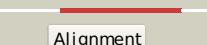
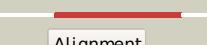


# Phyre<sup>2</sup>

|               |                             |
|---------------|-----------------------------|
| Email         | i.a.kelley@imperial.ac.uk   |
| Description   | P04335                      |
| Date          | Thu Jan 5 10:58:13 GMT 2012 |
| Unique Job ID | 8221a05f06a0b290            |

Detailed template information

| #  | Template | Alignment Coverage                                                                  | 3D Model                                                                            | Confidence | % i.d. | Template Information                                                                                                                                                                                                                      |
|----|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | c3mveB_  |    |    | 100.0      | 42     | <b>PDB header:</b> lyase<br><b>Chain:</b> B; <b>PDB Molecule:</b> upf0255 protein vv1_0328;<br><b>PDBTitle:</b> crystal structure of a novel pyruvate decarboxylase                                                                       |
| 2  | d2jbwA1  |    |    | 100.0      | 21     | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> 2,6-dihydropseudooxynicotine hydrolase-like                                                                                             |
| 3  | c3fnbB_  |    |    | 100.0      | 14     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> acylaminocyl peptidase smu_737;<br><b>PDBTitle:</b> crystal structure of acylaminocyl peptidase smu_737 from2 streptococcus mutans ua159                            |
| 4  | c2jbwB_  |    |    | 100.0      | 20     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> 2,6-dihydroxy-pseudo-oxynicotine hydrolase;<br><b>PDBTitle:</b> crystal structure of the 2,6-dihydroxy-pseudo-oxynicotine2 hydrolase.                               |
| 5  | c2ecfA_  |  |  | 100.0      | 19     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> dipeptidyl peptidase iv;<br><b>PDBTitle:</b> crystal structure of dipeptidyl aminopeptidase iv from2 stenotrophomonas maltophilia                                   |
| 6  | d1l7aa_  |  |  | 100.0      | 18     | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Acetyl xylan esterase-like                                                                                                              |
| 7  | c2eepA_  |  |  | 100.0      | 18     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> dipeptidyl aminopeptidase iv, putative;<br><b>PDBTitle:</b> prolyl tripeptidyl aminopeptidase complexed with an inhibitor                                           |
| 8  | c3azqA_  |  |  | 100.0      | 18     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> aminopeptidase;<br><b>PDBTitle:</b> crystal structure of puromycin hydrolase s511a mutant complexed with2 pgg                                                       |
| 9  | c2hu7A_  |  |  | 100.0      | 12     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> acylaminocid-acid-releasing enzyme;<br><b>PDBTitle:</b> binding of inhibitors by acylaminocyl peptidase                                                             |
| 10 | c2g5tA_  |  |  | 100.0      | 13     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> dipeptidyl peptidase 4;<br><b>PDBTitle:</b> crystal structure of human dipeptidyl peptidase iv (dppiv)2 complexed with cyanopyrrolidine (c5-pro-pro) inhibitor 21ag |
| 11 | c1z68A_  |  |  | 100.0      | 12     | <b>PDB header:</b> lyase<br><b>Chain:</b> A; <b>PDB Molecule:</b> fibroblast activation protein, alpha subunit;<br><b>PDBTitle:</b> crystal structure of human fibroblast activation protein alpha                                        |

|    |                         |  |              |       |    |                                                                                                                                                                                                                                                                      |
|----|-------------------------|--|--------------|-------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | <a href="#">c2qtbB_</a> |  |              | 100.0 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> dipeptidyl peptidase 4;<br><b>PDBTitle:</b> human dipeptidyl peptidase iv/cd26 in complex with a 4-aryl2 cyclohexylalanine inhibitor                                                           |
| 13 | <a href="#">d1vlqa_</a> |  |              | 100.0 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Acetyl xylan esterase-like                                                                                                                                         |
| 14 | <a href="#">c3hlkB_</a> |  |              | 100.0 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> acyl-coenzyme a thioesterase 2, mitochondrial;<br><b>PDBTitle:</b> crystal structure of human mitochondrial acyl-coa2 thioesterase (acot2)                                                     |
| 15 | <a href="#">c3g8yA_</a> |  |              | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> susd/rabg-associated esterase-like protein;<br><b>PDBTitle:</b> crystal structure of a putative hydrolase (bvu_4111) from bacteroides2 vulgatus atcc 8482 at 1.90 a resolution                 |
| 16 | <a href="#">c1l7qA_</a> |  |              | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> cocaine esterase;<br><b>PDBTitle:</b> ser117ala mutant of bacterial cocaine esterase coce                                                                                                      |
