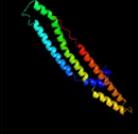
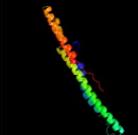
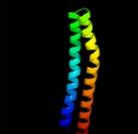
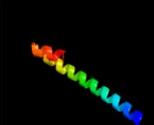
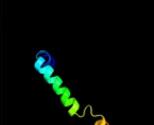
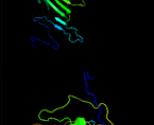


# Phyre2

Email mdejesus@rockefeller.edu  
 Description RVBD3347c\_(PPE55)\_3743882\_3753355  
 Date Thu Aug 8 16:20:56 BST 2019  
 Unique Job ID e86e9629ba82bcbf

Detailed template information

| #  | Template                | Alignment Coverage  | 3D Model  | Confidence | % i.d. | Template Information   |
|----|-------------------------|---|---|------------|--------|--|
| 1  | <a href="#">c5xfsB_</a> |  Alignment   |    | 100.0      | 52     | <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 esp95 from m.2 tuberculosis   |
| 2  | <a href="#">c2g38B_</a> |  Alignment   |    | 100.0      | 33     | <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   |
| 3  | <a href="#">d2g38b1</a> |  Alignment   |    | 100.0      | 33     | <b>Fold:</b> Ferritin-like<br><b>Superfamily:</b> PE/PPE dimer-like<br><b>Family:</b> PPE  |
| 4  | <a href="#">c4xy3A_</a> |  Alignment   |    | 100.0      | 19     | <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  |
| 5  | <a href="#">c4wj2A_</a> |  Alignment |  | 97.0       | 19     | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> antigen mtb48;<br><b>PDBTitle:</b> mycobacterial protein  |
| 6  | <a href="#">c2vs0B_</a> |  Alignment |  | 96.6       | 10     | <b>PDB header:</b> cell invasion<br><b>Chain:</b> B: <b>PDB Molecule:</b> virulence factor esxa;<br><b>PDBTitle:</b> structural analysis of homodimeric staphylococcal aureus2 virulence factor esxa   |
| 7  | <a href="#">c4iogD_</a> |  Alignment |  | 96.4       | 14     | <b>PDB header:</b> unknown function<br><b>Chain:</b> D: <b>PDB Molecule:</b> secreted protein esxb;<br><b>PDBTitle:</b> the crystal structure of a secreted protein esxb (wild-type, in p212 space group) from bacillus anthracis str. Sterne            |
| 8  | <a href="#">c3gvmA_</a> |  Alignment |  | 96.0       | 11     | <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 wxg-100 family protein from streptococcus2 agalactiae                               |
| 9  | <a href="#">c3zbhC_</a> |  Alignment |  | 95.5       | 15     | <b>PDB header:</b> unknown function<br><b>Chain:</b> C: <b>PDB Molecule:</b> esxa;<br><b>PDBTitle:</b> geobacillus thermodenitrificans esxa crystal form i   |
| 10 | <a href="#">d1wa8a1</a> |  Alignment |  | 94.0       | 18     | <b>Fold:</b> Ferritin-like<br><b>Superfamily:</b> EsxAB dimer-like<br><b>Family:</b> ESAT-6 like   |
| 11 | <a href="#">c3jywF_</a> |  Alignment |  | 82.2       | 54     | <b>PDB header:</b> ribosome<br><b>Chain:</b> F: <b>PDB Molecule:</b> 60s ribosomal protein l7(a);<br><b>PDBTitle:</b> structure of the 60s proteins for eukaryotic ribosome based on cryo-em2 map of thermomyces lanuginosus ribosome at 8.9a resolution |

|    |                         |           |   |      |    |  |
|----|-------------------------|-----------|---|------|----|--|
| 12 | <a href="#">c5kf6B</a>  | Alignment |     | 80.7 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> bifunctional protein puta;<br><b>PDBTitle:</b> structure of proline utilization a from sinorhizobium meliloti2 complexed with l-tetrahydrofuroic acid and nad+ in space group p21                                   |
| 13 | <a href="#">c4i0xA</a>  | Alignment |    | 80.2 | 26 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> esat-6-like protein mab_3112;<br><b>PDBTitle:</b> crystal structure of the mycobacterium abscessus esxef (mab_3112-2 mab_3113) complex   |
| 14 | <a href="#">c2vsnB</a>  | Alignment |    | 78.9 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> xcogt;<br><b>PDBTitle:</b> structure and topological arrangement of an o-glcna2 transferase homolog: insight into molecular control of3 intracellular glycosylation  |
