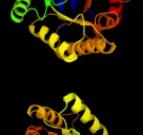
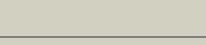


# Phyre<sup>2</sup>

|               |                                |
|---------------|--------------------------------|
| Email         | I.a.kelley@imperial.ac.uk      |
| Description   | P05194                         |
| Date          | Thu Jan 5 10:58:42 GMT<br>2012 |
| Unique Job ID | e95dc87f938e2092               |

Detailed template information

| #  | Template                | Alignment Coverage  | 3D Model  | Confidence | % i.d. | Template Information  |
|----|-------------------------|---|---|------------|--------|---|
| 1  | <a href="#">d1ggna_</a> |    |    | 100.0      | 77     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 2  | <a href="#">c3js3C_</a> |    |    | 100.0      | 53     | <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 |
| 3  | <a href="#">c2yr1B_</a> |    |    | 100.0      | 39     | <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   |
| 4  | <a href="#">c3l2iB_</a> |    |   | 100.0      | 79     | <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.                    |
| 5  | <a href="#">c2o7qA_</a> |  |  | 100.0      | 30     | <b>PDB header:</b> oxidoreductase,transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> bifunctional 3-dehydroquinate dehydratase/shikimate<br><b>PDBTitle:</b> crystal structure of the a. thaliana dhq-dehydroshikimate-sdh-2 shikimate-nadp(h)    |
| 6  | <a href="#">d1sfla_</a> |  |  | 100.0      | 30     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 7  | <a href="#">c2yswB_</a> |  |  | 100.0      | 31     | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> crystal structure of the 3-dehydroquinate dehydratase from aquifex2 aeolicus vf5  |
| 8  | <a href="#">c3l9cA_</a> |  |  | 100.0      | 33     | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> the crystal structure of smu.777 from streptococcus mutans ua159  |
| 9  | <a href="#">c2oczA_</a> |  |  | 100.0      | 28     | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> the structure of a putative 3-dehydroquinate dehydratase from2 streptococcus pyogenes.  |
| 10 | <a href="#">c2ox1C_</a> |  |  | 100.0      | 28     | <b>PDB header:</b> lyase<br><b>Chain:</b> C: <b>PDB Molecule:</b> 3-dehydroquinate dehydratase;<br><b>PDBTitle:</b> archaeal dehydroquinase   |
| 11 | <a href="#">c2v82A_</a> |  |  | 98.2       | 14     | <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   |

|    |                         |           |   |      |    |   |
|----|-------------------------|-----------|---|------|----|---|
| 12 | <a href="#">d1vhca</a>  | Alignment |     | 98.1 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 13 | <a href="#">d1wbha1</a> | Alignment |    | 98.0 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 14 | <a href="#">d1mxsa</a>  | Alignment |    | 98.0 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 15 | <a href="#">d1wa3a1</a> | Alignment |    | 97.8 | 24 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> Class I aldolase   |
| 16 | <a href="#">c3f4wA</a>  | Alignment |    | 97.7 | 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 salmonella typhimurium   |
| 17 | <a href="#">d2zdra2</a> | Alignment |   | 97.7 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> NeuB-like  |
| 18 | <a href="#">c3labA</a>  | Alignment |  | 97.6 | 17 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative kdpg (2-keto-3-deoxy-6-phosphogluconate)<br><b>PDBTitle:</b> crystal structure of a putative kdpg (2-keto-3-deoxy-6-phosphogluconate) aldolase from oleispira antarctica           |
| 19 | <a href="#">c3pg8B</a>  | Alignment |  | 97.5 | 11 | <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-heptulonate 7-phosphate synthase2 from thermotoga maritima   |
| 20 | <a href="#">c3noyA</a>  | Alignment |  | 97.5 | 23 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase;<br><b>PDBTitle:</b> crystal structure of ispg (gcpe)   |
| 21 | <a href="#">d1ajza</a>  | Alignment | not modelled  | 97.5 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase  |