| 17 | <a href="#">c3ib3A_</a> |  |              | 100.0 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> coce/nond family hydrolase;<br><b>PDBTitle:</b> crystal structure of sacol2612 - coce/nond family hydrolase from2 staphylococcus aureus                                                        |
| 18 | <a href="#">c3k2iA_</a> |  |              | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> acyl-coenzyme a thioesterase 4;<br><b>PDBTitle:</b> human acyl-coenzyme a thioesterase 4                                                                                                       |
| 19 | <a href="#">c2hdwB_</a> |  |              | 100.0 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> hypothetical protein pa2218;<br><b>PDBTitle:</b> crystal structure of hypothetical protein pa2218 from pseudomonas2 aeruginosa                                                                 |
| 20 | <a href="#">d1ju3a2</a> |  |              | 100.0 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> PepX catalytic domain-like                                                                                                                                         |
| 21 | <a href="#">c3fcyB_</a> |  | not modelled | 100.0 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> xylan esterase 1;<br><b>PDBTitle:</b> crystal structure of acetyl xylan esterase 1 from2 thermoanaerobacterium sp. jw/sl ys485                                                                 |
| 22 | <a href="#">c2o2gA_</a> |  | not modelled | 100.0 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A; <b>PDB Molecule:</b> dienelactone hydrolase;<br><b>PDBTitle:</b> crystal structure of dienelactone hydrolase (yp_324580.1) from2 anabaena variabilis atcc 29413 at 1.92 a resolution                                |
| 23 | <a href="#">d1hlga_</a> |  | not modelled | 100.0 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Gastric lipase                                                                                                                                                     |
| 24 | <a href="#">c2b9vB_</a> |  | not modelled | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> alpha-amino acid ester hydrolase;<br><b>PDBTitle:</b> acetobacter turbidans alpha-amino acid ester hydrolase                                                                                   |
| 25 | <a href="#">c2bkLB_</a> |  | not modelled | 100.0 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B; <b>PDB Molecule:</b> prolyl endopeptidase;<br><b>PDBTitle:</b> structural and mechanistic analysis of two prolyl2 endopeptidases: role of inter-domain dynamics in3 catalysis and specificity                       |
| 26 | <a href="#">c1xfdD_</a> |  | not modelled | 100.0 | 15 | <b>PDB header:</b> membrane protein<br><b>Chain:</b> D; <b>PDB Molecule:</b> dipeptidyl aminopeptidase-like protein 6;<br><b>PDBTitle:</b> structure of a human a-type potassium channel accelerating factor2 dppx, a member of the dipeptidyl aminopeptidase family |
| 27 | <a href="#">d2b9va2</a> |  | not modelled | 100.0 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> PepX catalytic domain-like                                                                                                                                         |
|    |                         |  |              |       |    | <b>PDB header:</b> hydrolase                                                                                                                                                                                                                                         |

|    |                         |           |              |      |    |                                                                                                                                                                                                                                                |
|----|-------------------------|-----------|--------------|------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 | <a href="#">c3ksrA</a>  | Alignment | not modelled | 99.9 | 16 | <b>Chain:</b> A: <b>PDB Molecule:</b> putative serine hydrolase;<br><b>PDBTitle:</b> crystal structure of a putative serine hydrolase (xcc3885) from2 xanthomonas campestris pv. campestris at 2.69 a resolution                               |
| 29 | <a href="#">d1k8qa</a>  | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Gastric lipase                                                                                                                               |
| 30 | <a href="#">c1qfmaA</a> | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein (prolyl oligopeptidase);<br><b>PDBTitle:</b> prolyl oligopeptidase from porcine muscle                                                                           |
| 31 | <a href="#">d1mpxa2</a> | Alignment | not modelled | 99.9 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> PepX catalytic domain-like                                                                                                                   |
| 32 | <a href="#">c2xe4A</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase/inhibitor<br><b>Chain:</b> A: <b>PDB Molecule:</b> oligopeptidase b;<br><b>PDBTitle:</b> structure of oligopeptidase b from leishmania major                                                                      |
