










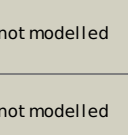


# Phyre2

|               |                             |
|---------------|-----------------------------|
| Email         | I.a.kelley@imperial.ac.uk   |
| Description   | P0AEI4                      |
| Date          | Thu Jan 5 11:23:25 GMT 2012 |
| Unique Job ID | 07cda6869b3ba6b3            |

Detailed template information

| #  | Template                | Alignment Coverage   | 3D Model  | Confidence | % i.d. | Template Information   |
|----|-------------------------|--|---|------------|--------|--|
| 1  | <a href="#">c2qgqF_</a> | <br>Alignment   |    | 100.0      | 37     | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> F; <b>PDB Molecule:</b> protein tm_1862;<br><b>PDBTitle:</b> crystal structure of tm_1862 from thermotoga maritima.2 northeast structural genomics consortium target vr77  |
| 2  | <a href="#">c3cixA_</a> | <br>Alignment   |    | 100.0      | 20     | <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  |
| 3  | <a href="#">d1olta_</a> | <br>Alignment   |    | 100.0      | 18     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> Oxygen-independent coproporphyrinogen III oxidase HemN   |
| 4  | <a href="#">c3t7vA_</a> | <br>Alignment   |   | 100.0      | 15     | <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)  |
| 5  | <a href="#">d1r30a_</a> | <br>Alignment |  | 99.9       | 18     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> Biotin synthase  |
| 6  | <a href="#">c1r30A_</a> | <br>Alignment |  | 99.9       | 18     | <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  |
| 7  | <a href="#">c3rfaA_</a> | <br>Alignment |  | 99.8       | 15     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A; <b>PDB Molecule:</b> ribosomal rna large subunit methyltransferase n;<br><b>PDBTitle:</b> x-ray structure of rlmn from escherichia coli in complex with s-2 adenosylmethionine   |
| 8  | <a href="#">d1tv8a_</a> | <br>Alignment |  | 99.7       | 15     | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Radical SAM enzymes<br><b>Family:</b> MoCo biosynthesis proteins   |
| 9  | <a href="#">c2yx0A_</a> | <br>Alignment |  | 99.7       | 15     | <b>PDB header:</b> metal binding protein<br><b>Chain:</b> A; <b>PDB Molecule:</b> radical sam enzyme;<br><b>PDBTitle:</b> crystal structure of p. horikoshii tyw1  |
| 10 | <a href="#">c3c8fA_</a> | <br>Alignment |  | 99.5       | 16     | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A; <b>PDB Molecule:</b> pyruvate formate-lyase 1-activating enzyme;<br><b>PDBTitle:</b> 4fe-4s-pyruvate formate-lyase activating enzyme with2 partially disordered adomet   |
| 11 | <a href="#">c2a5hC_</a> | <br>Alignment |  | 99.3       | 14     | <b>PDB header:</b> isomerase<br><b>Chain:</b> C; <b>PDB Molecule:</b> l-lysine 2,3-aminomutase;<br><b>PDBTitle:</b> 2.1 angstrom x-ray crystal structure of lysine-2,3-aminomutase from2 clostridium subterminale sb4, with michaelis analog (l-alpha-lysine3 external aldimine form of pyridoxal-5'-phosphate). |

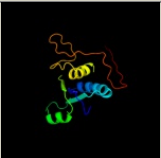
|    |                         |           |   |      |    |  |
|----|-------------------------|-----------|---|------|----|--|
| 12 | <a href="#">d7reqa2</a> | Alignment |     | 97.6 | 18 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain  |
| 13 | <a href="#">d1ccwa</a>  | Alignment |    | 97.2 | 16 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain  |
| 14 | <a href="#">c2z2uA</a>  | Alignment |    | 96.9 | 16 | <b>PDB header:</b> metal binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> upf0026 protein mj0257;<br><b>PDBTitle:</b> crystal structure of archaeal tyw1   |
