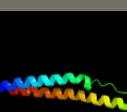
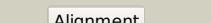
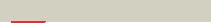
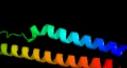
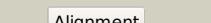
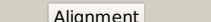
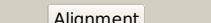
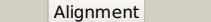


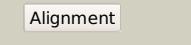
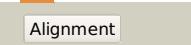
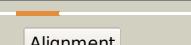
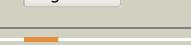
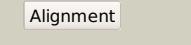
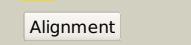
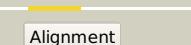
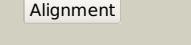
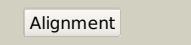
# Phyre<sup>2</sup>

|               |                                 |
|---------------|---------------------------------|
| Email         | mdejesus@rockefeller.edu        |
| Description   | RVBD1430_(PE16)_1606392_1607978 |
| Date          | Wed Jul 31 22:05:54 BST 2019    |
| Unique Job ID | c962ddce6185cf75                |

Detailed template information

| #  | Template                | Alignment Coverage  | 3D Model  | Confidence | % i.d. | Template Information  |
|----|-------------------------|---|---|------------|--------|---|
| 1  | <a href="#">c5xfsA_</a> |    |    | 99.9       | 50     | <b>PDB header:</b> protein transport<br><b>Chain:</b> A: <b>PDB Molecule:</b> pe family protein pe8;<br><b>PDBTitle:</b> crystal structure of pe8-ppe15 in complex with espq5 from m.2 tuberculosis |
| 2  | <a href="#">d2g38a1</a> |    |    | 99.9       | 26     | <b>Fold:</b> Ferritin-like<br><b>Superfamily:</b> PE/PPE dimer-like<br><b>Family:</b> PE  |
| 3  | <a href="#">c2g38A_</a> |    |    | 99.9       | 26     | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> pe family protein;<br><b>PDBTitle:</b> a pe/ppe protein complex from mycobacterium tuberculosis   |
| 4  | <a href="#">c3ajaA_</a> |    |    | 99.9       | 20     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of msmeg_6394   |
| 5  | <a href="#">d1qoza_</a> |  |  | 99.4       | 18     | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Cutinase-like   |
| 6  | <a href="#">d1g66a_</a> |  |  | 99.4       | 18     | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Cutinase-like   |
| 7  | <a href="#">c3hc7A_</a> |  |  | 99.3       | 20     | <b>PDB header:</b> cell adhesion<br><b>Chain:</b> A: <b>PDB Molecule:</b> gene 12 protein;<br><b>PDBTitle:</b> crystal structure of lysin b from mycobacteriophage d29                              |
| 8  | <a href="#">c2czqB_</a> |  |  | 99.2       | 21     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> cutinase-like protein;<br><b>PDBTitle:</b> a novel cutinase-like protein from cryptococcus sp.                                |
| 9  | <a href="#">c3dd5F_</a> |  |  | 99.1       | 14     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> F: <b>PDB Molecule:</b> cutinase;<br><b>PDBTitle:</b> glomerella cingulata e600-cutinase complex  |
| 10 | <a href="#">d1cexa_</a> |  |  | 99.0       | 12     | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Cutinase-like   |
| 11 | <a href="#">c5x88A_</a> |  |  | 99.0       | 17     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cutinase;<br><b>PDBTitle:</b> a crystal structure of cutinases from malbranchea cinnamomea                                    |

|    |                         |                           |      |    |   |
|----|-------------------------|---------------------------|------|----|---|
| 12 | <a href="#">c4oylC</a>  |                           | 98.9 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> cutinase;<br><b>PDBTitle:</b> humicola insolens cutinase in complex with monoethylphosphate   |
| 13 | <a href="#">c3gbsA</a>  |                           | 98.7 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cutinase 1;<br><b>PDBTitle:</b> crystal structure of aspergillus oryzae cutinase  |
| 14 | <a href="#">c4psdA</a>  |                           | 98.7 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> carbohydrate esterase family 5;<br><b>PDBTitle:</b> structure of trichoderma reesei cutinase native form.   |