| 33 | <a href="#">c2wtmC</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> est1e;<br><b>PDBTitle:</b> est1e from butyribrio proteoластicus                                                                                                          |
| 34 | <a href="#">c3iumA</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> prolyl endopeptidase;<br><b>PDBTitle:</b> appep_wbx opened state                                                                                                         |
| 35 | <a href="#">c1yr2A</a>  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> prolyl oligopeptidase;<br><b>PDBTitle:</b> structural and mechanistic analysis of two prolyl endopeptidases: role2 of inter-domain dynamics in catalysis and specificity |
| 36 | <a href="#">c1mpxB</a>  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> alpha-amino acid ester hydrolase;<br><b>PDBTitle:</b> alpha-amino acid ester hydrolase labeled with selenomethionine                                                     |
| 37 | <a href="#">c2vavL</a>  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> L: <b>PDB Molecule:</b> acetyl-coa--deacetylcephalosporin c<br><b>PDBTitle:</b> crystal structure of deacetylcephalosporin c2 acetyltransferase (dac-soak)                                     |
| 38 | <a href="#">c2r11D</a>  | Alignment | not modelled | 99.9 | 10 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> carboxylesterase np;<br><b>PDBTitle:</b> crystal structure of putative hydrolase (2632844) from2 bacillus subtilis at 1.96 a resolution                                  |
| 39 | <a href="#">c1cr6A</a>  | Alignment | not modelled | 99.9 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> epoxide hydrolase;<br><b>PDBTitle:</b> crystal structure of murine soluble epoxide hydrolase2 complexed with cpx inhibitor                                               |
| 40 | <a href="#">d1qfma2</a> | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Prolyl oligopeptidase, C-terminal domain                                                                                                     |
| 41 | <a href="#">d2fuka1</a> | Alignment | not modelled | 99.9 | 19 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Atu1826-like                                                                                                                                 |
| 42 | <a href="#">c3jw8A</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> mgll protein;<br><b>PDBTitle:</b> crystal structure of human mono-glyceride lipase                                                                                       |
| 43 | <a href="#">c3llcA</a>  | Alignment | not modelled | 99.9 | 14 | <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_002548124.1) from2 agrobacterium vitis s4 at 1.80 a resolution                       |
| 44 | <a href="#">c3qm1A</a>  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> cinnamoyl esterase;<br><b>PDBTitle:</b> crystal structure of the lactobacillus johnsonii cinnamoyl esterase2 ljj0536 s106a mutant in complex with ethylferulate, form ii |
| 45 | <a href="#">c3hjuB</a>  | Alignment | not modelled | 99.9 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> monoglyceride lipase;<br><b>PDBTitle:</b> crystal structure of human monoglyceride lipase                                                                                |
| 46 | <a href="#">d2vata1</a> | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> O-acetyltransferase                                                                                                                          |
| 47 | <a href="#">c3v48B</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative aminoacrylate hydrolase rutd;<br><b>PDBTitle:</b> crystal structure of the putative alpha/beta hydrolase rutd from2 e.coli                                      |
| 48 | <a href="#">c2y6vB</a>  | Alignment | not modelled | 99.9 | 15 | <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) from2 saccharomyces cerevisiae (crystal form i)                   |
| 49 | <a href="#">c3i1iA</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> homoserine o-acetyltransferase;<br><b>PDBTitle:</b> x-ray crystal structure of homoserine o-acetyltransferase from2 bacillus anthracis                                 |
| 50 | <a href="#">d1jfra</a>  | Alignment | not modelled | 99.9 | 22 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Lipase                                                                                                                                       |
| 51 | <a href="#">c3doiA</a>  | Alignment | not modelled | 99.9 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> esterase;<br><b>PDBTitle:</b> crystal structure of a thermostable esterase complex with2 paraoxon                                                                        |
| 52 | <a href="#">d1lnsa3</a> | Alignment | not modelled | 99.9 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> PepX catalytic domain-like                                                                                                                   |
| 53 | <a href="#">c3trdA</a>  | Alignment | not modelled | 99.9 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alpha/beta hydrolase;<br><b>PDBTitle:</b> structure of an alpha-beta serine hydrolase homologue from coxiella burnetii                                                   |
| 54 | <a href="#">c3om8A</a>  | Alignment | not modelled | 99.9 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable hydrolase;                                                                                                                                                      |