| 22 | <a href="#">c3k13A</a>  | Alignment | not modelled  | 97.5 | 14 | <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 thetaiotomron |
| 23 | <a href="#">c1tx2A</a>  | Alignment | not modelled  | 97.5 | 13 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dhps, dihydropteroate synthase;<br><b>PDBTitle:</b> dihydropteroate synthetase, with bound inhibitor manic, from bacillus2 anthracis  |
| 24 | <a href="#">d1tx2a</a>  | Alignment | not modelled  | 97.5 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase  |
| 25 | <a href="#">c1xuzA</a>  | Alignment | not modelled  | 97.5 | 13 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> polysialic acid capsule biosynthesis protein sia;  |
|    |                         |           |   |      |    | <b>PDBTitle:</b> crystal structure analysis of sialic acid synthase (neub)from2 neisseria meningitidis, bound to mn2+, phosphoenolpyruvate, and n-3 acetyl mannosaminitol   |
| 26 | <a href="#">d3bofa1</a> | Alignment | not modelled  | 97.4 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Methyltetrahydrofolate-utilizing methyltransferases   |
| 27 | <a href="#">c2y5sA</a>  | Alignment | not modelled  | 97.4 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase;<br><b>PDBTitle:</b> crystal structure of burkholderia cenocepacia dihydropteroate2 synthase complexed with 7,8-dihydropteroate.   |
|    |                         |           |   |      |    | <b>PDB header:</b> transferase  |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
| 28 | <a href="#">c1rr2A</a>  | Alignment | not modelled | 97.4 | 13 | <b>Chain:</b> A: <b>PDB Molecule:</b> transcarboxylase 5s subunit; <b>PDBTitle:</b> propionibacterium shermanii transcarboxylase 5s subunit bound to 2-2 ketobutyric acid  |
| 29 | <a href="#">c3ivuB</a>  | Alignment | not modelled | 97.3 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> homocitrate synthase, mitochondrial; <b>PDBTitle:</b> homocitrate synthase lys4 bound to 2-og  |
| 30 | <a href="#">d1ad1a</a>  | Alignment | not modelled | 97.3 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase   |
| 31 | <a href="#">d1h1ya</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   |
| 32 | <a href="#">c2y0fD</a>  | Alignment | not modelled | 97.2 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase; <b>PDBTitle:</b> structure of gcpe (ispg) from thermus thermophilus hb27  |
| 33 | <a href="#">d1f6ya</a>  | Alignment | not modelled | 97.1 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Methyltetrahydrofolate-utilizing methyltransferases  |
| 34 | <a href="#">c2yw3E</a>  | Alignment | not modelled | 97.0 | 20 | <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 dehydro-3-deoxyphosphogluconate aldolase from ttb1   |
| 35 | <a href="#">c3nvta</a>  | Alignment | not modelled | 96.9 | 15 | <b>PDB header:</b> transferase/isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase; <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 |
| 36 | <a href="#">d1tqja</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> D-ribulose-5-phosphate 3-epimerase   |
| 37 | <a href="#">c2dzaA</a>  | Alignment | not modelled | 96.9 | 20 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase; <b>PDBTitle:</b> crystal structure of dihydropteroate synthase from thermus2 thermophilus hb8 in complex with 4-aminobenzoate  |
| 38 | <a href="#">c3ewbX</a>  | Alignment | not modelled | 96.8 | 17 | <b>PDB header:</b> transferase<br><b>Chain:</b> X: <b>PDB Molecule:</b> 2-isopropylmalate synthase; <b>PDBTitle:</b> crystal structure of n-terminal domain of putative 2-2 isopropylmalate synthase from listeria monocytogenes<br><b>PDB header:</b> lyase   |
| 39 | <a href="#">c2nx9B</a>  | Alignment | not modelled | 96.8 | 13 | <b>Chain:</b> B: <b>PDB Molecule:</b> oxaloacetate decarboxylase 2, subunit alpha; <b>PDBTitle:</b> crystal structure of the carboxyltransferase domain of the2 oxaloacetate decarboxylase na+ pump from vibrio cholerae   |
