11. The data generated conform to the expected result and demonstrate the lack of potential for production of these compounds in the Novozymes *F. venenatum* strain lineage.
- The *F. venenatum* host strain WTY842-1-11 does not produce any other known mycotoxin or secondary metabolite of concern (FUC, BUT) under the different growth conditions tested
- The parental strain A3/5 produces DAS under all conditions
- The parental strain produced low amounts of FUC under a single growth condition
- The parental strain does not produce BUT

REFERENCES

Desjardins AE and Proctor RH (2007) Int J Food Microbiol 119:47-50

Frisvad JC (1981) Appl Env Microbiol 41:568-579

Miller et al. (1991) Mycol 83:121-130

Nielsen KF and Smedegaard J (2003) J Chrom A 1002:111-136

Nirenberg HI (1995) Mycopathol 129:131-141

O'Donnell KO, Cigelnik E and Casper H (1998) Fungal Gen Biol 23:57-67

Samson RA et al. (2002) In: Introduction to food- and air-borne fungi, 6th edition, CBS Utrecht (Holland)

Thrane U and Hansen (1995) Mycopathol 129:183-190

Yoder WT and Christianson LM (1998) Fungal Gen Biol 23:68-80

Appendix 6.4

Appendix 6.5

Genetic stability of the production strain, [redacted]

Summary

The genetic stability of the production strain was analysed by Southern blot of genomic DNA obtained from end of production samples, compared to a reference of genomic DNA from the production strain taken from the vial collection.

The Southern analysis of the end of production samples and the reference sample showed no differences in the band pattern, thereby demonstrating the genetic stability of the inserted DNA in the [redacted] production strain.

Details

The genetic stability of the production strain was analysed by Southern blot of genomic DNA obtained from end of production samples (Table 1). Genomic DNA was isolated from culture suspension (*i.e.*, end of production samples) that were allowed to sporulate and subsequently grow in liquid culture (Fig. 1). This process adds additional generations to the cells used for the analysis allowing the analysis of genetic stability over the intended period of production.

Batch No.
PFF118
PFF119
PFF121

Table 1. Information on the batches used for genetic stability studies.

Identical morphological characteristics were observed for all three end of production samples compared to the production strain reference (colony morphology on plates, sporulation and growth in liquid medium).

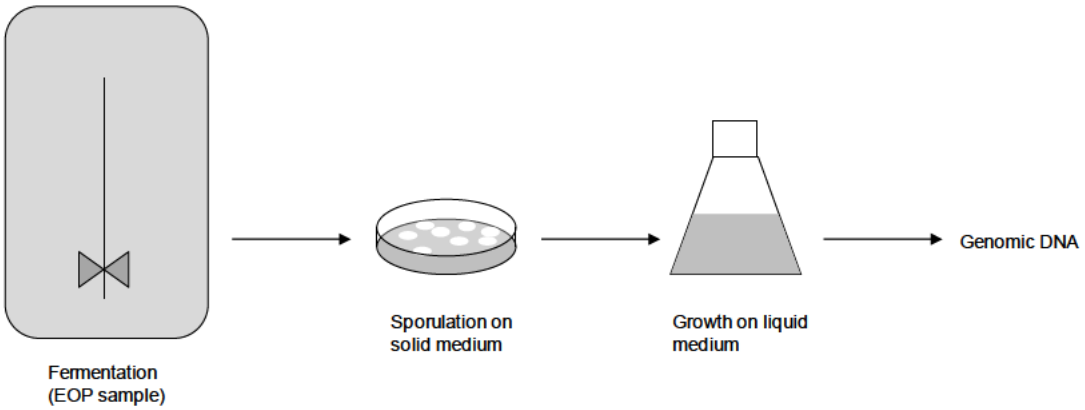


Fig. 1. Overview of genomic DNA sample preparation for genetic stability analysis. A sample from end of production (EOP) from each production batch was taken and used to plate in solid medium to allow for growth of the strain and sporulation after 7 days. Spores were used to produce mycelium by growing in liquid medium 2-3 days. The mycelium was filtered and used for extraction of genomic DNA for Southern blot analysis.

The DNA derived from the end of production samples (Fig. 1) was subsequently analysed by Southern blot analysis, comparing to DNA of the original production strain [redacted]

[redacted]

The Southern analysis of the end of production samples and the reference sample showed no major differences in the band pattern (Fig. 2). Thus, the identity in the hybridization pattern of the end of production samples derived from three independent batches and the production strain [redacted] demonstrates the genetic stability of the inserted DNA in the [redacted]

Method for Southern analysis