| 15 | <a href="#">c1y80A</a>  | Alignment |    | 96.7 | 16 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> predicted cobalamin binding protein;<br><b>PDBTitle:</b> structure of a corrinoid (factor iim)-binding protein from2 moorella thermoacetica            |
| 16 | <a href="#">c3canA</a>  | Alignment |    | 96.6 | 14 | <b>PDB header:</b> lyase activator<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate-formate lyase-activating enzyme;<br><b>PDBTitle:</b> crystal structure of a domain of pyruvate-formate lyase-activating2 enzyme from bacteroides vulgatus atcc 8482 |
| 17 | <a href="#">c1e1cA</a>  | Alignment |   | 96.6 | 19 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methylmalonyl-coa mutase alpha chain;<br><b>PDBTitle:</b> methylmalonyl-coa mutase h244a mutant  |
| 18 | <a href="#">c2yxbA</a>  | Alignment |  | 96.5 | 14 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> coenzyme b12-dependent mutase;<br><b>PDBTitle:</b> crystal structure of the methylmalonyl-coa mutase alpha-subunit from2 aeropyrum pernix  |
| 19 | <a href="#">d3bula2</a> | Alignment |  | 96.4 | 8  | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain  |
| 20 | <a href="#">d1fmfa</a>  | Alignment |  | 96.1 | 19 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain  |
| 21 | <a href="#">c2i2xD</a>  | Alignment | not modelled  | 95.9 | 12 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> methyltransferase 1;<br><b>PDBTitle:</b> crystal structure of methanol:cobalamin methyltransferase complex2 mtbc from methanosarcina barkeri                                     |
| 22 | <a href="#">c3ivuB</a>  | Alignment | not modelled  | 95.3 | 17 | <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   |
| 23 | <a href="#">c3ezxA</a>  | Alignment | not modelled  | 94.6 | 13 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> monomethylamine corrinoid protein 1;<br><b>PDBTitle:</b> structure of methanosarcina barkeri monomethylamine2 corrinoid protein  |
| 24 | <a href="#">c3bicA</a>  | Alignment | not modelled  | 94.3 | 16 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methylmalonyl-coa mutase, mitochondrial precursor;<br><b>PDBTitle:</b> crystal structure of human methylmalonyl-coa mutase   |
| 25 | <a href="#">c1bmtB</a>  | Alignment | not modelled  | 94.0 | 8  | <b>PDB header:</b> methyltransferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> methionine synthase;<br><b>PDBTitle:</b> how a protein binds b12: a 3.0 angstrom x-ray structure of2 the b12-binding domains of methionine synthase                        |
| 26 | <a href="#">c6regB</a>  | Alignment | not modelled  | 92.7 | 10 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> protein (methylmalonyl-coa mutase);<br><b>PDBTitle:</b> methylmalonyl-coa mutase, 3-carboxypropyl-coa inhibitor complex  |
| 27 | <a href="#">d1xrsb1</a> | Alignment | not modelled  | 92.1 | 17 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain  |
| 28 | <a href="#">d1yvca1</a> | Alignment | not modelled  | 91.6 | 26 | <b>Fold:</b> OB-fold<br><b>Superfamily:</b> Nucleic acid-binding proteins<br><b>Family:</b> TRAM domain  |
|    |                         |           |   |      |    | <b>Fold:</b> OB-fold   |

|    |                         |           |              |      |    |  |
|----|-------------------------|-----------|--------------|------|----|--|
| 29 | <a href="#">dlyeza1</a> | Alignment | not modelled | 91.4 | 30 | <b>Superfamily:</b> Nucleic acid-binding proteins<br><b>Family:</b> TRAM domain  |
| 30 | <a href="#">c1xrsB</a>  | Alignment | not modelled | 91.3 | 15 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> d-lysine 5,6-aminomutase beta subunit;<br><b>PDBTitle:</b> crystal structure of lysine 5,6-aminomutase in complex with plp,2 cobalamin, and 5'-deoxyadenosine  |
| 31 | <a href="#">c2ftpA</a>  | Alignment | not modelled | 90.3 | 12 | <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   |