| 40 | <a href="#">d1xi3a</a>  | Alignment | not modelled | 96.7 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Thiamin phosphate synthase<br><b>Family:</b> Thiamin phosphate synthase  |
| 41 | <a href="#">c2yciX</a>  | Alignment | not modelled | 96.6 | 12 | <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  |
| 42 | <a href="#">c3tr9A</a>  | Alignment | not modelled | 96.6 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase; <b>PDBTitle:</b> structure of a dihydropteroate synthase (folp) in complex with pteroc2 acid from coxiella burnetii<br><b>PDB header:</b> isomerase  |
| 43 | <a href="#">c3qc3B</a>  | Alignment | not modelled | 96.6 | 16 | <b>Chain:</b> B: <b>PDB Molecule:</b> d-ribulose-5-phosphate-3-epimerase; <b>PDBTitle:</b> crystal structure of a d-ribulose-5-phosphate-3-epimerase (np_954699)2 from homo sapiens at 2.20 a resolution   |
| 44 | <a href="#">d1vyra</a>  | Alignment | not modelled | 96.6 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases  |
| 45 | <a href="#">d1pkla2</a> | Alignment | not modelled | 96.6 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Pyruvate kinase  |
| 46 | <a href="#">d1xcf</a>   | Alignment | not modelled | 96.5 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes  |
| 47 | <a href="#">c2h90A</a>  | Alignment | not modelled | 96.5 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> xenobiotic reductase a; <b>PDBTitle:</b> xenobiotic reductase a in complex with coumarin  |
| 48 | <a href="#">d1q6oa</a>  | Alignment | not modelled | 96.4 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Decarboxylase  |
| 49 | <a href="#">c3exsB</a>  | Alignment | not modelled | 96.4 | 12 | <b>PDB header:</b> lyase<br><b>Chain:</b> B: <b>PDB Molecule:</b> rmpd (hexulose-6-phosphate synthase); <b>PDBTitle:</b> crystal structure of kgpdc from streptococcus mutans in2 complex with d-r5p   |
| 50 | <a href="#">c2vp8A</a>  | Alignment | not modelled | 96.3 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dihydropteroate synthase 2; <b>PDBTitle:</b> structure of mycobacterium tuberculosis rv1207  |
| 51 | <a href="#">d1qopa</a>  | Alignment | not modelled | 96.3 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes  |
| 52 | <a href="#">c3khdc</a>  | Alignment | not modelled | 96.2 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> pyruvate kinase; <b>PDBTitle:</b> crystal structure of pff1300w.   |
| 53 | <a href="#">c3inpA</a>  | Alignment | not modelled | 96.2 | 12 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> d-ribulose-phosphate 3-epimerase; <b>PDBTitle:</b> 2.05 angstrom resolution crystal structure of d-ribulose-   |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
|    |                         |           |              |      |    | phosphate 3-2 epimerase from francisella tularensis.   |
| 54 | <a href="#">c2zq0B</a>  | Alignment | not modelled | 96.2 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> alpha-glucosidase (alpha-glucosidase sub);<br><b>PDBTitle:</b> crystal structure of sub complexed with acarbose  |
| 55 | <a href="#">c2vefB</a>  | Alignment | not modelled | 96.2 | 20 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> dihydropteroate synthase;<br><b>PDBTitle:</b> dihydropteroate synthase from streptococcus pneumoniae   |
| 56 | <a href="#">d1liua2</a> | Alignment | not modelled | 96.2 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Pyruvate kinase  |
| 57 | <a href="#">c3b0vD</a>  | Alignment | not modelled | 96.1 | 20 | <b>PDB header:</b> oxidoreductase/rna<br><b>Chain:</b> D: <b>PDB Molecule:</b> tRNA-dihydrouridine synthase;<br><b>PDBTitle:</b> tRNA-dihydrouridine synthase from thermus thermophilus in complex with 2 tRNA   |
| 58 | <a href="#">d1rpxa</a>  | Alignment | not modelled | 96.1 | 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   |
| 59 | <a href="#">c3a24A</a>  | Alignment | not modelled | 96.0 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> alpha-galactosidase;<br><b>PDBTitle:</b> crystal structure of bt1871 retaining glycosidase   |