| 15 | <a href="#">c5nxhB</a>  | Alignment |    | 77.1 | 15 | <b>PDB header:</b> viral protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> long-tail fiber proximal subunit;<br><b>PDBTitle:</b> crystal structure of the carboxy-terminal region of the bacteriophage2 t4 proximal long tail fibre protein gp34, residues 744-1289 at 2.93 angstrom resolution |
| 16 | <a href="#">c2qqpG</a>  | Alignment |    | 75.2 | 16 | <b>PDB header:</b> virus<br><b>Chain:</b> G: <b>PDB Molecule:</b> large capsid protein;<br><b>PDBTitle:</b> crystal structure of authentic providence virus  |
| 17 | <a href="#">d1wa8b1</a> | Alignment |    | 74.2 | 20 | <b>Fold:</b> Ferritin-like<br><b>Superfamily:</b> EsxAB dimer-like<br><b>Family:</b> ESAT-6 like   |
| 18 | <a href="#">c4lwsA</a>  | Alignment |   | 73.6 | 21 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> esxa : esxb (semet) hetero-dimer from thermomonospora curvata  |
| 19 | <a href="#">c4f9iA</a>  | Alignment |  | 72.1 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> proline dehydrogenase/delta-1-pyrroline-5-carboxylate<br><b>PDBTitle:</b> crystal structure of proline utilization a (puta) from geobacter2 sulfurreducens pca  |
| 20 | <a href="#">d1rp4a</a>  | Alignment |  | 70.6 | 23 | <b>Fold:</b> ERO1-like<br><b>Superfamily:</b> ERO1-like<br><b>Family:</b> ERO1-like  |
| 21 | <a href="#">c3pe3D</a>  | Alignment | not modelled  | 64.8 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> udp-n-acetylglucosamine--peptide n-<br><b>PDBTitle:</b> structure of human o-glcna2 transferase and its complex with a peptide2 substrate  |
| 22 | <a href="#">c3ahrA</a>  | Alignment | not modelled  | 63.0 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ero1-like protein alpha;<br><b>PDBTitle:</b> inactive human ero1  |
| 23 | <a href="#">c2vakF</a>  | Alignment | not modelled  | 59.6 | 19 | <b>PDB header:</b> viral protein<br><b>Chain:</b> F: <b>PDB Molecule:</b> sigma a;<br><b>PDBTitle:</b> crystal structure of the avian reovirus inner capsid protein sigmaa   |
| 24 | <a href="#">c3at7B</a>  | Alignment | not modelled  | 57.1 | 17 | <b>PDB header:</b> structural protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> alginate-binding flagellin;<br><b>PDBTitle:</b> crystal structure of bacterial cell-surface alginate-binding protein2 algp7   |
| 25 | <a href="#">c4lwsB</a>  | Alignment | not modelled  | 55.3 | 15 | <b>PDB header:</b> unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> esxa : esxb (semet) hetero-dimer from thermomonospora curvata  |
| 26 | <a href="#">c3hazA</a>  | Alignment | not modelled  | 53.3 | 28 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> proline dehydrogenase;<br><b>PDBTitle:</b> crystal structure of bifunctional proline utilization a2 (puta) protein  |
| 27 | <a href="#">d1ncfb3</a> | Alignment | not modelled  | 52.8 | 38 | <b>Fold:</b> TNF receptor-like<br><b>Superfamily:</b> TNF receptor-like<br><b>Family:</b> TNF receptor-like  |
| 28 | <a href="#">d1exta3</a> | Alignment | not modelled  | 52.5 | 38 | <b>Fold:</b> TNF receptor-like<br><b>Superfamily:</b> TNF receptor-like<br><b>Family:</b> TNF receptor-like  |
| 29 | <a href="#">d2fr1a1</a> | Alignment | not modelled  | 51.4 | 16 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains  |

|    |                         |           |              |      |    | Family:Tyrosine-dependent oxidoreductases  |
|----|-------------------------|-----------|--------------|------|----|--|
| 30 | <a href="#">d1ui5a2</a> | Alignment | not modelled | 51.3 | 16 | <b>Fold:</b> Tetracyclin repressor-like, C-terminal domain<br><b>Superfamily:</b> Tetracyclin repressor-like, C-terminal domain<br><b>Family:</b> Tetracyclin repressor-like, C-terminal domain  |
| 31 | <a href="#">c2wybA</a>  | Alignment | not modelled | 50.8 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> acyl-homoserine lactone acylase pvdq subunit<br><b>PDBTitle:</b> the quorum quenching n-acyl homoserine lactone acylase pvdq2 with a covalently bound dodecanoic acid                          |