| 32 | <a href="#">c3npgD</a>  | Alignment | not modelled | 89.9 | 16 | <b>PDB header:</b> unknown function<br><b>Chain:</b> D: <b>PDB Molecule:</b> uncharacterized duf364 family protein;<br><b>PDBTitle:</b> crystal structure of a protein with unknown function from duf3642 family (ph1506) from pyrococcus horikoshii at 2.70 a resolution      |
| 33 | <a href="#">d1ad1a</a>  | Alignment | not modelled | 89.7 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase   |
| 34 | <a href="#">c3ewbX</a>  | Alignment | not modelled | 89.6 | 10 | <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  |
| 35 | <a href="#">c3r0jA</a>  | Alignment | not modelled | 89.5 | 17 | <b>PDB header:</b> dna binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> possible two component system response transcriptional<br><b>PDBTitle:</b> structure of phop from mycobacterium tuberculosis   |
| 36 | <a href="#">c3bleA</a>  | Alignment | not modelled | 89.3 | 12 | <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   |
| 37 | <a href="#">c2bdqA</a>  | Alignment | not modelled | 89.3 | 16 | <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 strucural genomics target sar15. |
| 38 | <a href="#">c2cw6B</a>  | Alignment | not modelled | 88.3 | 11 | <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           |
| 39 | <a href="#">d1ajza</a>  | Alignment | not modelled | 88.1 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase   |
| 40 | <a href="#">c1k98A</a>  | Alignment | not modelled | 87.7 | 10 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> methionine synthase;<br><b>PDBTitle:</b> adomet complex of meth c-terminal fragment  |
| 41 | <a href="#">d1nvma2</a> | Alignment | not modelled | 87.6 | 12 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Aldolase<br><b>Family:</b> HMGL-like   |
| 42 | <a href="#">d1ys7a2</a> | Alignment | not modelled | 87.1 | 11 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 43 | <a href="#">c1nmvG</a>  | Alignment | not modelled | 87.0 | 12 | <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                         |
| 44 | <a href="#">c3khdC</a>  | Alignment | not modelled | 86.4 | 12 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> pyruvate kinase;<br><b>PDBTitle:</b> crystal structure of pff1300w.  |
| 45 | <a href="#">d1h4pa</a>  | Alignment | not modelled | 86.2 | 14 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> (Trans)glycosidases<br><b>Family:</b> beta-glycanases  |
| 46 | <a href="#">c3eegB</a>  | Alignment | not modelled | 85.9 | 13 | <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   |
| 47 | <a href="#">d2h1qa1</a> | Alignment | not modelled | 85.9 | 17 | <b>Fold:</b> PLP-dependent transferase-like<br><b>Superfamily:</b> Dhaf3308-like<br><b>Family:</b> Dhaf3308-like   |
| 48 | <a href="#">c1ydnA</a>  | Alignment | not modelled | 85.3 | 12 | <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.  |
| 49 | <a href="#">d1mvoa</a>  | Alignment | not modelled | 84.6 | 15 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 50 | <a href="#">c2hk1D</a>  | Alignment | not modelled | 84.1 | 11 | <b>PDB header:</b> isomerase<br><b>Chain:</b> D: <b>PDB Molecule:</b> d-psicose 3-epimerase;<br><b>PDBTitle:</b> crystal structure of d-psicose 3-epimerase (dpease) in the presence of2 d-fructose  |
| 51 | <a href="#">c3hpxB</a>  | Alignment | not modelled | 83.3 | 10 | <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)                                       |
| 52 | <a href="#">d1t3ta2</a> | Alignment | not modelled | 82.0 | 15 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> Class I glutamine amidotransferases (GAT)  |
| 53 | <a href="#">d1eyea</a>  | Alignment | not modelled | 79.9 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase   |
