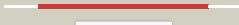
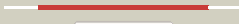
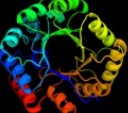


# Phyre2

|               |                             |
|---------------|-----------------------------|
| Email         | I.a.kelley@imperial.ac.uk   |
| Description   | P51020                      |
| Date          | Thu Jan 5 12:04:49 GMT 2012 |
| Unique Job ID | 48390544aa74ead0            |

Detailed template information

| #  | Template                | Alignment Coverage                                                                               | 3D Model                                                                            | Confidence | % i.d. | Template Information                                                                                                                                                                                                                                    |
|----|-------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <a href="#">c1nvmG_</a> | <br>Alignment   |    | 100.0      | 82     | <b>PDB header:</b> lyase/oxidoreductase<br><b>Chain:</b> G: <b>PDB Molecule:</b> 4-hydroxy-2-oxovalerate aldolase;<br><b>PDBTitle:</b> crystal structure of a bifunctional aldolase-dehydrogenase :2 sequestering a reactive and volatile intermediate  |
| 2  | <a href="#">c3ivuB_</a> | <br>Alignment   |    | 100.0      | 20     | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> homocitrate synthase, mitochondrial;<br><b>PDBTitle:</b> homocitrate synthase lys4 bound to 2-og                                                                                |
| 3  | <a href="#">c1rr2A_</a> | <br>Alignment   |    | 100.0      | 18     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> transcarboxylase 5s subunit;<br><b>PDBTitle:</b> propionibacterium shermanii transcarboxylase 5s subunit bound to 2-2 ketobutyric acid                                          |
| 4  | <a href="#">d1nvma2</a> | <br>Alignment   |    | 100.0      | 83     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> HMGL-like                                                                                                                                                          |
| 5  | <a href="#">c1sr9A_</a> | <br>Alignment |  | 100.0      | 14     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-isopropylmalate synthase;<br><b>PDBTitle:</b> crystal structure of leuA from mycobacterium tuberculosis                                                                       |
| 6  | <a href="#">c2zyfA_</a> | <br>Alignment |  | 100.0      | 19     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> homocitrate synthase;<br><b>PDBTitle:</b> crystal structure of homocitrate synthase from thermus thermophilus2 complexed with magnesium ion and alpha-ketoglutarate             |
| 7  | <a href="#">c2nx9B_</a> | <br>Alignment |  | 100.0      | 19     | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> oxaloacetate decarboxylase 2, subunit alpha;<br><b>PDBTitle:</b> crystal structure of the carboxyltransferase domain of the2 oxaloacetate decarboxylase na+ pump from vibrio cholerae |
| 8  | <a href="#">c3bg5C_</a> | <br>Alignment |  | 100.0      | 19     | <b>PDB header:</b> ligase<br><b>Chain:</b> C: <b>PDB Molecule:</b> pyruvate carboxylase;<br><b>PDBTitle:</b> crystal structure of staphylococcus aureus pyruvate2 carboxylase                                                                           |
| 9  | <a href="#">c3hpxB_</a> | <br>Alignment |  | 100.0      | 16     | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-isopropylmalate synthase;<br><b>PDBTitle:</b> crystal structure of mycobacterium tuberculosis leuA active site2 domain 1-425 (truncation mutant delta:426-644)                |
| 10 | <a href="#">c3bg3B_</a> | <br>Alignment |  | 100.0      | 16     | <b>PDB header:</b> ligase<br><b>Chain:</b> B: <b>PDB Molecule:</b> pyruvate carboxylase, mitochondrial;<br><b>PDBTitle:</b> crystal structure of human pyruvate carboxylase (missing2 the biotin carboxylase domain at the n-terminus)                  |
| 11 | <a href="#">c3bleA_</a> | <br>Alignment |  | 100.0      | 23     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> citramalate synthase from leptospira interrogans;<br><b>PDBTitle:</b> crystal structure of the catalytic domain of licms in2 complexed with malonate                            |

|    |                         |           |                                                                                     |       |    |                                                                                                                                                                                                                                                                      |
|----|-------------------------|-----------|-------------------------------------------------------------------------------------|-------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | <a href="#">d1rqba2</a> | Alignment |    | 100.0 | 20 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> HMGL-like                                                                                                                                                                       |