| 32 | <a href="#">c5djsA</a>  | Alignment | not modelled | 49.6 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tetratricopeptide tpr_2 repeat protein;<br><b>PDBTitle:</b> thermobaculum terrenum o-glcnaC transferase mutant - k341m   |
| 33 | <a href="#">c3lhoA</a>  | Alignment | not modelled | 49.3 | 50 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative hydrolase;<br><b>PDBTitle:</b> crystal structure of putative hydrolase (yp_751971.1) from shewanella2 frigidimarina ncimb 400 at 1.80 a resolution                                    |
| 34 | <a href="#">c4e4gF</a>  | Alignment | not modelled | 49.2 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> F: <b>PDB Molecule:</b> methylmalonate-semialdehyde dehydrogenase;<br><b>PDBTitle:</b> crystal structure of putative methylmalonate-semialdehyde2 dehydrogenase from sinorhizobium meliloti 1021                  |
| 35 | <a href="#">c2vroB</a>  | Alignment | not modelled | 48.6 | 22 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> aldehyde dehydrogenase;<br><b>PDBTitle:</b> crystal structure of aldehyde dehydrogenase from2 burkholderia xenovorans lb400   |
| 36 | <a href="#">c2kg7B</a>  | Alignment | not modelled | 48.0 | 20 | <b>PDB header:</b> unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> resat-6-like protein eshx;<br><b>PDBTitle:</b> structure and features of the complex formed by the tuberculosis2 virulence factors rv0287 and rv0288                                    |
| 37 | <a href="#">d3cx5d1</a> | Alignment | not modelled | 47.3 | 25 | <b>Fold:</b> Cytochrome c<br><b>Superfamily:</b> Cytochrome c<br><b>Family:</b> Cytochrome bc1 domain  |
| 38 | <a href="#">c2ve5H</a>  | Alignment | not modelled | 46.6 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> H: <b>PDB Molecule:</b> betaine aldehyde dehydrogenase;<br><b>PDBTitle:</b> crystallographic structure of betaine aldehyde2 dehydrogenase from pseudomonas aeruginosa   |
| 39 | <a href="#">d1ppid1</a> | Alignment | not modelled | 45.9 | 20 | <b>Fold:</b> Cytochrome c<br><b>Superfamily:</b> Cytochrome c<br><b>Family:</b> Cytochrome bc1 domain  |
| 40 | <a href="#">c4bgoA</a>  | Alignment | not modelled | 45.6 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> efem m75 peptidase;<br><b>PDBTitle:</b> structural and functional role of the imelysin-like protein2 efem from pseudomonas syringae pv. syringae and3 implications in bacterial iron transport |
| 41 | <a href="#">d1xkna</a>  | Alignment | not modelled | 44.9 | 18 | <b>Fold:</b> Pentain, beta/alpha-propeller<br><b>Superfamily:</b> Pentain<br><b>Family:</b> Porphyromonas-type peptidylarginine deiminase  |
| 42 | <a href="#">c3ed6B</a>  | Alignment | not modelled | 44.9 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> betaine aldehyde dehydrogenase;<br><b>PDBTitle:</b> 1.7 angstrom resolution crystal structure of betaine aldehyde2 dehydrogenase (betb) from staphylococcus aureus                        |
| 43 | <a href="#">d1oy0a</a>  | Alignment | not modelled | 43.7 | 22 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Ketopantoate hydroxymethyltransferase PanB   |
| 44 | <a href="#">c4h7nA</a>  | Alignment | not modelled | 43.4 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> aldehyde dehydrogenase;<br><b>PDBTitle:</b> the structure of putative aldehyde dehydrogenase puta from anabaena2 variabilis.  |
| 45 | <a href="#">c4o5hD</a>  | Alignment | not modelled | 42.7 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> phenylacetaldehyde dehydrogenase;<br><b>PDBTitle:</b> x-ray crystal structure of a putative phenylacetaldehyde dehydrogenase2 from burkholderia cenocepacia                               |
| 46 | <a href="#">c2jg7G</a>  | Alignment | not modelled | 40.7 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> G: <b>PDB Molecule:</b> antiquitin;<br><b>PDBTitle:</b> crystal structure of seabream antiquitin and elucidation of2 its substrate specificity  |