| 54 | <a href="#">d2ix0a3</a> | Alignment | not modelled | 79.4 | 26 | <b>Fold:</b> OB-fold<br><b>Superfamily:</b> Nucleic acid-binding proteins<br><b>Family:</b> Cold shock DNA-binding domain-like   |

|    |                         |           |              |      |    |   |
|----|-------------------------|-----------|--------------|------|----|---|
| 55 | <a href="#">d7reqb2</a> | Alignment | not modelled | 78.4 | 12 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Cobalamin (vitamin B12)-binding domain<br><b>Family:</b> Cobalamin (vitamin B12)-binding domain   |
| 56 | <a href="#">d1k77a</a>  | Alignment | not modelled | 78.4 | 10 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> Hypothetical protein YgbM (EC1530)  |
| 57 | <a href="#">d1ny5a1</a> | Alignment | not modelled | 76.9 | 19 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 58 | <a href="#">c3f6cB</a>  | Alignment | not modelled | 75.4 | 11 | <b>PDB header:</b> dna binding protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> positive transcription regulator evga;<br><b>PDBTitle:</b> crystal structure of n-terminal domain of positive transcription2 regulator evga from escherichia coli                   |
| 59 | <a href="#">d1f6ya</a>  | Alignment | not modelled | 75.0 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Methyltetrahydrofolate-utilizing methyltransferases   |
| 60 | <a href="#">c3ct7E</a>  | Alignment | not modelled | 74.8 | 11 | <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="#">c3cfyA</a>  | Alignment | not modelled | 74.3 | 14 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative luxo repressor protein;<br><b>PDBTitle:</b> crystal structure of signal receiver domain of putative luxo2 repressor protein from vibrio parahaemolyticus |
| 62 | <a href="#">c3hdvB</a>  | Alignment | not modelled | 73.6 | 20 | <b>PDB header:</b> transcription regulator<br><b>Chain:</b> B: <b>PDB Molecule:</b> response regulator;<br><b>PDBTitle:</b> crystal structure of response regulator receiver protein from2 pseudomonas putida   |
| 63 | <a href="#">c2yw3E</a>  | Alignment | not modelled | 73.3 | 21 | <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 thb1       |
| 64 | <a href="#">c3cu2A</a>  | Alignment | not modelled | 72.5 | 10 | <b>PDB header:</b> isomerase<br><b>Chain:</b> A: <b>PDB Molecule:</b> ribulose-5-phosphate 3-epimerase;<br><b>PDBTitle:</b> crystal structure of ribulose-5-phosphate 3-epimerase (yp_718263.1)2 from haemophilus somnus 129pt at 1.91 a resolution                 |
| 65 | <a href="#">d1krwa</a>  | Alignment | not modelled | 72.5 | 12 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 66 | <a href="#">c3dx5A</a>  | Alignment | not modelled | 71.2 | 10 | <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                         |
| 67 | <a href="#">c3grcD</a>  | Alignment | not modelled | 70.7 | 15 | <b>PDB header:</b> transferase<br><b>Chain:</b> D: <b>PDB Molecule:</b> sensor protein, kinase;<br><b>PDBTitle:</b> crystal structure of a sensor protein from polaromonas sp.2 js666   |
| 68 | <a href="#">c3dxiB</a>  | Alignment | not modelled | 70.7 | 12 | <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                    |
| 69 | <a href="#">d1x7fa2</a> | Alignment | not modelled | 70.5 | 17 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> (Trans)glycosidases<br><b>Family:</b> Outer surface protein, N-terminal domain  |
| 70 | <a href="#">d1xima</a>  | Alignment | not modelled | 69.0 | 13 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Xylose isomerase-like<br><b>Family:</b> Xylose isomerase  |
| 71 | <a href="#">d1uwva1</a> | Alignment | not modelled | 68.4 | 17 | <b>Fold:</b> OB-fold<br><b>Superfamily:</b> Nucleic acid-binding proteins<br><b>Family:</b> TRAM domain   |