| 60 | <a href="#">c3ct7E</a>  | Alignment | not modelled | 95.9 | 22 | <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                                      |
| 61 | <a href="#">d1dvja</a>  | Alignment | not modelled | 95.9 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Decarboxylase  |
| 62 | <a href="#">d1a3xa2</a> | Alignment | not modelled | 95.8 | 21 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Pyruvate kinase  |
| 63 | <a href="#">d1vhna</a>  | Alignment | not modelled | 95.7 | 11 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases  |
| 64 | <a href="#">d1tqxa</a>  | Alignment | not modelled | 95.7 | 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   |
| 65 | <a href="#">d2flia1</a> | Alignment | not modelled | 95.7 | 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   |
| 66 | <a href="#">d1yx1a1</a> | Alignment | not modelled | 95.7 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> KguE-like  |
| 67 | <a href="#">d1rd5a</a>  | Alignment | not modelled | 95.6 | 11 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes  |
| 68 | <a href="#">c1nvmG</a>  | Alignment | not modelled | 95.5 | 15 | <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 |
| 69 | <a href="#">d1km4a</a>  | Alignment | not modelled | 95.5 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Decarboxylase  |
| 70 | <a href="#">d2g50a2</a> | Alignment | not modelled | 95.4 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Pyruvate kinase  |
| 71 | <a href="#">d1vr6a1</a> | Alignment | not modelled | 95.3 | 10 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Alcohol dehydrogenase<br><b>Family:</b> Class I DAHP synthetase  |
| 72 | <a href="#">c1ps9A</a>  | Alignment | not modelled | 95.3 | 22 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2,4-dienoyl-coa reductase;<br><b>PDBTitle:</b> the crystal structure and reaction mechanism of e. coli 2,4-dienoyl coa reductase<br><b>PDB header:</b> lyase                |
| 73 | <a href="#">c2ekcA</a>  | Alignment | not modelled | 95.3 | 16 | <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  |
| 74 | <a href="#">c3thaB</a>  | Alignment | not modelled | 95.2 | 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.  |
| 75 | <a href="#">d1vlia2</a> | Alignment | not modelled | 95.0 | 11 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> NeuB-like   |
| 76 | <a href="#">c3hf3A</a>  | Alignment | not modelled | 95.0 | 30 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> chromate reductase;<br><b>PDBTitle:</b> old yellow enzyme from thermus scotoductus sa-01  |
| 77 | <a href="#">d1yxya1</a> | Alignment | not modelled | 94.9 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> NanE-like  |
| 78 | <a href="#">c3sz8D</a>  | Alignment | not modelled | 94.9 | 12 | <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 from burkholderia pseudomallei                 |
| 79 | <a href="#">d1gwja</a>  | Alignment | not modelled | 94.9 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases<br><b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 3-deoxy-7-phosphoheptulonate synthase;    |

|     |                         |           |              |      |    |   |
|-----|-------------------------|-----------|--------------|------|----|---|
| 80  | <a href="#">c1vs1B_</a> | Alignment | not modelled | 94.8 | 15 | <b>PDBTitle:</b> crystal structure of 3-deoxy-d-arabino-heptulosonate-7-phosphate synthase (dahp synthase) from aeropyrum pernix3 in complex with mn2+ and pep<br><b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nadph dehydrogenase;<br><b>PDBTitle:</b> structure of oye from geobacillus kaustophilus, hexagonal2 crystal form |
| 81  | <a href="#">c3gr7A_</a> | Alignment | not modelled | 94.8 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases   |
| 82  | <a href="#">d1dqg1</a>  | Alignment | not modelled | 94.8 | 23 | <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 vibrio cholerae o1 biovar el tor str. n16961   |