|    |                         |           |              |      |    |                                                                                                                                                                                                                                                                                                                                                     |
|----|-------------------------|-----------|--------------|------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 54 | <a href="#">c3umoa</a>  | Alignment | not modelled | 99.9 | 10 | <b>PDB Title:</b> the crystal structure of a hydrolase from pseudomonas aeruginosa pa01<br><b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> the crystal structure of the protein with unknown function from2 staphylococcus aureus subsp. aureus mu50 |
| 55 | <a href="#">c3h04A</a>  | Alignment | not modelled | 99.9 | 11 | <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                                                                                                                                                |
| 56 | <a href="#">c2q0xA</a>  | Alignment | not modelled | 99.9 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Atu1826-like                                                                                                                                                                                                                                      |
| 57 | <a href="#">d2i3da1</a> | Alignment | not modelled | 99.9 | 19 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein atu1826;<br><b>PDBTitle:</b> crystal structure of protein of unknown function atu1826, a putative2 alpha/beta hydrolase from agrobacterium tumefaciens                                                                       |
| 58 | <a href="#">c2i3dA</a>  | Alignment | not modelled | 99.9 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> H: <b>PDB Molecule:</b> 3-oxoadipate enol-lactonase;<br><b>PDBTitle:</b> crystal structure of the enol-lactonase from burkholderia2 xenovorans lb400                                                                                                                                                  |
| 59 | <a href="#">c2xuaH</a>  | Alignment | not modelled | 99.9 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Proline iminopeptidase-like                                                                                                                                                                                                                       |
| 60 | <a href="#">d1mtza</a>  | Alignment | not modelled | 99.9 | 20 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Hypothetical protein TT1662                                                                                                                                                                                                                       |
| 61 | <a href="#">d2hu7a2</a> | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Acylamino-acid-releasing enzyme, C-terminal domain                                                                                                                                                                                                |
| 62 | <a href="#">d1orva2</a> | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> DPP6 catalytic domain-like                                                                                                                                                                                                                        |
| 63 | <a href="#">c2gruA</a>  | Alignment | not modelled | 99.9 | 12 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> crystal structure of an alpha/beta hydrolase superfamily protein from2 enterococcus faecalis                                                                                                         |
| 64 | <a href="#">d2bgra2</a> | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> DPP6 catalytic domain-like                                                                                                                                                                                                                        |
| 65 | <a href="#">d1lufoa</a> | Alignment | not modelled | 99.9 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Hypothetical protein TT1662                                                                                                                                                                                                                       |
| 66 | <a href="#">c3bxpA</a>  | Alignment | not modelled | 99.9 | 11 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative lipase/esterase;<br><b>PDBTitle:</b> crystal structure of a putative carboxylesterase (Ip_2923) from2 lactobacillus plantarum wcf1 at 1.70 a resolution                                                                                                              |
| 67 | <a href="#">d2b61a1</a> | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> O-acetyltransferase                                                                                                                                                                                                                               |
| 68 | <a href="#">c3qvmA</a>  | Alignment | not modelled | 99.9 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> olei00960;<br><b>PDBTitle:</b> the structure of olei00960, a hydrolase from oleispira antarctica                                                                                                                                                                              |