| 72 | <a href="#">c2zwmA</a>  | Alignment | not modelled | 67.3 | 15 | <b>PDB header:</b> transcription<br><b>Chain:</b> A: <b>PDB Molecule:</b> transcriptional regulatory protein yycf;<br><b>PDBTitle:</b> crystal structure of yycf receiver domain from bacillus2 subtilis  |
| 73 | <a href="#">c1x7fA</a>  | Alignment | not modelled | 67.3 | 21 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> outer surface protein;<br><b>PDBTitle:</b> crystal structure of an uncharacterized b. cereus protein  |
| 74 | <a href="#">c3lteH</a>  | Alignment | not modelled | 67.3 | 14 | <b>PDB header:</b> transcription<br><b>Chain:</b> H: <b>PDB Molecule:</b> response regulator;<br><b>PDBTitle:</b> crystal structure of response regulator (signal receiver domain) from2 bermanella marisrubri  |
| 75 | <a href="#">d1itua</a>  | Alignment | not modelled | 67.0 | 16 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Metallo-dependent hydrolases<br><b>Family:</b> Renal dipeptidase  |
| 76 | <a href="#">d1xhfa1</a> | Alignment | not modelled | 66.8 | 16 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 77 | <a href="#">d2pb1a1</a> | Alignment | not modelled | 65.6 | 20 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> (Trans)glycosidases<br><b>Family:</b> beta-glycanases   |
| 78 | <a href="#">c2zyfA</a>  | Alignment | not modelled | 65.6 | 18 | <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 magnesuium ion and alpha-ketoglutarate                        |
| 79 | <a href="#">d1w25a1</a> | Alignment | not modelled | 65.4 | 14 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 80 | <a href="#">c2jggB</a>  | Alignment | not modelled | 65.4 | 8  | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> triosephosphate isomerase;<br><b>PDBTitle:</b> kinetics and structural properties of triosephosphate2   |

|     |                         |           |              |      |    |  |
|-----|-------------------------|-----------|--------------|------|----|--|
|     |                         |           |              |      |    | isomerase from helicobacter pylori   |
| 81  | <a href="#">dlzgza1</a> | Alignment | not modelled | 64.5 | 20 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 82  | <a href="#">c2rdmB_</a> | Alignment | not modelled | 64.2 | 18 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> response regulator receiver protein;<br><b>PDBTitle:</b> crystal structure of response regulator receiver protein from2 sinorhizobium medicae wsm419                     |
| 83  | <a href="#">dlqmgaz</a> | Alignment | not modelled | 63.9 | 29 | <b>Fold:</b> NAD(P)-binding Rossmann-fold domains<br><b>Superfamily:</b> NAD(P)-binding Rossmann-fold domains<br><b>Family:</b> 6-phosphogluconate dehydrogenase-like, N-terminal domain   |
| 84  | <a href="#">dlu2za_</a> | Alignment | not modelled | 63.7 | 23 | <b>Fold:</b> S-adenosyl-L-methionine-dependent methyltransferases<br><b>Superfamily:</b> S-adenosyl-L-methionine-dependent methyltransferases<br><b>Family:</b> Catalytic, N-terminal domain of histone methyltransferase Dot1l  |
| 85  | <a href="#">dlu0sy_</a> | Alignment | not modelled | 63.6 | 10 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 86  | <a href="#">c3itcA_</a> | Alignment | not modelled | 63.3 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> renal dipeptidase;<br><b>PDBTitle:</b> crystal structure of sco3058 with bound citrate and glycerol  |
| 87  | <a href="#">c2yciX_</a> | Alignment | not modelled | 63.0 | 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  |
| 88  | <a href="#">c3dfuB_</a> | Alignment | not modelled | 62.9 | 18 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein from 6-phosphogluconate<br><b>PDBTitle:</b> crystal structure of a putative rossmann-like dehydrogenase (cgl2689)2 from corynebacterium glutamicum at 2.07 a resolution |