| 47 | <a href="#">c3qx3B</a>  | Alignment | not modelled | 40.2 | 31 | <b>PDB header:</b> isomerase/dna/isomerase inhibitor<br><b>Chain:</b> B: <b>PDB Molecule:</b> dna topoisomerase 2-beta;<br><b>PDBTitle:</b> human topoisomerase ii beta in complex with dna and etoposide  |
| 48 | <a href="#">c2mu3A</a>  | Alignment | not modelled | 38.0 | 17 | <b>PDB header:</b> structural protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> aciniform spidroin 1;<br><b>PDBTitle:</b> spider wrapping silk fibre architecture arising from its modular2 soluble protein precursor   |
| 49 | <a href="#">c1qcrD</a>  | Alignment | not modelled | 37.3 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> ubiquinol cytochrome c oxidoreductase;<br><b>PDBTitle:</b> crystal structure of bovine mitochondrial cytochrome bc12 complex, alpha carbon atoms only                                     |
| 50 | <a href="#">c4n16C</a>  | Alignment | not modelled | 37.3 | 71 | <b>PDB header:</b> splicing<br><b>Chain:</b> C: <b>PDB Molecule:</b> survival motor neuron protein;<br><b>PDBTitle:</b> structure of the full-length form of the protein smn found in healthy2 patients  |
| 51 | <a href="#">c4fm9A</a>  | Alignment | not modelled | 36.7 | 27 | <b>PDB header:</b> isomerase/dna<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna topoisomerase 2-alpha;<br><b>PDBTitle:</b> human topoisomerase ii alpha bound to dna   |
| 52 | <a href="#">c5fhzF</a>  | Alignment | not modelled | 36.3 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> F: <b>PDB Molecule:</b> aldehyde dehydrogenase family 1 member a3;<br><b>PDBTitle:</b> human aldehyde dehydrogenase 1a3 complexed with nad(+) and retinoic2 acid  |
| 53 | <a href="#">c4lrV</a>   | Alignment | not modelled | 35.5 | 40 | <b>PDB header:</b> dna binding protein<br><b>Chain:</b> L: <b>PDB Molecule:</b> dna sulfur modification protein dnde;<br><b>PDBTitle:</b> crystal structure of dnde from escherichia coli b7a involved in dna2 phosphorothioation modification                       |
| 54 | <a href="#">c1zrtD</a>  | Alignment | not modelled | 35.1 | 30 | <b>PDB header:</b> oxidoreductase/metal transport<br><b>Chain:</b> D: <b>PDB Molecule:</b> cytochrome c1;<br><b>PDBTitle:</b> rhodobacter capsulatus cytochrome bc1 complex with2  |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
|    |                         |           |              |      |    | stigmatellin bound   |
| 55 | <a href="#">d1tpla_</a> | Alignment | not modelled | 35.1 | 13 | <b>Fold:</b> PLP-dependent transferase-like<br><b>Superfamily:</b> PLP-dependent transferases<br><b>Family:</b> Beta-eliminating lyases  |
| 56 | <a href="#">c4q7oA_</a> | Alignment | not modelled | 32.7 | 32 | <b>PDB header:</b> immune system<br><b>Chain:</b> A: <b>PDB Molecule:</b> immunity protein;<br><b>PDBTitle:</b> the crystal structure of an immunity protein nmb0503 from neisseria2 meningitidis mc58   |
| 57 | <a href="#">c3cwbQ_</a> | Alignment | not modelled | 32.6 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> Q: <b>PDB Molecule:</b> mitochondrial cytochrome c1, heme protein;<br><b>PDBTitle:</b> chicken cytochrome bc1 complex inhibited by an iodinated analogue of2 the polyketide crocacin-d                                  |
| 58 | <a href="#">c4rqoB_</a> | Alignment | not modelled | 31.9 | 32 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> l-serine dehydratase;<br><b>PDBTitle:</b> crystal structure of l-serine dehydratase from legionella pneumophila  |
| 59 | <a href="#">c2hg2A_</a> | Alignment | not modelled | 31.9 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> aldehyde dehydrogenase a;<br><b>PDBTitle:</b> structure of lactaldehyde dehydrogenase   |
| 60 | <a href="#">c5ujuA_</a> | Alignment | not modelled | 31.7 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nad-dependent aldehyde dehydrogenase;<br><b>PDBTitle:</b> crystal structure of nad-dependent aldehyde dehydrogenase from2 burkholderia multivorans  |