| 69 | <a href="#">c3h2iA</a>  | Alignment | not modelled | 99.9 | 17 | <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                                                                                                                                        |
| 70 | <a href="#">c2cjpa</a>  | Alignment | not modelled | 99.9 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> epoxide hydrolase;<br><b>PDBTitle:</b> structure of potato (solanum tuberosum) epoxide hydrolase i2 (steh1)                                                                                                                                                                   |
| 71 | <a href="#">c3fcxA</a>  | Alignment | not modelled | 99.9 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> s-formylglutathione hydrolase;<br><b>PDBTitle:</b> crystal structure of human esterase d                                                                                                                                                                                      |
| 72 | <a href="#">c3nuzF</a>  | Alignment | not modelled | 99.9 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> F: <b>PDB Molecule:</b> putative acetyl xylan esterase;<br><b>PDBTitle:</b> crystal structure of a putative acetyl xylan esterase (bf1801) from2 bacteroides fragilis nctc 9343 at 2.30 a resolution                                                                                                  |
| 73 | <a href="#">c3u1tA</a>  | Alignment | not modelled | 99.9 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dmma haloalkane dehalogenase;<br><b>PDBTitle:</b> haloalkane dehalogenase, dmma, of marine microbial origin                                                                                                                                                                   |
| 74 | <a href="#">c2yySA</a>  | Alignment | not modelled | 99.9 | 13 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> proline iminopeptidase-related protein;<br><b>PDBTitle:</b> crystal structure of the proline iminopeptidase-related protein2 ttha1809 from thermus thermophilus hb8                                                                               |
| 75 | <a href="#">c2qmqa</a>  | Alignment | not modelled | 99.9 | 8  | <b>PDB header:</b> signaling protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein ndrg2;<br><b>PDBTitle:</b> crystal structure of a n-myc downstream regulated 2 protein (ndrg2,2 syl4, ndr2, ai182517, au040374) from mus musculus at 1.70 a3 resolution                                                                                       |
| 76 | <a href="#">d1cr6a2</a> | Alignment | not modelled | 99.9 | 18 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Epoxyde hydrolase                                                                                                                                                                                                                                 |
| 77 | <a href="#">d2pl5a1</a> | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> O-acetyltransferase                                                                                                                                                                                                                               |
| 78 | <a href="#">d1b6ga</a>  | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Haloalkane dehalogenase                                                                                                                                                                                                                           |
| 79 | <a href="#">c2e3jA</a>  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> epoxide hydrolase ephb;<br><b>PDBTitle:</b> the crystal structure of epoxide hydrolase b (rv1938) from2 mycobacterium tuberculosis at 2.1 angstrom                                                                                                                            |
| 80 | <a href="#">c1InsA</a>  | Alignment | not modelled | 99.9 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> x-prolyl dipeptidyl aminopeptidase;<br><b>PDBTitle:</b> crystal structure analysis of the x-prolyl dipeptidyl2 aminopeptidase from lactococcus lactis                                                                                                                         |

|     |                         |  |           |              |      |    |                                                                                                                                                                                                                                                                                |
|-----|-------------------------|--|-----------|--------------|------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 81  | <a href="#">d1wmla</a>  |  | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Proline iminopeptidase-like                                                                                                                                                  |
| 82  | <a href="#">c3dyvA</a>  |  | Alignment | not modelled | 99.9 | 8  | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> esterase d;<br><b>PDBTitle:</b> snapshots of esterase d from lactobacillus rhamnosus:2 insights into a rotation driven catalytic mechanism                                                               |