| 89  | <a href="#">d2a9pa1</a> | Alignment | not modelled | 62.6 | 17 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 90  | <a href="#">c3jteA_</a> | Alignment | not modelled | 62.5 | 15 | <b>PDB header:</b> protein binding<br><b>Chain:</b> A: <b>PDB Molecule:</b> response regulator receiver protein;<br><b>PDBTitle:</b> crystal structure of response regulator receiver domain2 protein from clostridium thermocellum  |
| 91  | <a href="#">d2pl1a1</a> | Alignment | not modelled | 62.4 | 14 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 92  | <a href="#">dlnw3a_</a> | Alignment | not modelled | 61.7 | 18 | <b>Fold:</b> S-adenosyl-L-methionine-dependent methyltransferases<br><b>Superfamily:</b> S-adenosyl-L-methionine-dependent methyltransferases<br><b>Family:</b> Catalytic, N-terminal domain of histone methyltransferase Dot1l  |
| 93  | <a href="#">c1nw3A_</a> | Alignment | not modelled | 61.7 | 18 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> histone methyltransferase dot1l;<br><b>PDBTitle:</b> structure of the catalytic domain of human dot1l, a non-set2 domain nucleosomal histone methyltransferase                                     |
| 94  | <a href="#">c3c24A_</a> | Alignment | not modelled | 61.4 | 19 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative oxidoreductase;<br><b>PDBTitle:</b> crystal structure of a putative oxidoreductase (yp_511008.1) from2 jannaschia sp. ccs1 at 1.62 a resolution  |
| 95  | <a href="#">dl1iua2</a> | Alignment | not modelled | 61.3 | 19 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Pyruvate kinase  |
| 96  | <a href="#">dlpeva_</a> | Alignment | not modelled | 60.9 | 15 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related   |
| 97  | <a href="#">dlka9h_</a> | Alignment | not modelled | 60.5 | 21 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> Class I glutamine amidotransferases (GAT)  |
| 98  | <a href="#">dleiwa_</a> | Alignment | not modelled | 60.4 | 20 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Hypothetical protein MTH538<br><b>Family:</b> Hypothetical protein MTH538  |
| 99  | <a href="#">dlqopa_</a> | Alignment | not modelled | 60.4 | 10 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Ribulose-phosphate binding barrel<br><b>Family:</b> Tryptophan biosynthesis enzymes  |
| 100 | <a href="#">c1zfjA_</a> | Alignment | not modelled | 60.1 | 19 | <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   |
| 101 | <a href="#">c3hn2A_</a> | Alignment | not modelled | 60.1 | 23 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> 2-dehydropantoate 2-reductase;<br><b>PDBTitle:</b> crystal structure of 2-dehydropantoate 2-reductase from geobacter2 metallireducens gs-15   |
| 102 | <a href="#">c2p10D_</a> | Alignment | not modelled | 59.2 | 20 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> ml19387 protein;<br><b>PDBTitle:</b> crystal structure of a putative phosphonopyruvate hydrolase (ml19387)2 from mesorhizobium loti maff303099 at 2.15 a resolution                                  |
| 103 | <a href="#">c3tr9A_</a> | Alignment | not modelled | 58.8 | 15 | <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 pteroi2 acid from coxiella burnetii   |
| 104 | <a href="#">dlgpma2</a> | Alignment | not modelled | 58.6 | 13 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> Class I glutamine amidotransferase-like<br><b>Family:</b> Class I glutamine amidotransferases (GAT)  |
| 105 | <a href="#">c3ktoA_</a> | Alignment | not modelled | 58.6 | 11 | <b>PDB header:</b> transcription regulator<br><b>Chain:</b> A: <b>PDB Molecule:</b> response regulator receiver protein;<br><b>PDBTitle:</b> crystal structure of response regulator receiver protein2 from pseudoalteromonas atlantica                                    |