| 13 | <a href="#">c2ftpA</a>  | Alignment |    | 100.0 | 23 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> hydroxymethylglutaryl-coa lyase;<br><b>PDBTitle:</b> crystal structure of hydroxymethylglutaryl-coa lyase from pseudomonas2 aeruginosa                                                             |
| 14 | <a href="#">c3dxiB</a>  | Alignment |    | 100.0 | 19 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative aldolase;<br><b>PDBTitle:</b> crystal structure of the n-terminal domain of a putative2 aldolase (bvu_2661) from bacteroides vulgatus                     |
| 15 | <a href="#">c1ydoC</a>  | Alignment |    | 100.0 | 22 | <b>PDB header:</b> lyase<br><b>Chain:</b> C: <b>PDB Molecule:</b> hmg-coa lyase;<br><b>PDBTitle:</b> crystal structure of the bacillis subtilis hmg-coa lyase, northeast2 structural genomics target sr181.                                                          |
| 16 | <a href="#">c2cw6B</a>  | Alignment |    | 100.0 | 22 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> hydroxymethylglutaryl-coa lyase, mitochondrial;<br><b>PDBTitle:</b> crystal structure of human hmg-coa lyase: insights into2 catalysis and the molecular basis for3 hydroxymethylglutaric aciduria |
| 17 | <a href="#">c1ydnA</a>  | Alignment |    | 100.0 | 21 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> hydroxymethylglutaryl-coa lyase;<br><b>PDBTitle:</b> crystal structure of the hmg-coa lyase from brucella melitensis,2 northeast structural genomics target lr35.                                  |
| 18 | <a href="#">c3ewbX</a>  | Alignment |  | 100.0 | 26 | <b>PDB header:</b> transferase<br><b>Chain:</b> X: <b>PDB Molecule:</b> 2-isopropylmalate synthase;<br><b>PDBTitle:</b> crystal structure of n-terminal domain of putative 2-2 isopropylmalate synthase from listeria monocytogenes                                  |
| 19 | <a href="#">d1sr9a2</a> | Alignment |  | 100.0 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> HMGL-like                                                                                                                                                                       |
| 20 | <a href="#">c3eegB</a>  | Alignment |  | 100.0 | 23 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 2-isopropylmalate synthase;<br><b>PDBTitle:</b> crystal structure of a 2-isopropylmalate synthase from2 cytophaga hutchinsonii                                                               |
| 21 | <a href="#">c2qf7A</a>  | Alignment | not modelled                                                                        | 100.0 | 18 | <b>PDB header:</b> ligase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate carboxylase protein;<br><b>PDBTitle:</b> crystal structure of a complete multifunctional pyruvate carboxylase2 from rhizobium etli                                                       |
| 22 | <a href="#">d1nvma1</a> | Alignment | not modelled                                                                        | 98.9  | 76 | <b>Fold:</b> RuvA C-terminal domain-like<br><b>Superfamily:</b> post-HMGL domain-like<br><b>Family:</b> DmpG/LeuA communication domain-like                                                                                                                          |
| 23 | <a href="#">d1xcfa</a>  | Alignment | not modelled                                                                        | 98.7  | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phoshate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                         |
| 24 | <a href="#">c2ekcA</a>  | Alignment | not modelled                                                                        | 98.5  | 12 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tryptophan synthase alpha chain;<br><b>PDBTitle:</b> structural study of project id aq_1548 from aquifex aeolicus vf5                                                                              |
| 25 | <a href="#">c3thaB</a>  | Alignment | not modelled                                                                        | 98.4  | 13 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> tryptophan synthase alpha chain;<br><b>PDBTitle:</b> tryptophan synthase subunit alpha from campylobacter jejuni.                                                                                  |
| 26 | <a href="#">c3t7vA</a>  | Alignment | not modelled                                                                        | 98.4  | 13 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methylornithine synthase pylb;<br><b>PDBTitle:</b> crystal structure of methylornithine synthase (pylb)                                                                                      |
| 27 | <a href="#">c3cixA</a>  | Alignment | not modelled                                                                        | 98.3  | 14 | <b>PDB header:</b> adomet binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> fefe-hydrogenase maturase;<br><b>PDBTitle:</b> x-ray structure of the [fefe]-hydrogenase maturase hyde from2 thermotoga maritima in complex with thiocyanate                      |
| 28 | <a href="#">c1r30A</a>  | Alignment | not modelled                                                                        | 98.3  | 11 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> biotin synthase;<br><b>PDBTitle:</b> the crystal structure of biotin synthase, an s-2 adenosylmethionine-dependent radical enzyme                                                            |