| 15 | <a href="#">c1mo2A</a>  |                           | 95.5 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> erythronolide synthase, modules 5 and 6;<br><b>PDBTitle:</b> thioesterase domain from 6-deoxyerythronolide synthase (debs te), ph2 8.5  |
| 16 | <a href="#">d1mo2a</a>  |                           | 95.5 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterase domain of polypeptide, polyketide and fatty acid synthases   |
| 17 | <a href="#">c3icvA</a>  |                           | 95.4 | 23 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase b;<br><b>PDBTitle:</b> structural consequences of a circular permutation on lipase b from candida antartica  |
| 18 | <a href="#">d1tcaa</a>  |                           | 94.5 | 23 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases  |
| 19 | <a href="#">c5xavB</a>  |                           | 94.4 | 14 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> intracellular polyhydroxyalkanoate synthase;<br><b>PDBTitle:</b> structure of phac from chromobacterium sp. usm2   |
| 20 | <a href="#">c5xfSB</a>  |                           | 94.4 | 21 | <b>PDB header:</b> protein transport<br><b>Chain:</b> B: <b>PDB Molecule:</b> ppe family protein ppe15;<br><b>PDBTitle:</b> crystal structure of pe8-ppe15 in complex with espf5 from m.2 tuberculosis  |
| 21 | <a href="#">d2g38b1</a> | Alignment<br>not modelled | 93.8 | 6  | <b>Fold:</b> Ferritin-like<br><b>Superfamily:</b> PE/PPE dimer-like<br><b>Family:</b> PPE   |
| 22 | <a href="#">c2g38B</a>  | Alignment<br>not modelled | 93.8 | 6  | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> ppe family protein;<br><b>PDBTitle:</b> a pe/ppe protein complex from mycobacterium tuberculosis  |
| 23 | <a href="#">d1jmkc</a>  | Alignment<br>not modelled | 93.6 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterase domain of polypeptide, polyketide and fatty acid synthases   |
| 24 | <a href="#">c5t6oA</a>  | Alignment<br>not modelled | 93.1 | 22 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> poly-beta-hydroxybuterate polymerase;<br><b>PDBTitle:</b> structure of the catalytic domain of the class i polyhydroxybutrate2 synthase from cupriavidus necator         |
| 25 | <a href="#">d1ei9a</a>  | Alignment<br>not modelled | 92.8 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterases   |
| 26 | <a href="#">c4xy3A</a>  | Alignment<br>not modelled | 91.7 | 6  | <b>PDB header:</b> protein transport<br><b>Chain:</b> A: <b>PDB Molecule:</b> esx-1 secretion-associated protein espb;<br><b>PDBTitle:</b> structure of esx-1 secreted protein espb   |
| 27 | <a href="#">c3ds8A</a>  | Alignment<br>not modelled | 90.1 | 21 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> lin2722 protein;<br><b>PDBTitle:</b> the crystal structure of the gene lin2722 products from listeria2 innocua  |
| 28 | <a href="#">c4nfuB</a>  | Alignment<br>not modelled | 89.4 | 22 | <b>PDB header:</b> signaling protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> senescence-associated carboxylesterase 101;<br><b>PDBTitle:</b> structure of the central plant immunity signaling node eds1 in complex2 with its interaction partner sag101 |

|    |                         |   |           |              |      |    |  |
|----|-------------------------|---|-----------|--------------|------|----|--|
| 29 | <a href="#">c3Ip5A</a>  |     | Alignment | not modelled | 87.8 | 24 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative cell surface hydrolase;<br><b>PDBTitle:</b> the crystal structure of the putative cell surface hydrolase from2 lactobacillus plantarum wcf51                                  |
| 30 | <a href="#">d3b5ea1</a> |    | Alignment | not modelled | 86.3 | 18 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Carboxylesterase/thioesterase 1  |
| 31 | <a href="#">c2cbgA</a>  |    | Alignment | not modelled | 85.2 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> fengycin synthetase;<br><b>PDBTitle:</b> crystal structure of the pmsf-inhibited thioesterase domain of the f2 fengycin biosynthesis cluster   |
| 32 | <a href="#">c5d8mA</a>  |    | Alignment | not modelled | 84.7 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> metagenomic carboxyl esterase mgs0156;<br><b>PDBTitle:</b> crystal structure of the metagenomic carboxyl esterase mgs0156  |