|     |                         |           |  |      |    |   |
|-----|-------------------------|-----------|--|------|----|---|
| 106 | <a href="#">c1ydoC_</a> | Alignment | not modelled   | 57.9 | 14 | <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 bacillus subtilis hmg-coa lyase, northeast2 structural genomics target sr181.                                   |
| 107 | <a href="#">d1p2fa2</a> | Alignment | not modelled   | 57.5 | 17 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 108 | <a href="#">c2rjnA_</a> | Alignment | not modelled   | 57.0 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> response regulator receiver:metal-dependent<br><b>PDBTitle:</b> crystal structure of an uncharacterized protein q2bku2 from2 neptuniibacter caesariensis                |
| 109 | <a href="#">c2nt3A_</a> | Alignment | not modelled   | 56.5 | 12 | <b>PDB header:</b> signaling protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> response regulator homolog;<br><b>PDBTitle:</b> receiver domain from myxococcus xanthus social motility protein frzs2 (y102a mutant)                            |
| 110 | <a href="#">c2ou4C_</a> | Alignment | not modelled   | 56.4 | 12 | <b>PDB header:</b> isomerase<br><b>Chain:</b> C: <b>PDB Molecule:</b> d-tagatose 3-epimerase;<br><b>PDBTitle:</b> crystal structure of d-tagatose 3-epimerase from2 pseudomonas cichorii  |
| 111 | <a href="#">c1u5tA_</a> | Alignment | not modelled   | 56.3 | 15 | <b>PDB header:</b> transport protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> appears to be functionally related to snf7;<br><b>PDBTitle:</b> structure of the escrt-ii endosomal trafficking complex   |
| 112 | <a href="#">c3fdgA_</a> | Alignment | not modelled   | 55.9 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> dipeptidase ac. metallo peptidase. merops family m19;<br><b>PDBTitle:</b> the crystal structure of the dipeptidase ac, metallo peptidase. merops2 family m19            |
| 113 | <a href="#">d1qkka_</a> | Alignment | not modelled   | 55.6 | 16 | <b>Fold:</b> Flavodoxin-like<br><b>Superfamily:</b> CheY-like<br><b>Family:</b> CheY-related  |
| 114 | <a href="#">c3cqkB_</a> | Alignment | not modelled   | 55.4 | 11 | <b>PDB header:</b> isomerase<br><b>Chain:</b> B: <b>PDB Molecule:</b> l-ribulose-5-phosphate 3-epimerase ulae;<br><b>PDBTitle:</b> crystal structure of l-xylulose-5-phosphate 3-epimerase ulae (form b)2 complex with zn2+ and sulfate       |
| 115 | <a href="#">d1pdza1</a> | Alignment | not modelled   | 55.2 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Enolase C-terminal domain-like<br><b>Family:</b> Enolase  |
| 116 | <a href="#">c2c3yA_</a> | Alignment |  | 55.1 | 17 | <b>PDB header:</b> oxidoreductase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate-ferredoxin oxidoreductase;<br><b>PDBTitle:</b> crystal structure of the radical form of2 pyruvate:ferredoxin oxidoreductase from desulfovibrio3 africanus |
| 117 | <a href="#">d1bx2a_</a> | Alignment | not modelled   | 54.5 | 18 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Dihydropteroate synthetase-like<br><b>Family:</b> Dihydropteroate synthetase  |
| 118 | <a href="#">c1bx2A_</a> | Alignment | not modelled   | 54.5 | 18 | <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                                  |
| 119 | <a href="#">d1gvia3</a> | Alignment | not modelled   | 54.4 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> (Trans)glycosidases<br><b>Family:</b> Amylase, catalytic domain   |
| 120 | <a href="#">d1muma_</a> | Alignment | not modelled   | 53.8 | 15 | <b>Fold:</b> TIM beta/alpha-barrel<br><b>Superfamily:</b> Phosphoenolpyruvate/pyruvate domain<br><b>Family:</b> Phosphoenolpyruvate mutase/isocitrate lyase-like  |