| 83  | <a href="#">d1a8qa</a>  |  | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Haloperoxidase                                                                                                                                                               |
| 84  | <a href="#">d1q0ra</a>  |  | Alignment | not modelled | 99.9 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Aclacinomycin methylesterase RdmC                                                                                                                                            |
| 85  | <a href="#">d1zd3a2</a> |  | Alignment | not modelled | 99.9 | 18 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Epoxide hydrolase                                                                                                                                                            |
| 86  | <a href="#">c3bwxA</a>  |  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alpha/beta hydrolase;<br><b>PDBTitle:</b> crystal structure of an alpha/beta hydrolase (yp_496220.1) from novosphingobium aromaticivorans dsm 12444 at 1.50 a resolution                                 |
| 87  | <a href="#">c3f67A</a>  |  | Alignment | not modelled | 99.9 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative dienelactone hydrolase;<br><b>PDBTitle:</b> crystal structure of putative dienelactone hydrolase from klebsiella2 pneumoniae subsp. pneumoniae mgh 78578                                        |
| 88  | <a href="#">c3e3aA</a>  |  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> possible peroxidase bpoc;<br><b>PDBTitle:</b> the structure of rv0554 from mycobacterium tuberculosis                                                                                               |
| 89  | <a href="#">d1dina</a>  |  | Alignment | not modelled | 99.9 | 19 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Dienelactone hydrolase                                                                                                                                                       |
| 90  | <a href="#">d1xfda2</a> |  | Alignment | not modelled | 99.9 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> DPP6 catalytic domain-like                                                                                                                                                   |
| 91  | <a href="#">c3e0xB</a>  |  | Alignment | not modelled | 99.9 | 13 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> lipase-esterase related protein;<br><b>PDBTitle:</b> the crystal structure of a lipase-esterase related protein2 from clostridium acetobutylicum atcc 824                    |
| 92  | <a href="#">c3oosA</a>  |  | Alignment | not modelled | 99.9 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alpha/beta hydrolase family protein;<br><b>PDBTitle:</b> the structure of an alpha/beta fold family hydrolase from bacillus2 anthracis str. sterne                                                       |
| 93  | <a href="#">d1azwa</a>  |  | Alignment | not modelled | 99.9 | 13 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Proline iminopeptidase-like                                                                                                                                                  |
| 94  | <a href="#">c2qjwA</a>  |  | Alignment | not modelled | 99.9 | 12 | <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 3.135 a resolution |
| 95  | <a href="#">c2ockA</a>  |  | Alignment | not modelled | 99.9 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> valacyclovir hydrolase;<br><b>PDBTitle:</b> crystal structure of valacyclovir hydrolase d123n mutant                                                                                                     |
| 96  | <a href="#">d1m33a</a>  |  | Alignment | not modelled | 99.9 | 12 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Biotin biosynthesis protein BioH                                                                                                                                             |
| 97  | <a href="#">c3bjrA</a>  |  | Alignment | not modelled | 99.8 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative carboxylesterase;<br><b>PDBTitle:</b> crystal structure of a putative carboxylesterase (lp_1002) from2 lactobacillus plantarum wcf1 at 2.09 a resolution                                        |
| 98  | <a href="#">d1hkha</a>  |  | Alignment | not modelled | 99.8 | 17 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Haloperoxidase                                                                                                                                                               |
| 99  | <a href="#">c2veoA</a>  |  | Alignment | not modelled | 99.8 | 14 | <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 its2 closed state.                                                                                                       |
| 100 | <a href="#">c3d0kA</a>  |  | Alignment | not modelled | 99.8 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative poly(3-hydroxybutyrate) depolymerase lpqc;<br><b>PDBTitle:</b> crystal structure of the lpqc, poly(3-hydroxybutyrate) depolymerase2 from bordetella parapertussis                               |
| 101 | <a href="#">c1u2eA</a>  |  | Alignment | not modelled | 99.8 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-hydroxy-6-ketonona-2,4-dienedioic acid<br><b>PDBTitle:</b> crystal structure of the c-c bond hydrolase mhpc                                                                                            |