| 33 | <a href="#">d1ispA</a>  |    | Alignment | not modelled | 84.2 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Bacterial lipase   |
| 34 | <a href="#">c4h0cA</a>  |    | Alignment | not modelled | 83.9 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> phospholipase/carboxylesterase;<br><b>PDBTitle:</b> crystal structure of phospholipase/carboxylesterase from dyadobacter2 fermentans dsm 18053   |
| 35 | <a href="#">c2vsqA</a>  |    | Alignment | not modelled | 83.7 | 13 | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> surfactin synthetase subunit 3;<br><b>PDBTitle:</b> structure of surfactin a synthetase c (srfa-c), a nonribosomal peptide2 synthetase termination module                                 |
| 36 | <a href="#">c2zyiB</a>  |    | Alignment | not modelled | 82.3 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> lipase, putative;<br><b>PDBTitle:</b> a. fulgidus lipase with fatty acid fragment and calcium  |
| 37 | <a href="#">c3lcrA</a>  |    | Alignment | not modelled | 81.6 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tautomycetin biosynthetic pk;<br><b>PDBTitle:</b> thioesterase from tautomycetin biosynthethic pathway   |
| 38 | <a href="#">d2h1ia1</a> |    | Alignment | not modelled | 80.3 | 25 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Carboxylesterase/thioesterase 1  |
| 39 | <a href="#">c2oryA</a>  |    | Alignment | not modelled | 80.2 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase;<br><b>PDBTitle:</b> crystal structure of m37 lipase  |
| 40 | <a href="#">d3tbla</a>  |    | Alignment | not modelled | 79.1 | 18 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases   |
| 41 | <a href="#">c5f2hA</a>  |    | Alignment | not modelled | 77.7 | 22 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> 2.75 angstrom resolution crystal structure of uncharacterized protein2 from bacillus cereus atcc 10987                             |
| 42 | <a href="#">c6qppA</a>  |    | Alignment | not modelled | 77.1 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase;<br><b>PDBTitle:</b> rhizomucor miehei lipase propeptide complex, native  |
| 43 | <a href="#">c2h7xA</a>  |  | Alignment | not modelled | 76.4 | 28 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> type i polyketide synthase pikav;<br><b>PDBTitle:</b> pikromycin thioesterase adduct with reduced triketide2 affinity label  |
| 44 | <a href="#">d2h7xa1</a> |  | Alignment | not modelled | 75.7 | 20 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterase domain of polypeptide, polyketide and fatty acid synthases  |
| 45 | <a href="#">c2veoA</a>  |  | Alignment | not modelled | 75.6 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase a;<br><b>PDBTitle:</b> x-ray structure of candida antarctica lipase a in its closed state.  |
| 46 | <a href="#">c4xjvA</a>  |  | Alignment | not modelled | 74.0 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> s-acyl fatty acid synthase thioesterase, medium chain;<br><b>PDBTitle:</b> crystal structure of human thioesterase 2   |
| 47 | <a href="#">c4r1dA</a>  |  | Alignment | not modelled | 73.3 | 20 | <b>PDB header:</b> hydrolase/hydrolase inhibitor<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> the crystal structure of tle4-tli4 complex  |
| 48 | <a href="#">c4qnnC</a>  |  | Alignment | not modelled | 72.9 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> phospholipase a 1 from hornet(vespa basalis) venom;<br><b>PDBTitle:</b> crystal structure of phospholipase a 1 from hornet(vespa basalis)2 venom                                       |
| 49 | <a href="#">c5xk2A</a>  |  | Alignment | not modelled | 72.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> diacylglycerol lipase;<br><b>PDBTitle:</b> crystal structure of mono- and diacylglycerol lipase from aspergillus2 oryzae   |
| 50 | <a href="#">c3uuEA</a>  |  | Alignment | not modelled | 71.7 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lip1, secretory lipase (family 3);<br><b>PDBTitle:</b> crystal structure of mono- and diacylglycerol lipase from malassezia2 globosa   |