|    |                         |           |                                                                                     |       |    | <b>Fold:</b> TIM beta/alpha-barrel                                                                                                                                                                                                                                   |

|    |                         |           |              |      |    |                                                                                                                                                                                                                                                                                                                                       |
|----|-------------------------|-----------|--------------|------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 | <a href="#">d1r30a_</a> | Alignment | not modelled | 98.3 | 11 | <b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> Biotin synthase                                                                                                                                                                                                                                                             |
| 30 | <a href="#">d1rd5a_</a> | Alignment | not modelled | 98.3 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                                         |
| 31 | <a href="#">d1qopa_</a> | Alignment | not modelled | 98.2 | 19 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                                         |
| 32 | <a href="#">c3navB_</a> | Alignment | not modelled | 98.2 | 14 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> tryptophan synthase alpha chain;<br><b>PDBTitle:</b> crystal structure of an alpha subunit of tryptophan synthase from <i>Vibrio cholerae</i> O1 biovar El Tor str. n16961                                                                                          |
| 33 | <a href="#">d2zdra2</a> | Alignment | not modelled | 98.0 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> NeuB-like                                                                                                                                                                                                                                        |
| 34 | <a href="#">c3f4wA_</a> | Alignment | not modelled | 97.9 | 18 | <b>PDB header:</b> synthase, lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative hexulose 6 phosphate synthase;<br><b>PDBTitle:</b> the 1.65a crystal structure of 3-hexulose-6-phosphate2 synthase from <i>Salmonella typhimurium</i>                                                                                            |
| 35 | <a href="#">d1geqa_</a> | Alignment | not modelled | 97.9 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                                         |
| 36 | <a href="#">c3ajxA_</a> | Alignment | not modelled | 97.9 | 17 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-hexulose-6-phosphate synthase;<br><b>PDBTitle:</b> crystal structure of 3-hexulose-6-phosphate synthase                                                                                                                                                           |
| 37 | <a href="#">d1wbha1</a> | Alignment | not modelled | 97.8 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                                                 |
| 38 | <a href="#">c1xuzA_</a> | Alignment | not modelled | 97.7 | 14 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> polysialic acid capsule biosynthesis protein sIac;<br><b>PDBTitle:</b> crystal structure analysis of sialic acid synthase (neub) from <i>Neisseria meningitidis</i> , bound to Mn <sup>2+</sup> , phosphoenolpyruvate, and N-3 acetyl mannosaminitol |
| 39 | <a href="#">d1ad1a_</a> | Alignment | not modelled | 97.7 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydroxyterate synthetase-like<br><b>Family:</b> Dihydroxyterate synthetase                                                                                                                                                                                                |
| 40 | <a href="#">c3qc3B_</a> | Alignment | not modelled | 97.7 | 16 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> d-ribulose-5-phosphate-3-epimerase;<br><b>PDBTitle:</b> crystal structure of a d-ribulose-5-phosphate-3-epimerase (np_954699)2 from <i>Homo sapiens</i> at 2.20 Å resolution                                                                                    |
| 41 | <a href="#">d1vlia2</a> | Alignment | not modelled | 97.7 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> NeuB-like                                                                                                                                                                                                                                        |
| 42 | <a href="#">c3jr2D_</a> | Alignment | not modelled | 97.6 | 17 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> D: <b>PDB Molecule:</b> hexulose-6-phosphate synthase sgbh;<br><b>PDBTitle:</b> x-ray crystal structure of the Mg-bound 3-keto-l-gulonate-6-phosphate2 decarboxylase from <i>Vibrio cholerae</i> O1 biovar El Tor str. n16961                                                |