| 83  | <a href="#">c3jr2D_</a> | Alignment | not modelled | 94.7 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> trimethylamine dehydrogenase;<br><b>PDBTitle:</b> structural and biochemical characterization of recombinant wild type2 trimethylamine dehydrogenase from methyllophilus methylotrophus (sp.3 w3a1)  |
| 84  | <a href="#">c1djnB_</a> | Alignment | not modelled | 94.7 | 20 | <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   |
| 85  | <a href="#">c3ajxA_</a> | Alignment | not modelled | 94.6 | 17 | <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   |
| 86  | <a href="#">c2zyfA_</a> | Alignment | not modelled | 94.4 | 16 | <b>PDB header:</b> lyase<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein asbf;<br><b>PDBTitle:</b> crystal structure of the probable 3-dhs dehydratase asbf involved in2 the petrobactin synthesis from bacillus anthracis   |
| 87  | <a href="#">c3dx5A_</a> | Alignment | not modelled | 94.3 | 15 | <b>PDB header:</b> transcription<br><b>Chain:</b> D: <b>PDB Molecule:</b> regulatory protein teni;<br><b>PDBTitle:</b> structure of teni from bacillus subtilis   |
| 88  | <a href="#">c1yadD_</a> | Alignment | not modelled | 94.3 | 14 | <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  |
| 89  | <a href="#">c2ftpA_</a> | Alignment | not modelled | 94.3 | 16 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> carbon monoxide dehydrogenase corrinoid/iron-<br><b>PDBTitle:</b> corrinoid iron-sulfur protein  |
| 90  | <a href="#">c2h9aA_</a> | Alignment | not modelled | 93.8 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> RuBisCo, C-terminal domain<br><b>Family:</b> RuBisCo, large subunit, C-terminal domain  |
| 91  | <a href="#">d1geha1</a> | Alignment | not modelled | 93.8 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 5-methyltetrahydrofolate s-homocysteine<br><b>PDBTitle:</b> cobalamin-dependent methionine synthase (1-566) from2 thermotoga maritima complexed with zn2+  |
| 92  | <a href="#">d1ps9a1</a> | Alignment | not modelled | 93.8 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases   |
| 93  | <a href="#">d2d69a1</a> | Alignment | not modelled | 93.7 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> RuBisCo, C-terminal domain<br><b>Family:</b> RuBisCo, large subunit, C-terminal domain  |
| 94  | <a href="#">c3bolB_</a> | Alignment | not modelled | 93.6 | 10 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> 5-methyltetrahydrofolate s-homocysteine<br><b>PDBTitle:</b> cobalamin-dependent methionine synthase (1-566) from2 thermotoga maritima complexed with zn2+   |
| 95  | <a href="#">d1icpa_</a> | Alignment | not modelled | 93.6 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> FMN-linked oxidoreductases<br><b>Family:</b> FMN-linked oxidoreductases   |
| 96  | <a href="#">c2c3zA_</a> | Alignment | not modelled | 93.5 | 18 | <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   |
| 97  | <a href="#">c3iwpK_</a> | Alignment | not modelled | 93.2 | 15 | <b>PDB header:</b> metal binding protein<br><b>Chain:</b> K: <b>PDB Molecule:</b> copper homeostasis protein cutc homolog;<br><b>PDBTitle:</b> crystal structure of human copper homeostasis protein cutc   |
| 98  | <a href="#">d1leya_</a> | Alignment | not modelled | 93.2 | 19 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase  |
| 99  | <a href="#">c3bg5C_</a> | Alignment | not modelled | 93.1 | 13 | <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   |
| 100 | <a href="#">c3gkaB_</a> | Alignment | not modelled | 93.1 | 14 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> n-ethylmaleimide reductase;<br><b>PDBTitle:</b> crystal structure of n-ethylmaleimidine reductase from2 burkholderia pseudomallei  |
| 101 | <a href="#">c3bsmD_</a> | Alignment | not modelled | 92.4 | 9  | <b>PDB header:</b> lyase<br><b>Chain:</b> D: <b>PDB Molecule:</b> mandelate racemase/muconate lactonizing enzyme;<br><b>PDBTitle:</b> crystal structure of d-mannonate dehydratase from2 chromohalobacter salexigens  |