| 51 | <a href="#">c3og9A</a>  |  | Alignment | not modelled | 71.6 | 11 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein yahd a copper inducible hydrolase;<br><b>PDBTitle:</b> structure of yahd with malic acid   |
| 52 | <a href="#">c4f21G</a>  |  | Alignment | not modelled | 71.4 | 28 | <b>PDB header:</b> hydrolase/hydrolase inhibitor<br><b>Chain:</b> G: <b>PDB Molecule:</b> carboxylesterase/phospholipase family protein;<br><b>PDBTitle:</b> crystal structure of carboxylesterase/phospholipase family protein2 from francisella tularensis |
| 53 | <a href="#">c4zxIA</a>  |  | Alignment | not modelled | 69.7 | 13 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> tyrocidine synthetase 3;<br><b>PDBTitle:</b> crystal structure of holo-ab3403 a four domain nonribosomal peptide2 synthetase bound to amp and glycine                       |
| 54 | <a href="#">c5gw8A</a>  |  | Alignment | not modelled | 67.0 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical secretory lipase (family 3);<br><b>PDBTitle:</b> crystal structure of a putative dag-like lipase (mgmld2) from2 malassezia globosa  |

|    |                         |  |           |              |      |    |   |
|----|-------------------------|--|-----------|--------------|------|----|---|
| 55 | <a href="#">c2vtvA</a>  |  | Alignment | not modelled | 66.7 | 11 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> phb depolymerase phaz7;<br><b>PDBTitle:</b> phaz7 depolymerase from paucimonas lemoignei  |
| 56 | <a href="#">c4eziA</a>  |  | Alignment | not modelled | 65.8 | 12 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of a putative hydrolase (lpg1103) from legionella2 pneumophila subsp. pneumophila str. philadelphia 1 at 1.15 a3 resolution                                     |
| 57 | <a href="#">d2r8ba1</a> |  | Alignment | not modelled | 65.1 | 19 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Carboxylesterase/thioesterase 1   |
| 58 | <a href="#">c4x96B</a>  |  | Alignment | not modelled | 64.0 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> phosphatidylcholine-sterol acyltransferase;<br><b>PDBTitle:</b> low resolution crystal structure of lecithin:cholesterol2 acyltransferase (lcat; residues 21-397)   |
| 59 | <a href="#">d1etha2</a> |  | Alignment | not modelled | 63.7 | 23 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain  |
| 60 | <a href="#">c2r8bA</a>  |  | Alignment | not modelled | 63.0 | 15 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein atu2452;<br><b>PDBTitle:</b> the crystal structure of the protein atu2452 of unknown function from2 agrobacterium tumefaciens str. c58  |
| 61 | <a href="#">c3h2iA</a>  |  | Alignment | not modelled | 62.3 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> esterase;<br><b>PDBTitle:</b> crystal structure of n228w mutant of the rice cell wall2 degrading esterase lipa from xanthomonas oryzae  |
| 62 | <a href="#">c1pjA</a>   |  | Alignment | not modelled | 61.5 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> palmitoyl-protein thioesterase 2 precursor;<br><b>PDBTitle:</b> the crystal structure of palmitoyl protein thioesterase-2 reveals the basis for divergent substrate specificities of the two lysosomal3 thioesterases (ppt1 and ppt2) |
| 63 | <a href="#">d1pjaa</a>  |  | Alignment | not modelled | 61.5 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterases   |
| 64 | <a href="#">c2yijA</a>  |  | Alignment | not modelled | 60.7 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> phospholipase a1-iigamma;<br><b>PDBTitle:</b> crystal structure of phospholipase a1   |
| 65 | <a href="#">c6cl4A</a>  |  | Alignment | not modelled | 59.3 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase c12;<br><b>PDBTitle:</b> lpc12 - lipase from metagenomics  |
| 66 | <a href="#">c6n8eA</a>  |  | Alignment | not modelled | 58.5 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> holo-obif1;<br><b>PDBTitle:</b> crystal structure of holo-obif1, a five domain nonribosomal peptide2 synthetase from burkholderia diffusa   |
| 67 | <a href="#">c4x91C</a>  |  | Alignment | not modelled | 58.4 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> group xv phospholipase a2;<br><b>PDBTitle:</b> crystal structure of lysosomal phospholipase a2 in complex with2 isopropyl dodec-11-enylfluorophosphonate (idfp)   |