| 43 | <a href="#">c1vliA_</a> | Alignment | not modelled | 97.6 | 15 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> spore coat polysaccharide biosynthesis protein spse;<br><b>PDBTitle:</b> crystal structure of spore coat polysaccharide biosynthesis protein2 spse (bsu37870) from <i>Bacillus subtilis</i> at 2.38 Å resolution                                     |
| 44 | <a href="#">d1q6oa_</a> | Alignment | not modelled | 97.6 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Decarboxylase                                                                                                                                                                                                           |
| 45 | <a href="#">d1tqxa_</a> | Alignment | not modelled | 97.5 | 8  | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> D-ribulose-5-phosphate 3-epimerase                                                                                                                                                                                      |
| 46 | <a href="#">d1rvga_</a> | Alignment | not modelled | 97.5 | 20 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class II FBP aldolase                                                                                                                                                                                                                            |
| 47 | <a href="#">c1tx2A_</a> | Alignment | not modelled | 97.5 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dHps, dihydroxyterate synthase;<br><b>PDBTitle:</b> dihydroxyterate synthetase, with bound inhibitor manic, from <i>Bacillus anthracis</i>                                                                                                                    |
| 48 | <a href="#">d1tx2a_</a> | Alignment | not modelled | 97.5 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydroxyterate synthetase-like<br><b>Family:</b> Dihydroxyterate synthetase                                                                                                                                                                                                |
| 49 | <a href="#">c3c52B_</a> | Alignment | not modelled | 97.5 | 14 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> fructose-bisphosphate aldolase;<br><b>PDBTitle:</b> class II fructose-1,6-bisphosphate aldolase from <i>Helicobacter pylori</i> in complex with 3-phosphoglycolohydroxamic acid, a competitive inhibitor                                                            |
| 50 | <a href="#">d1ujpa_</a> | Alignment | not modelled | 97.5 | 21 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                                         |
| 51 | <a href="#">d1mxsa_</a> | Alignment | not modelled | 97.5 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                                                 |
| 52 | <a href="#">c3exsB_</a> | Alignment | not modelled | 97.4 | 14 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> rmpd (hexulose-6-phosphate synthase);<br><b>PDBTitle:</b> crystal structure of kgpdc from <i>Streptococcus mutans</i> in 2 complex with d-r5p                                                                                                                       |
| 53 | <a href="#">d1h1ya_</a> | Alignment | not modelled | 97.4 | 19 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> D-ribulose-5-phosphate 3-epimerase                                                                                                                                                                                      |
| 54 | <a href="#">d1tqja_</a> | Alignment | not modelled | 97.2 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> D-ribulose-5-phosphate 3-epimerase                                                                                                                                                                                      |

|    |                         |           |              |      |    |                                                                                                                                                                                                                                                                                                                   |
|----|-------------------------|-----------|--------------|------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 55 | <a href="#">dlvhca</a>  | Alignment | not modelled | 97.2 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                             |
| 56 | <a href="#">dlwa3a1</a> | Alignment | not modelled | 97.2 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                             |
| 57 | <a href="#">dld9ea</a>  | Alignment | not modelled | 97.2 | 10 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I DAHP synthetase                                                                                                                                                                                                      |
| 58 | <a href="#">c3nvtA</a>  | Alignment | not modelled | 97.1 | 16 | <b>PDB header:</b> transferase/isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase;<br><b>PDBTitle:</b> 1.95 angstrom crystal structure of a bifunctional 3-deoxy-7-2 phosphoheptulonate synthase/chorismate mutase (aroa) from listeria3 monocytogenes egd-e |