| 102 | <a href="#">c2xt0A</a>  |  | Alignment | not modelled | 99.8 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> haloalkane dehalogenase;<br><b>PDBTitle:</b> dehalogenase dppa from plesiocystis pacifica sir-i                                                                                                          |
| 103 | <a href="#">c2xmzA</a>  |  | Alignment | not modelled | 99.8 | 11 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> hydrolase, alpha/beta hydrolase fold family;<br><b>PDBTitle:</b> structure of menh from s. aureus                                                                                                            |
| 104 | <a href="#">c3nw0A</a>  |  | Alignment | not modelled | 99.8 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> proline iminopeptidase;<br><b>PDBTitle:</b> crystal structure of proline iminopeptidase mycobacterium smegmatis                                                                                          |
| 105 | <a href="#">c2fx5A</a>  |  | Alignment | not modelled | 99.8 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> lipase;<br><b>PDBTitle:</b> pseudomonas mendocina lipase                                                                                                                                                 |
| 106 | <a href="#">d1uxoa</a>  |  | Alignment | not modelled | 99.8 | 14 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> YdeN-like                                                                                                                                                                    |

|     |                         |  |           |              |      |    |                                                                                                                                                                                                                            |
|-----|-------------------------|--|-----------|--------------|------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 107 | <a href="#">c3d59B_</a> |  | Alignment | not modelled | 99.8 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> platelet-activating factor acetylhydrolase;<br><b>PDBTitle:</b> crystal structure of human plasma platelet activating factor acetylhydrolase         |
| 108 | <a href="#">c3ls2D_</a> |  | Alignment | not modelled | 99.8 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> s-formylglutathione hydrolase;<br><b>PDBTitle:</b> crystal structure of an s-formylglutathione hydrolase from2 pseudoalteromonas haloplanktis tac125 |
| 109 | <a href="#">c1zoiC_</a> |  | Alignment | not modelled | 99.8 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> esterase;<br><b>PDBTitle:</b> crystal structure of a stereoselective esterase from2 pseudomonas putida ifo12996                                      |
| 110 | <a href="#">c2rauA_</a> |  | Alignment | not modelled | 99.8 | 17 | <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       |
| 111 | <a href="#">c3fsgC_</a> |  | Alignment | not modelled | 99.8 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> alpha/beta superfamily hydrolase;<br><b>PDBTitle:</b> crystal structure of alpha/beta superfamily hydrolase from oenococcus2 oeni psu-1              |
| 112 | <a href="#">c3ed1E_</a> |  | Alignment | not modelled | 99.8 | 15 | <b>PDB header:</b> hydrolase receptor<br><b>Chain:</b> E: <b>PDB Molecule:</b> gibberellin receptor gid1;<br><b>PDBTitle:</b> crystal structure of rice gid1 complexed with ga3                                            |
| 113 | <a href="#">c3kdaB_</a> |  | Alignment | not modelled | 99.8 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> cfr inhibitory factor (cif);<br><b>PDBTitle:</b> crystal structure of the cfr inhibitory factor cif with the h269a2 mutation                         |
| 114 | <a href="#">d1a8sa_</a> |  | Alignment | not modelled | 99.8 | 16 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Haloperoxidase                                                                                                           |
| 115 | <a href="#">c2vf2A_</a> |  | Alignment | not modelled | 99.8 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-hydroxy-6-oxo-6-phenylhexa-2,4-dienoate<br><b>PDBTitle:</b> x-ray crystal structure of hsad from mycobacterium tuberculosis                        |
| 116 | <a href="#">c3a2nF_</a> |  | Alignment | not modelled | 99.8 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> F: <b>PDB Molecule:</b> haloalkane dehalogenase;<br><b>PDBTitle:</b> crystal structure of dbja (wild type type ii p21)                                                       |
| 117 | <a href="#">d1a88a_</a> |  | Alignment | not modelled | 99.8 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Haloperoxidase                                                                                                           |
| 118 | <a href="#">c3fobA_</a> |  | Alignment | not modelled | 99.8 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> bromoperoxidase;<br><b>PDBTitle:</b> crystal structure of bromoperoxidase from bacillus anthracis                                               |
| 119 | <a href="#">d2rhwa1</a> |  | Alignment | not modelled | 99.8 | 16 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Carbon-carbon bond hydrolase                                                                                             |
| 120 | <a href="#">d1c4xa_</a> |  | Alignment | not modelled | 99.8 | 15 | <b>Fold:</b> alpha/beta-Hydrolases<br><b>Superfamily:</b> alpha/beta-Hydrolases<br><b>Family:</b> Carbon-carbon bond hydrolase                                                                                             |