| 61 | <a href="#">c3u4jB_</a> | Alignment | not modelled | 31.5 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> nad-dependent aldehyde dehydrogenase;<br><b>PDBTitle:</b> crystal structure of nad-dependent aldehyde dehydrogenase from2 sinorhizobium meliloti  |
| 62 | <a href="#">c6ghrF_</a> | Alignment | not modelled | 30.7 | 59 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> F: <b>PDB Molecule:</b> cp12 polypeptide;<br><b>PDBTitle:</b> cyanobacterial gapdh with full-length cp12  |
| 63 | <a href="#">d1bi9a_</a> | Alignment | not modelled | 30.5 | 15 | <b>Fold:</b> ALDH-like<br><b>Superfamily:</b> ALDH-like<br><b>Family:</b> ALDH-like  |
| 64 | <a href="#">c3fpjA_</a> | Alignment | not modelled | 30.3 | 11 | <b>PDB header:</b> biosynthetic protein, transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of e81q mutant of mtas in complex with s-2 adenosylmethionine  |
| 65 | <a href="#">c5lzkB_</a> | Alignment | not modelled | 30.2 | 9  | <b>PDB header:</b> structural genomics<br><b>Chain:</b> B: <b>PDB Molecule:</b> protein fam83b;<br><b>PDBTitle:</b> structure of the domain of unknown function duf1669 from human fam83b  |
| 66 | <a href="#">c1bjtA_</a> | Alignment | not modelled | 30.1 | 23 | <b>PDB header:</b> topoisomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> topoisomerase ii;<br><b>PDBTitle:</b> topoisomerase ii residues 409-1201   |
| 67 | <a href="#">d1bjta_</a> | Alignment | not modelled | 30.1 | 23 | <b>Fold:</b> Type II DNA topoisomerase<br><b>Superfamily:</b> Type II DNA topoisomerase<br><b>Family:</b> Type II DNA topoisomerase  |
| 68 | <a href="#">c3rf7A_</a> | Alignment | not modelled | 29.4 | 12 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> iron-containing alcohol dehydrogenase;<br><b>PDBTitle:</b> crystal structure of an iron-containing alcohol dehydrogenase2 (sden_2133) from shewanella denitrificans os-217 at 2.12 a resolution |
| 69 | <a href="#">c4urjA_</a> | Alignment | not modelled | 29.3 | 19 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein fam83a;<br><b>PDBTitle:</b> crystal structure of human bj-tsa-9   |
| 70 | <a href="#">d1byra_</a> | Alignment | not modelled | 29.2 | 17 | <b>Fold:</b> Phospholipase D/nuclease<br><b>Superfamily:</b> Phospholipase D/nuclease<br><b>Family:</b> Nuclease   |
| 71 | <a href="#">d2a15a1</a> | Alignment | not modelled | 29.1 | 16 | <b>Fold:</b> Cystatin-like<br><b>Superfamily:</b> NTF2-like<br><b>Family:</b> Ketosteroid isomerase-like   |
| 72 | <a href="#">c2yiuE_</a> | Alignment | not modelled | 28.7 | 35 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> E: <b>PDB Molecule:</b> cytochrome c1, heme protein;<br><b>PDBTitle:</b> x-ray structure of the dimeric cytochrome bc1 complex from2 the soil bacterium paracoccus denitrificans at 2.73 angstrom resolution            |
| 73 | <a href="#">d2gxfa1</a> | Alignment | not modelled | 28.4 | 16 | <b>Fold:</b> Cystatin-like<br><b>Superfamily:</b> NTF2-like<br><b>Family:</b> YybH-like  |
| 74 | <a href="#">c4i3wC_</a> | Alignment | not modelled | 28.3 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> aldehyde dehydrogenase (nad+);<br><b>PDBTitle:</b> structure of phosphonoacetaldehyde dehydrogenase in complex with2 glycerlaldehyde-3-phosphate and cofactor nad+                              |
| 75 | <a href="#">c6fhjA_</a> | Alignment | not modelled | 27.6 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein,protein;<br><b>PDBTitle:</b> structural dynamics and catalytic properties of a multi-modular2 xanthanase, native.  |
| 76 | <a href="#">c3vohA_</a> | Alignment | not modelled | 27.5 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cellobiohydrolase;<br><b>PDBTitle:</b> cccel6a catalytic domain complexed with cellobiose  |