| 59 | <a href="#">dlrpxa</a>  | Alignment | not modelled | 97.0 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> D-ribulose-5-phosphate 3-epimerase                                                                                                                                                                  |
| 60 | <a href="#">c3js3C</a>  | Alignment | not modelled | 97.0 | 15 | <b>PDB header:</b> lyase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> crystal structure of type i 3-dehydroquinate dehydratase (arod) from2 clostridium difficile with covalent reaction intermediate                                                               |
| 61 | <a href="#">d1ka9f</a>  | Alignment | not modelled | 97.0 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Histidine biosynthesis enzymes                                                                                                                                                                      |
| 62 | <a href="#">d1thfd</a>  | Alignment | not modelled | 96.9 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Histidine biosynthesis enzymes                                                                                                                                                                      |
| 63 | <a href="#">c2c3zA</a>  | Alignment | not modelled | 96.9 | 11 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> indole-3-glycerol phosphate synthase;<br><b>PDBTitle:</b> crystal structure of a truncated variant of indole-3-2 glycerol phosphate synthase from sulfolobus solfataricus                                                                       |
| 64 | <a href="#">c3igsB</a>  | Alignment | not modelled | 96.9 | 16 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> n-acetylmannosamine-6-phosphate 2-epimerase 2;<br><b>PDBTitle:</b> structure of the salmonella enterica n-acetylmannosamine-6-phosphate2 2-epimerase                                                                                        |
| 65 | <a href="#">dlajza</a>  | Alignment | not modelled | 96.8 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase                                                                                                                                                                            |
| 66 | <a href="#">c3g8rA</a>  | Alignment | not modelled | 96.8 | 12 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable spore coat polysaccharide biosynthesis protein e;<br><b>PDBTitle:</b> crystal structure of putative spore coat polysaccharide biosynthesis2 protein e from chromobacterium violaceum atcc 12472                         |
| 67 | <a href="#">c2bdqA</a>  | Alignment | not modelled | 96.7 | 15 | <b>PDB header:</b> metal transport<br><b>Chain:</b> A: <b>PDB Molecule:</b> copper homeostasis protein cutc;<br><b>PDBTitle:</b> crystal structure of the putative copper homeostasis2 protein cutc from streptococcus agalactiae, northeast3 structural genomics target sar15.                                   |
| 68 | <a href="#">c2v82A</a>  | Alignment | not modelled | 96.7 | 16 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydro-3-deoxy-6-phosphogalactonate aldolase;<br><b>PDBTitle:</b> kdpgal complexed to kdpgal                                                                                                                                                 |
| 69 | <a href="#">dlj5ta</a>  | Alignment | not modelled | 96.6 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                     |
| 70 | <a href="#">c3tr9A</a>  | Alignment | not modelled | 96.6 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase;<br><b>PDBTitle:</b> structure of a dihydropteroate synthase (folp) in complex with pteroiC2 acid from coxiella burnetii                                                                                         |
| 71 | <a href="#">dlpiia2</a> | Alignment | not modelled | 96.6 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                     |
| 72 | <a href="#">c3stgA</a>  | Alignment | not modelled | 96.5 | 10 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydro-3-deoxyphosphooctonate aldolase;<br><b>PDBTitle:</b> crystal structure of a58p, del(n59), and loop 7 truncated mutant of 3-2 deoxy-d-manno-octulosonate 8-phosphate synthase (kdo8ps) from3 neisseria meningitidis              |
| 73 | <a href="#">c3pg8B</a>  | Alignment | not modelled | 96.5 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> phospho-2-dehydro-3-deoxyheptonate aldolase;<br><b>PDBTitle:</b> truncated form of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase2 from thermotoga maritima                                                                         |
| 74 | <a href="#">c3sz8D</a>  | Alignment | not modelled | 96.5 | 13 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 2-dehydro-3-deoxyphosphooctonate aldolase 2;<br><b>PDBTitle:</b> crystal structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 burkholderia pseudomallei                                                                           |
| 75 | <a href="#">d2flia1</a> | Alignment | not modelled | 96.5 | 11 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> D-ribulose-5-phosphate 3-epimerase                                                                                                                                                                  |