| 102 | <a href="#">c3kruC_</a> | Alignment | not modelled | 92.4 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> C: <b>PDB Molecule:</b> nadflavin oxidoreductase/nadh oxidase;<br><b>PDBTitle:</b> crystal structure of the thermostable old yellow enzyme from2 thermoanaerobacter pseudethanolicus e39   |
| 103 | <a href="#">c1zfjA_</a> | Alignment | not modelled | 92.3 | 21 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> inosine monophosphate dehydrogenase;<br><b>PDBTitle:</b> inosine monophosphate dehydrogenase (impdh; ec 1.1.1.205) from2 streptococcus pyogenes  |
| 104 | <a href="#">c3navB_</a> | Alignment | not modelled | 92.2 | 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 from2 vibrio cholerae o1 biovar el tor str. n16961  |

|     |                         |  |           |              |      |    |   |
|-----|-------------------------|--|-----------|--------------|------|----|---|
| 105 | <a href="#">c3nwrA</a>  |  | Alignment | not modelled | 91.7 | 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  |
| 106 | <a href="#">d1twda</a>  |  | Alignment | not modelled | 91.7 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> CutC-like<br><b>Family:</b> CutC-like   |
| 107 | <a href="#">d1s2wa</a>  |  | Alignment | not modelled | 91.6 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Phosphoenolpyruvate mutase/isocitrate lyase-like  |
| 108 | <a href="#">c3bg3B</a>  |  | Alignment | not modelled | 91.6 | 14 | <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)  |
| 109 | <a href="#">c3l5aA</a>  |  | Alignment | not modelled | 91.6 | 25 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> nadh/flavin oxidoreductase/nadh oxidase;<br><b>PDBTitle:</b> crystal structure of a probable nadh-dependent flavin oxidoreductase2 from staphylococcus aureus                                      |
| 110 | <a href="#">c3atyA</a>  |  | Alignment | not modelled | 91.5 | 12 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> prostaglandin f2a synthase;<br><b>PDBTitle:</b> crystal structure of tcoye   |
| 111 | <a href="#">d1nvma2</a> |  | Alignment | not modelled | 91.5 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> HMGL-like  |
| 112 | <a href="#">d2q02a1</a> |  | Alignment | not modelled | 91.3 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> loll-like   |
| 113 | <a href="#">d2tpsa</a>  |  | Alignment | not modelled | 91.2 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Thiamin phosphate synthase<br><b>Family:</b> Thiamin phosphate synthase   |
| 114 | <a href="#">c2oemA</a>  |  | Alignment | not modelled | 90.8 | 13 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2,3-diketo-5-methylthiopentyl-1-phosphate enolase;<br><b>PDBTitle:</b> crystal structure of a rubisco-like protein from geobacillus kaustophilus liganded with mg2+ and 2,3-diketohexane 1-phosphate    |
| 115 | <a href="#">c3igsB</a>  |  | Alignment | not modelled | 90.6 | 17 | <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  |
| 116 | <a href="#">c2bdqA</a>  |  | Alignment | not modelled | 89.8 | 12 | <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 strucral genomics target sar15. |
| 117 | <a href="#">c2gq8A</a>  |  | Alignment | not modelled | 89.7 | 20 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> oxidoreductase, fmn-binding;<br><b>PDBTitle:</b> structure of sye1, an oye homologue from s. ondeidensis, in complex2 with p-hydroxyacetophenone   |
| 118 | <a href="#">d8ruca1</a> |  | Alignment | not modelled | 89.7 | 19 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> RuBisCo, C-terminal domain<br><b>Family:</b> RuBisCo, large subunit, C-terminal domain  |
| 119 | <a href="#">c3t4cD</a>  |  | Alignment | not modelled | 89.7 | 14 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> 2-dehydro-3-deoxyphosphooctonate aldolase 1;<br><b>PDBTitle:</b> crystal structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 burkholderia ambifaria  |
| 120 | <a href="#">c3gndC</a>  |  | Alignment | not modelled | 89.6 | 9  | <b>PDB header:</b> lyase<br><b>Chain:</b> C: <b>PDB Molecule:</b> aldolase lsrf;<br><b>PDBTitle:</b> crystal structure of e. coli lsrf in complex with ribulose-5-phosphate   |