| 77 | <a href="#">c2ordA_</a> | Alignment | not modelled | 27.5 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> acetylornithine aminotransferase;<br><b>PDBTitle:</b> crystal structure of acetylornithine aminotransferase (ec 2.6.1.11)2 (acoat) (tm1785) from thermotoga maritima at 1.40 a resolution          |
| 78 | <a href="#">c3q3hA_</a> | Alignment | not modelled | 27.0 | 10 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> hmw1c-like glycosyltransferase;<br><b>PDBTitle:</b> crystal structure of the actinobacillus pleuropneumoniae hmw1c2 glycosyltransferase in complex with udp-glc                                    |
| 79 | <a href="#">d1vkpa_</a> | Alignment | not modelled | 27.0 | 31 | <b>Fold:</b> Pentain, beta/alpha-propeller<br><b>Superfamily:</b> Pentain<br><b>Family:</b> Porphyromonas-type peptidylarginine deiminase  |
|    |                         |           |              |      |    | <b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain   |

|     |                         |           |              |      |    |   |
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| 80  | <a href="#">d1luaa2</a> | Alignment | not modelled | 27.0 | 27 | <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain<br><b>Family:</b> Methylene-tetrahydromethanopterin dehydrogenase   |
| 81  | <a href="#">c4gfhA</a>  | Alignment | not modelled | 26.4 | 23 | <b>PDB header:</b> isomerase/dna<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna topoisomerase 2;<br><b>PDBTitle:</b> topoisomerase ii-dna-amppnp complex  |
| 82  | <a href="#">c3kb4D</a>  | Alignment | not modelled | 26.3 | 19 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> D: <b>PDB Molecule:</b> alr8543 protein;<br><b>PDBTitle:</b> crystal structure of the alr8543 protein in complex with2 geranylgeranyl monophosphate and magnesium ion from nostoc sp. pcc3 7120, northeast structural genomics consortium target nsr141 |
| 83  | <a href="#">d2ewoa1</a> | Alignment | not modelled | 26.2 | 17 | <b>Fold:</b> Pentain, beta/alpha-propeller<br><b>Superfamily:</b> Pentain<br><b>Family:</b> Porphyromonas-type peptidylarginine deiminase   |
| 84  | <a href="#">c1p84D</a>  | Alignment | not modelled | 26.0 | 25 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> cytochrome c1, heme protein;<br><b>PDBTitle:</b> hdbt inhibited yeast cytochrome bc1 complex   |
| 85  | <a href="#">c2fynH</a>  | Alignment | not modelled | 25.3 | 30 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> H: <b>PDB Molecule:</b> cytochrome c1;<br><b>PDBTitle:</b> crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex  |
| 86  | <a href="#">c5aizA</a>  | Alignment | not modelled | 25.1 | 17 | <b>PDB header:</b> zinc-binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> zinc finger miz domain-containing protein 1;<br><b>PDBTitle:</b> the pias-like coactivator zmiz1 is a direct and selective cofactor2 of notch1 in t-cell development and leukemia  |
| 87  | <a href="#">d1o66a</a>  | Alignment | not modelled | 24.9 | 22 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Ketopantoate hydroxymethyltransferase PanB  |
| 88  | <a href="#">c4jzaB</a>  | Alignment | not modelled | 24.9 | 27 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of a legionella phosphoinositide phosphatase:2 insights into lipid metabolism in pathogen host interaction   |
| 89  | <a href="#">c6dbbA</a>  | Alignment | not modelled | 24.8 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative aldehyde dehydrogenase family protein;<br><b>PDBTitle:</b> crystal structure of a putative aldehyde dehydrogenase family protein2 burkholderia cenocepacia j2315 in complex with partially reduced nadh                                       |
| 90  | <a href="#">d3cu3a1</a> | Alignment | not modelled | 24.8 | 24 | <b>Fold:</b> Cystatin-like<br><b>Superfamily:</b> NTF2-like<br><b>Family:</b> BaiE/LinA-like  |