| 76 | <a href="#">dlvc4a</a>  | Alignment | not modelled | 96.4 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                     |
| 77 | <a href="#">c3q58A</a>  | Alignment | not modelled | 96.3 | 16 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> n-acetylmannosamine-6-phosphate 2-epimerase;<br><b>PDBTitle:</b> structure of n-acetylmannosamine-6-phosphate epimerase from salmonella2 enterica                                                                                           |
| 78 | <a href="#">c3innA</a>  | Alignment | not modelled | 96.3 | 13 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> d-ribulose-phosphate 3-epimerase;                                                                                                                                                                                                           |

|     |                         |           |              |      |    |                                                                                                                                                                                                                                                                                                                   |
|-----|-------------------------|-----------|--------------|------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 78  | <a href="#">c3mpA</a>   | Alignment | not modelled | 96.3 | 13 | <b>PDBTitle:</b> 2.05 angstrom resolution crystal structure of d-ribulose-phosphate 3-2 epimerase from francisella tularensis.<br><b>PDB header:</b> oxidoreductase                                                                                                                                               |
| 79  | <a href="#">c2h9aB</a>  | Alignment | not modelled | 96.2 | 12 | <b>Chain:</b> B: <b>PDB Molecule:</b> co dehydrogenase/acetyl-coa synthase, iron-<br><b>PDBTitle:</b> corrinoid iron-sulfur protein                                                                                                                                                                               |
| 80  | <a href="#">c2vp8A</a>  | Alignment | not modelled | 96.2 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase 2;<br><b>PDBTitle:</b> structure of mycobacterium tuberculosis rv1207                                                                                                                                            |
| 81  | <a href="#">d1h5ya</a>  | Alignment | not modelled | 96.1 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Histidine biosynthesis enzymes                                                                                                                                                                      |
| 82  | <a href="#">d1gqna</a>  | Alignment | not modelled | 96.1 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                             |
| 83  | <a href="#">d1olta</a>  | Alignment | not modelled | 96.1 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> Oxygen-independent coproporphyrinogen III oxidase HemN                                                                                                                                                            |
| 84  | <a href="#">d1gvfa</a>  | Alignment | not modelled | 96.1 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class II FBP aldolase                                                                                                                                                                                                        |
| 85  | <a href="#">c2iswB</a>  | Alignment | not modelled | 96.0 | 20 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative fructose-1,6-bisphosphate aldolase;<br><b>PDBTitle:</b> structure of giardia fructose-1,6-biphosphate aldolase in2 complex with phosphoglycolohydroxamate                                                                              |
| 86  | <a href="#">c1zcoA</a>  | Alignment | not modelled | 95.9 | 10 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydro-3-deoxyphosphoheptonate aldolase;<br><b>PDBTitle:</b> crystal structure of pyrococcus furiosus 3-deoxy-d-arabino-2 heptulosonate 7-phosphate synthase                                                                                 |
| 87  | <a href="#">c3chvA</a>  | Alignment | not modelled | 95.9 | 11 | <b>PDB header:</b> metal binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> prokaryotic domain of unknown function (duf849) with a tim<br><b>PDBTitle:</b> crystal structure of a prokaryotic domain of unknown function (duf849)2 member (spoa0042) from silicibacter pomeroyi dss-3 at 1.45 a3 resolution |
| 88  | <a href="#">d1i4na</a>  | Alignment | not modelled | 95.9 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                     |
| 89  | <a href="#">c2yciX</a>  | Alignment | not modelled | 95.9 | 11 | <b>PDB header:</b> transferase<br><b>Chain:</b> X: <b>PDB Molecule:</b> 5-methyltetrahydrofolate corrinoid/iron sulfur protein<br><b>PDBTitle:</b> methyltransferase native                                                                                                                                       |