| 68 | <a href="#">c2qjwA</a>  |  | Alignment | not modelled | 58.0 | 26 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein xcc1541;<br><b>PDBTitle:</b> crystal structure of a putative hydrolase of the alpha/beta2 superfamily (xcc1541) from xanthomonas campestris pv. campestris at 3.15 a resolution                               |
| 69 | <a href="#">c3p3dA</a>  |  | Alignment | not modelled | 57.8 | 13 | <b>PDB header:</b> nuclear protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> nucleoporin 53;<br><b>PDBTitle:</b> crystal structure of the nup53 rrm domain from pichia guilliermondii  |
| 70 | <a href="#">d1lpbb2</a> |  | Alignment | not modelled | 57.8 | 23 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain  |
| 71 | <a href="#">d1tiaa</a>  |  | Alignment | not modelled | 57.4 | 22 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases  |
| 72 | <a href="#">c1qgeD</a>  |  | Alignment | not modelled | 57.4 | 29 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> protein (triacylglycerol hydrolase);<br><b>PDBTitle:</b> new crystal form of pseudomonas glumae (formerly chromobacterium2 viscosum atcc 6918) lipase   |
| 73 | <a href="#">d1uxoa</a>  |  | Alignment | not modelled | 56.9 | 11 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> YdeN-like   |
| 74 | <a href="#">d1bu8a2</a> |  | Alignment | not modelled | 55.8 | 24 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain  |
| 75 | <a href="#">c3bdvB</a>  |  | Alignment | not modelled | 55.7 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein duf1234;<br><b>PDBTitle:</b> crystal structure of a putative yden-like hydrolase (eca3091) from2 pectobacterium atrosepticum scri1043 at 1.66 a resolution  |
| 76 | <a href="#">c4gw3A</a>  |  | Alignment | not modelled | 54.3 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative lipase;<br><b>PDBTitle:</b> crystal structure of the lipase from proteus mirabilis   |
| 77 | <a href="#">c4nfua</a>  |  | Alignment | not modelled | 53.7 | 17 | <b>PDB header:</b> signaling protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> eds1;<br><b>PDBTitle:</b> structure of the central plant immunity signaling node eds1 in complex2 with its interaction partner sag101   |
| 78 | <a href="#">d1xkta</a>  |  | Alignment | not modelled | 53.7 | 27 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Thioesterase domain of polypeptide, polyketide and fatty acid synthases   |
| 79 | <a href="#">c5uazB</a>  |  | Alignment | not modelled | 51.7 | 17 | <b>PDB header:</b> protein transport<br><b>Chain:</b> B: <b>PDB Molecule:</b> nucleoporin nup53;<br><b>PDBTitle:</b> crystal structure of the yeast nucleoporin   |
| 80 | <a href="#">d1uwca</a>  |  | Alignment | not modelled | 51.4 | 20 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases  |

|     |                         |  |           |              |      |    |  |
|-----|-------------------------|--|-----------|--------------|------|----|--|
| 81  | <a href="#">d1hpla2</a> |  | Alignment | not modelled | 50.4 | 21 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain   |
| 82  | <a href="#">d1gpla2</a> |  | Alignment | not modelled | 50.2 | 26 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain   |
| 83  | <a href="#">c2q0xA_</a> |  | Alignment | not modelled | 48.2 | 15 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> alpha/beta hydrolase fold protein of unknown function                                     |
| 84  | <a href="#">c3g7nA_</a> |  | Alignment | not modelled | 48.0 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase;<br><b>PDBTitle:</b> crystal structure of a triacylglycerol lipase from penicillium2 expansum at 1.3  |
| 85  | <a href="#">c2h1iA_</a> |  | Alignment | not modelled | 47.2 | 25 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> carboxylesterase;<br><b>PDBTitle:</b> crystal structure of the bacillus cereus carboxylesterase  |
| 86  | <a href="#">d1cvla_</a> |  | Alignment | not modelled | 46.3 | 22 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Bacterial lipase   |