| 91  | <a href="#">c5azaA</a>  | Alignment | not modelled | 24.6 | 17 | <b>PDB header:</b> sugar binding protein, transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> maltose-binding periplasmic protein,oligosaccharyl<br><b>PDBTitle:</b> crystal structure of mbp-saglb fusion protein with a 20-residue spacer2 in the connector helix  |
| 92  | <a href="#">c6fhnA</a>  | Alignment | not modelled | 24.6 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein;<br><b>PDBTitle:</b> structural dynamics and catalytic properties of a multi-modular2 xanthanase (pt derivative)  |
| 93  | <a href="#">d1bvsa1</a> | Alignment | not modelled | 24.5 | 36 | <b>Fold:</b> RuvA C-terminal domain-like<br><b>Superfamily:</b> DNA helicase RuvA subunit, C-terminal domain<br><b>Family:</b> DNA helicase RuvA subunit, C-terminal domain   |
| 94  | <a href="#">c3b5oA</a>  | Alignment | not modelled | 24.1 | 50 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cadd-like protein of unknown function;<br><b>PDBTitle:</b> crystal structure of a cadd-like protein of unknown function2 (npun_f6505) from nostoc punctiforme pcc 73102 at 1.35 a resolution   |
| 95  | <a href="#">d1vefa1</a> | Alignment | not modelled | 24.1 | 14 | <b>Fold:</b> PLP-dependent transferase-like<br><b>Superfamily:</b> PLP-dependent transferases<br><b>Family:</b> GABA-aminotransferase-like  |
| 96  | <a href="#">c2pheC</a>  | Alignment | not modelled | 24.1 | 31 | <b>PDB header:</b> transcription<br><b>Chain:</b> C: <b>PDB Molecule:</b> alpha trans-inducing protein;<br><b>PDBTitle:</b> model for vp16 binding to pc4   |
| 97  | <a href="#">c2wk1A</a>  | Alignment | not modelled | 24.0 | 33 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> novp;<br><b>PDBTitle:</b> structure of the o-methyltransferase novp   |
| 98  | <a href="#">c6ca8A</a>  | Alignment | not modelled | 23.9 | 19 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna topoisomerase 2;<br><b>PDBTitle:</b> crystal structure of plasmodium falciparum topoisomerase ii dna-2 binding, cleavage and re-ligation domain   |
| 99  | <a href="#">c6ajrA</a>  | Alignment | not modelled | 23.7 | 27 | <b>PDB header:</b> dna binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> uracil dna glycosylase superfamily protein;<br><b>PDBTitle:</b> complex form of uracil dna glycosylase x and uracil   |
| 100 | <a href="#">c4ovmE</a>  | Alignment | not modelled | 23.4 | 28 | <b>PDB header:</b> unknown function<br><b>Chain:</b> E: <b>PDB Molecule:</b> uncharacterized protein sgcj;<br><b>PDBTitle:</b> crystal structure of sgcj protein from streptomyces carzinostaticus  |
| 101 | <a href="#">d1kzqa1</a> | Alignment | not modelled | 23.3 | 25 | <b>Fold:</b> Cupredoxin-like<br><b>Superfamily:</b> Major surface antigen p30, SAG1<br><b>Family:</b> Major surface antigen p30, SAG1   |
| 102 | <a href="#">c6iz9B</a>  | Alignment | not modelled | 23.3 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-transaminase;<br><b>PDBTitle:</b> crystal structure of the apo form of a beta-transaminase from2 mesorhizobium sp. strain luk  |
| 103 | <a href="#">c3ifzA</a>  | Alignment | not modelled | 23.0 | 30 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dna gyrase subunit a;<br><b>PDBTitle:</b> crystal structure of the first part of the mycobacterium tuberculosis2 dna gyrase reaction core: the breakage and reunion domain at 2.7 a3 resolution   |
| 104 | <a href="#">c2k2uB</a>  | Alignment | not modelled | 23.0 | 31 | <b>PDB header:</b> transcription<br><b>Chain:</b> B: <b>PDB Molecule:</b> alpha trans-inducing protein;<br><b>PDBTitle:</b> nmr structure of the complex between tfb1 subunit of tfiih2 and the activation domain of vp16   |

|     |                         |           |              |      |    |  |
|-----|-------------------------|-----------|--------------|------|----|--|
| 105 | <a href="#">c3hx8A_</a> | Alignment | not modelled | 23.0 | 27 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative ketosteroid isomerase;<br><b>PDBTitle:</b> crystal structure of putative ketosteroid isomerase (np_103587.1) from2 mesorhizobium loti at 1.45 a resolution                    |