| 90  | <a href="#">c2yr1B</a>  | Alignment | not modelled | 95.8 | 15 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> crystal structure of 3-dehydroquinate dehydratase from geobacillus2 kaustophilus hta426                                                                                                       |
| 91  | <a href="#">d1n7ka</a>  | Alignment | not modelled | 95.8 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                             |
| 92  | <a href="#">c3e96B</a>  | Alignment | not modelled | 95.8 | 11 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> dihydrodipicolinate synthase;<br><b>PDBTitle:</b> crystal structure of dihydrodipicolinate synthase from2 bacillus clausii                                                                                                                      |
| 93  | <a href="#">c3pm6B</a>  | Alignment | not modelled | 95.7 | 16 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative fructose-bisphosphate aldolase;<br><b>PDBTitle:</b> crystal structure of a putative fructose-1,6-bisphosphate aldolase from2 coccidioides immitis solved by combined sad mr                                                            |
| 94  | <a href="#">c3l2iB</a>  | Alignment | not modelled | 95.7 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> 1.85 angstrom crystal structure of the 3-dehydroquinate dehydratase2 (arod) from salmonella typhimurium lt2.                                                                                  |
| 95  | <a href="#">c3ngjC</a>  | Alignment | not modelled | 95.6 | 16 | <b>PDB header:</b> lyase<br><b>Chain:</b> C: <b>PDB Molecule:</b> deoxyribose-phosphate aldolase;<br><b>PDBTitle:</b> crystal structure of a putative deoxyribose-phosphate aldolase from2 entamoeba histolytica                                                                                                  |
| 96  | <a href="#">d1vr6a1</a> | Alignment | not modelled | 95.6 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I DAHP synthetase                                                                                                                                                                                                      |
| 97  | <a href="#">c3q94B</a>  | Alignment | not modelled | 95.5 | 15 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> fructose-bisphosphate aldolase, class ii;<br><b>PDBTitle:</b> the crystal structure of fructose 1,6-bisphosphate aldolase from2 bacillus anthracis str. 'ames ancestor'                                                                         |
| 98  | <a href="#">c3qxbB</a>  | Alignment | not modelled | 95.5 | 11 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> putative xylose isomerase;<br><b>PDBTitle:</b> crystal structure of a putative xylose isomerase (yp_426450.1) from2 rhodospirillum rubrum atcc 11170 at 1.90 a resolution                                                                   |
| 99  | <a href="#">c2yw3E</a>  | Alignment | not modelled | 95.4 | 14 | <b>PDB header:</b> lyase<br><b>Chain:</b> E: <b>PDB Molecule:</b> 4-hydroxy-2-oxoglutarate aldolase/2-deydro-3-<br><b>PDBTitle:</b> crystal structure analysis of the 4-hydroxy-2-oxoglutarate aldolase/2-2 deydro-3-deoxyphosphogluconate aldolase from tthb1                                                    |
| 100 | <a href="#">d1djqa1</a> | Alignment | not modelled | 95.4 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases                                                                                                                                                                                 |
| 101 | <a href="#">c3d0cB</a>  | Alignment | not modelled | 95.4 | 10 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> dihydrodipicolinate synthase;<br><b>PDBTitle:</b> crystal structure of dihydrodipicolinate synthase from2 oceanobacillus iheyensis at 1.9 a resolution                                                                                          |
| 102 | <a href="#">c3dz1A</a>  | Alignment | not modelled | 95.4 | 13 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydrodipicolinate synthase;<br><b>PDBTitle:</b> crystal structure of dihydrodipicolinate synthase from2 rhodopseudomonas palustris at 1.87a resolution<br><b>PDB header:</b> structural genomics, unknown function                            |

|     |                         |           |              |      |    |                                                                                                                                                                                                                                                                                                               |
|-----|-------------------------|-----------|--------------|------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 103 | <a href="#">c1telA_</a> | Alignment | not modelled | 95.4 | 13 | <b>Chain:</b> A: <b>PDB Molecule:</b> ribulose biphosphate carboxylase, large subunit;<br><b>PDBTitle:</b> crystal structure of a rubisco-like protein from chlorobium2 tepidum                                                                                                                               |