| 87  | <a href="#">c2hihB_</a> |  | Alignment | not modelled | 46.3 | 23 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> lipase 46 kda form;<br><b>PDBTitle:</b> crystal structure of staphylococcus hyicus lipase  |
| 88  | <a href="#">d1tiba_</a> |  | Alignment | not modelled | 44.5 | 23 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases   |
| 89  | <a href="#">c6fvjB_</a> |  | Alignment | not modelled | 44.4 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> thioesterase;<br><b>PDBTitle:</b> tesa a major thioesterase from mycobacterium tuberculosis  |
| 90  | <a href="#">c3flaB_</a> |  | Alignment | not modelled | 42.7 | 10 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> rifr;<br><b>PDBTitle:</b> rifr - type ii thioesterase from rifamycin nrps/pks biosynthetic2 pathway - form 1   |
| 91  | <a href="#">c3fleB_</a> |  | Alignment | not modelled | 42.4 | 13 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> se_1780 protein;<br><b>PDBTitle:</b> se_1780 protein of unknown function from staphylococcus epidermidis.                              |
| 92  | <a href="#">d1lgya_</a> |  | Alignment | not modelled | 42.0 | 27 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Fungal lipases   |
| 93  | <a href="#">c4fleA_</a> |  | Alignment | not modelled | 41.3 | 24 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> esterase;<br><b>PDBTitle:</b> crystal structure of the esterase yqia (ye3661) from yersinia2 enterocolitica, northeast structural genomics consortium target yer85 |
| 94  | <a href="#">c3qmwD_</a> |  | Alignment | not modelled | 39.2 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> thioesterase;<br><b>PDBTitle:</b> redj with peg molecule bound in the active site  |
| 95  | <a href="#">c2w6cX_</a> |  | Alignment | not modelled | 38.6 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> X: <b>PDB Molecule:</b> acetylcholinesterase;<br><b>PDBTitle:</b> acha in complex with a bis(-)-nor-meptazinol derivative  |
| 96  | <a href="#">c2m4mA_</a> |  | Alignment | not modelled | 37.5 | 22 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein;<br><b>PDBTitle:</b> solution structure of the rrm domain of the hypothetical protein2 cagl0m09691g from candida glabrata              |
| 97  | <a href="#">c2pvsB_</a> |  | Alignment | not modelled | 37.2 | 34 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> pancreatic lipase-related protein 2;<br><b>PDBTitle:</b> structure of human pancreatic lipase related protein 22 mutant n336q                                      |
| 98  | <a href="#">c4rvga_</a> |  | Alignment | not modelled | 37.1 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> d-mycarose 3-c-methyltransferase;<br><b>PDBTitle:</b> crystal structure of mtmc in complex with sam and tdp  |
| 99  | <a href="#">c3ndjA_</a> |  | Alignment | not modelled | 36.9 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methyltransferase;<br><b>PDBTitle:</b> x-ray structure of a c-3'-methyltransferase in complex with s-2 adenosyl-l-homocysteine and sugar product                 |
| 100 | <a href="#">c5h3bA_</a> |  | Alignment | not modelled | 36.6 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein hi_1552;<br><b>PDBTitle:</b> crystal structure of semet-biog from haemophilus influenzae at 1.492 angstroms resolution                     |
| 101 | <a href="#">d1rp1a2</a> |  | Alignment | not modelled | 36.6 | 19 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Pancreatic lipase, N-terminal domain   |
| 102 | <a href="#">c2qs9A_</a> |  | Alignment | not modelled | 36.2 | 14 | <b>PDB header:</b> structural protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> retinoblastoma-binding protein 9;<br><b>PDBTitle:</b> crystal structure of the human retinoblastoma-binding2 protein 9 (rbbp-9). nesg target hr2978       |
| 103 | <a href="#">c4qwwA_</a> |  | Alignment | not modelled | 35.8 | 23 | <b>PDB header:</b> hydrolase/immune system<br><b>Chain:</b> A: <b>PDB Molecule:</b> acetylcholinesterase;<br><b>PDBTitle:</b> crystal structure of the fab410-bfache complex   |
| 104 | <a href="#">c5h6bA_</a> |  | Alignment | not modelled | 34.4 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative secreted lipase;<br><b>PDBTitle:</b> crystal structure of a thermostable lipase from marine streptomyces  |