| 106 | <a href="#">c3r8rJ_</a> | Alignment | not modelled | 22.7 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> J: <b>PDB Molecule:</b> transaldolase;<br><b>PDBTitle:</b> transaldolase from bacillus subtilis  |
| 107 | <a href="#">d1nfpA_</a> | Alignment | not modelled | 22.2 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Bacterial luciferase-like<br><b>Family:</b> Non-fluorescent flavoprotein (luxF, FP390)   |
| 108 | <a href="#">c5ur2C_</a> | Alignment | not modelled | 22.1 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> bifunctional protein puta;<br><b>PDBTitle:</b> crystal structure of proline utilization a (puta) from bdellovibrio2 bacteriovorus inactivated by n-propargylglycine               |
| 109 | <a href="#">d1jpdX2</a> | Alignment | not modelled | 21.8 | 21 | <b>Fold:</b> Enolase N-terminal domain-like<br><b>Superfamily:</b> Enolase N-terminal domain-like<br><b>Family:</b> Enolase N-terminal domain-like   |
| 110 | <a href="#">d2jera1</a> | Alignment | not modelled | 21.8 | 20 | <b>Fold:</b> Pentain, beta/alpha-propeller<br><b>Superfamily:</b> Pentain<br><b>Family:</b> Porphyromonas-type peptidylarginine deiminase  |
| 111 | <a href="#">c4yfbD_</a> | Alignment | not modelled | 21.5 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> protein related to penicillin acylase;<br><b>PDBTitle:</b> structure of n-acylhomoserine lactone acylase macq in complex with2 phenylacetic acid                                       |
| 112 | <a href="#">c3pefA_</a> | Alignment | not modelled | 21.4 | 13 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 6-phosphogluconate dehydrogenase, nad-binding;<br><b>PDBTitle:</b> crystal structure of gamma-hydroxybutyrate dehydrogenase from2 geobacter metallireducens in complex with nadp+ |
| 113 | <a href="#">c6cboB_</a> | Alignment | not modelled | 21.0 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> c-6' aminotransferase;<br><b>PDBTitle:</b> x-ray structure of genb1 from micromonospora echinospora in complex2 with neamine and plp (as the external aldimine)                      |
| 114 | <a href="#">c4xvzB_</a> | Alignment | not modelled | 20.6 | 33 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> mycinamicin iii 3''-o-methyltransferase;<br><b>PDBTitle:</b> mycf mycinamicin iii 3'-o-methyltransferase in complex with mg  |
| 115 | <a href="#">d1vpxa_</a> | Alignment | not modelled | 20.4 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase  |
| 116 | <a href="#">d1joga_</a> | Alignment | not modelled | 20.3 | 26 | <b>Fold:</b> Four-helical up-and-down bundle<br><b>Superfamily:</b> Nucleotidyltransferase substrate binding subunit/domain<br><b>Family:</b> Family 1 bi-partite nucleotidyltransferase subunit   |
| 117 | <a href="#">c3r5zB_</a> | Alignment | not modelled | 20.3 | 22 | <b>PDB header:</b> unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative uncharacterized protein;<br><b>PDBTitle:</b> structure of a deazaflavin-dependent reductase from nocardia2 farcinica, with co-factor f420                              |
| 118 | <a href="#">c3omeE_</a> | Alignment | not modelled | 20.3 | 15 | <b>PDB header:</b> lyase<br><b>Chain:</b> E: <b>PDB Molecule:</b> enoyl-coa hydratase;<br><b>PDBTitle:</b> crystal structure of a probable enoyl-coa hydratase from mycobacterium2 smegmatis   |
| 119 | <a href="#">c5ddwD_</a> | Alignment | not modelled | 20.2 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> crmg;<br><b>PDBTitle:</b> crystal structure of aminotransferase crmg from actinoalloteichus sp.2 wh1-2216-6 in complex with the pmp external aldimine adduct with3 caerulomycin m    |
| 120 | <a href="#">c2jerG_</a> | Alignment | not modelled | 20.2 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> G: <b>PDB Molecule:</b> agmatine deiminase;<br><b>PDBTitle:</b> agmatine deiminase of enterococcus faecalis catalyzing its2 reaction.  |