| 104 | <a href="#">c2pgeA_</a> | Alignment | not modelled | 95.4 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> menc;<br><b>PDBTitle:</b> crystal structure of menc from desulfotalea psychrophila2 lsv54                                                                                                                                                   |
| 105 | <a href="#">c3elfA_</a> | Alignment | not modelled | 95.3 | 14 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> fructose-bisphosphate aldolase;<br><b>PDBTitle:</b> structural characterization of tetrameric mycobacterium tuberculosis2 fructose 1,6-bisphosphate aldolase - substrate binding and catalysis3 mechanism of a class iia bacterial aldolase |
| 106 | <a href="#">c3ct7E_</a> | Alignment | not modelled | 95.3 | 14 | <b>PDB header:</b> isomerase<br><b>Chain:</b> E: <b>PDB Molecule:</b> d-allulose-6-phosphate 3-epimerase;<br><b>PDBTitle:</b> crystal structure of d-allulose 6-phosphate 3-epimerase2 from escherichia coli k-12                                                                                             |
| 107 | <a href="#">c3qjaA_</a> | Alignment | not modelled | 95.3 | 19 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> indole-3-glycerol phosphate synthase;<br><b>PDBTitle:</b> crystal structure of the mycobacterium tuberculosis indole-3-glycerol2 phosphate synthase (trpc) in apo form                                                                      |
| 108 | <a href="#">dlyxya1</a> | Alignment | not modelled | 95.3 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phoshate binding barrel<br><b>Family:</b> NanE-like                                                                                                                                                                                        |
| 109 | <a href="#">c2qiwa_</a> | Alignment | not modelled | 95.2 | 17 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pep phosphonmutase;<br><b>PDBTitle:</b> crystal structure of a putative phosphoenolpyruvate phosphonmutase2 (ncgl1015, cgl1060) from corynebacterium glutamicum atcc 13032 at3 1.80 a resolution                                      |
| 110 | <a href="#">d1ub3a_</a> | Alignment | not modelled | 95.2 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                         |
| 111 | <a href="#">c3k13A_</a> | Alignment | not modelled | 95.1 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 5-methyltetrahydrofolate-homocysteine methyltransferase;<br><b>PDBTitle:</b> structure of the pterin-binding domain metr of 5-2 methyltetrahydrofolate-homocysteine methyltransferase from3 bacteroides thetaiotaomicron              |
| 112 | <a href="#">d2q02a1</a> | Alignment | not modelled | 95.0 | 8  | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> lolI-like                                                                                                                                                                                                   |
| 113 | <a href="#">d1k77a_</a> | Alignment | not modelled | 95.0 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> Hypothetical protein YgbM (EC1530)                                                                                                                                                                          |
| 114 | <a href="#">c3nwrA_</a> | Alignment | not modelled | 94.9 | 18 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> a rubisco-like protein;<br><b>PDBTitle:</b> crystal structure of a rubisco-like protein from burkholderia fungorum                                                                                                                          |
| 115 | <a href="#">d1a53a_</a> | Alignment | not modelled | 94.8 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phoshate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes                                                                                                                                                                  |
| 116 | <a href="#">d1o60a_</a> | Alignment | not modelled | 94.8 | 11 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I DAHP synthetase                                                                                                                                                                                                  |
| 117 | <a href="#">d1o0ya_</a> | Alignment | not modelled | 94.7 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                         |
| 118 | <a href="#">c2r8wB_</a> | Alignment | not modelled | 94.7 | 13 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> agr_c_1641p;<br><b>PDBTitle:</b> the crystal structure of dihydrodipicolinate synthase (atu0899) from2 agrobacterium tumefaciens str. c58                                                                                                   |
| 119 | <a href="#">d1tv8a_</a> | Alignment | not modelled | 94.5 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> MoCo biosynthesis proteins                                                                                                                                                                                    |
| 120 | <a href="#">d1xxxa1</a> | Alignment | not modelled | 94.4 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase                                                                                                                                                                                                         |