| 105 | <a href="#">c3gvmA_</a> |  | Alignment | not modelled | 34.2 | 12 | <b>PDB header:</b> viral protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein sag1039;<br><b>PDBTitle:</b> structure of the homodimeric wwg-100 family protein from streptococcus2 agalactiae               |
| 106 | <a href="#">c2y6vB_</a> |  | Alignment | not modelled | 34.1 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> peroxisomal membrane protein lpx1;<br><b>PDBTitle:</b> peroxisomal alpha-beta-hydrolase lpx1 (yor084w) from saccharomyces2 cerevisiae (crystal form i)             |
|     |                         |  |           |              |      |    | <b>PDB header:</b> hydrolase   |

|     |                         |           |              |      |    |  |
|-----|-------------------------|-----------|--------------|------|----|--|
| 107 | <a href="#">c3o0dF</a>  | Alignment | not modelled | 32.4 | 22 | <b>Chain:</b> F; <b>PDB Molecule:</b> triacylglycerol lipase;<br><b>PDBTitle:</b> crystal structure of lip2 lipase from yarrowia lipolytica at 1.7 a2 resolution   |
| 108 | <a href="#">c4fg5B</a>  | Alignment | not modelled | 32.4 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> e3 alpha-esterase-7 caboxylesterase;<br><b>PDBTitle:</b> crystal structure of the alpha-esterase-7 carboxylesterase, e3, from2 lucilia cuprina     |
| 109 | <a href="#">c2rauA</a>  | Alignment | not modelled | 31.8 | 9  | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> putative esterase;<br><b>PDBTitle:</b> crystal structure of a putative lipase (np_343859.1) from sulfolobus2 solfataricus at 1.85 a resolution     |
| 110 | <a href="#">d1ea5a</a>  | Alignment | not modelled | 30.5 | 19 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Acetylcholinesterase-like  |
| 111 | <a href="#">c5d6oB</a>  | Alignment | not modelled | 30.4 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> B; <b>PDB Molecule:</b> homoserine o-acetyltransferase;<br><b>PDBTitle:</b> orthorhombic crystal structure of an acetylest er hydrolase from2 corynebacterium glutamicum |
| 112 | <a href="#">c1hplB</a>  | Alignment | not modelled | 29.5 | 21 | <b>PDB header:</b> hydrolase(carboxylic esterase)<br><b>Chain:</b> B; <b>PDB Molecule:</b> lipase;<br><b>PDBTitle:</b> horse pancreatic lipase. the crystal structure at 2.3 angstroms2 resolution                       |
| 113 | <a href="#">c2pplA</a>  | Alignment | not modelled | 28.0 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> pancreatic lipase-related protein 1;<br><b>PDBTitle:</b> human pancreatic lipase-related protein 1   |
| 114 | <a href="#">c2ronA</a>  | Alignment | not modelled | 27.3 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> surfactin synthetase thioesterase subunit;<br><b>PDBTitle:</b> the external thioesterase of the surfactin-synthetase                               |
| 115 | <a href="#">d1ku0a</a>  | Alignment | not modelled | 27.2 | 18 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Bacterial lipase   |
| 116 | <a href="#">c5x6sB</a>  | Alignment | not modelled | 26.6 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> acetylxyilan esterase a;<br><b>PDBTitle:</b> acetyl xylan esterase from aspergillus awamori  |
| 117 | <a href="#">d1lex9a</a> | Alignment | not modelled | 26.4 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Bacterial lipase   |
| 118 | <a href="#">c3ngmB</a>  | Alignment | not modelled | 26.4 | 27 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> extracellular lipase;<br><b>PDBTitle:</b> crystal structure of lipase from gibberella zeae   |
| 119 | <a href="#">c4wf1A</a>  | Alignment | not modelled | 25.5 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> cutinase;<br><b>PDBTitle:</b> crystal structure of pet-degrading cutinase cut190 s226p mutant in2 ca(2+)-free state                                |
| 120 | <a href="#">c6e7kB</a>  | Alignment | not modelled | 25.4 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> lipoprotein lipase;<br><b>PDBTitle:</b> structure of the lipoprotein lipase gpihbp1 complex that mediates2 plasma triglyceride hydrolysis          |