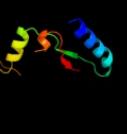
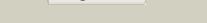
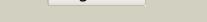
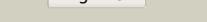
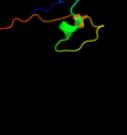
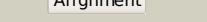
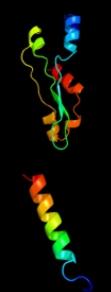
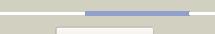
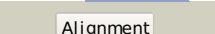
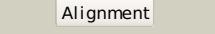
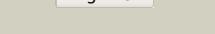
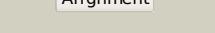


# Phyre<sup>2</sup>

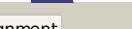
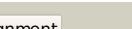
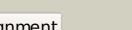
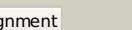
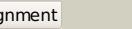
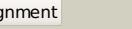
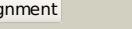
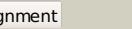
Email	I.a.kelley@imperial.ac.uk
Description	P0AB06
Date	Thu Jan 5 11:14:17 GMT 2012
Unique Job ID	cb9bc0cc529f56ee

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1lbu2	 Alignment		100.0	26	<b>Fold:</b> Hedgehog/DD-peptidase <b>Superfamily:</b> Hedgehog/DD-peptidase <b>Family:</b> Muramoyl-pentapeptide carboxypeptidase
2	c1lbuA_	 Alignment		99.9	25	<b>PDB header:</b> hydrolase <b>Chain:</b> A; <b>PDB Molecule:</b> muramoyl-pentapeptide carboxypeptidase; <b>PDBTitle:</b> hydrolase metallo (zn) dd-peptidase
3	c2vo9C_	 Alignment		98.2	21	<b>PDB header:</b> hydrolase <b>Chain:</b> C; <b>PDB Molecule:</b> l-alanyl-d-glutamate peptidase; <b>PDBTitle:</b> crystal structure of the enzymatically active domain of the2 listeria monocytogenes bacteriophage 500 endolysin ply500
4	d2vo9a1	 Alignment		98.1	25	<b>Fold:</b> Hedgehog/DD-peptidase <b>Superfamily:</b> Hedgehog/DD-peptidase <b>Family:</b> VanY-like
5	d2ibge1	 Alignment		97.2	16	<b>Fold:</b> Hedgehog/DD-peptidase <b>Superfamily:</b> Hedgehog/DD-peptidase <b>Family:</b> Hedgehog (development protein), N-terminal signaling domain
6	c3m1nB_	 Alignment		97.2	22	<b>PDB header:</b> signaling protein <b>Chain:</b> B; <b>PDB Molecule:</b> sonic hedgehog protein; <b>PDBTitle:</b> crystal structure of human sonic hedgehog n-terminal domain
7	d3d1ma1	 Alignment		97.1	20	<b>Fold:</b> Hedgehog/DD-peptidase <b>Superfamily:</b> Hedgehog/DD-peptidase <b>Family:</b> Hedgehog (development protein), N-terminal signaling domain
8	d1r44a_	 Alignment		96.0	27	<b>Fold:</b> Hedgehog/DD-peptidase <b>Superfamily:</b> Hedgehog/DD-peptidase <b>Family:</b> VanX-like
9	c2e76D_	 Alignment		59.7	17	<b>PDB header:</b> photosynthesis <b>Chain:</b> D; <b>PDB Molecule:</b> cytochrome b6-f complex iron-sulfur subunit; <b>PDBTitle:</b> crystal structure of the cytochrome b6f complex with tridecyl-2 stigmatellin (tds) from m.laminosus
10	c2f2fc_	 Alignment		53.4	23	<b>PDB header:</b> toxin <b>Chain:</b> C; <b>PDB Molecule:</b> cytolytic distending toxin c; <b>PDBTitle:</b> crystal structure of cytolytic distending toxin (cdt) from2 actinobacillus actinomycetemcomitans
11	d2f2fc1	 Alignment		53.4	23	<b>Fold:</b> beta-Trefoil <b>Superfamily:</b> Ricin B-like lectins <b>Family:</b> Ricin B-like

12	<a href="#">d1gtma2</a>			43.3	29	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
13	<a href="#">c1p84E</a>			39.2	13	<b>PDB header:</b> oxidoreductase <b>Chain:</b> E: <b>PDB Molecule:</b> ubiquinol-cytochrome c reductase iron-sulfur <b>PDBTitle:</b> hdbt inhibited yeast cytochrome bc1 complex
14	<a href="#">d1sr4c</a>			36.1	21	<b>Fold:</b> beta-Trefoil <b>Superfamily:</b> Ricin B-like lectins <b>Family:</b> Ricin B-like
15	<a href="#">c3g7kD</a>			30.3	15	<b>PDB header:</b> isomerase <b>Chain:</b> D: <b>PDB Molecule:</b> 3-methylitaconate isomerase; <b>PDBTitle:</b> crystal structure of methylitaconate-delta-isomerase
16	<a href="#">d1bvua2</a>			29.7	28	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
17	<a href="#">c2h31A</a>			29.1	9	<b>PDB header:</b> ligase, lyase <b>Chain:</b> A: <b>PDB Molecule:</b> multifunctional protein ade2; <b>PDBTitle:</b> crystal structure of human paics, a bifunctional carboxylase and2 synthetase in purine biosynthesis
18	<a href="#">c3k8zD</a>			28.0	20	<b>PDB header:</b> oxidoreductase <b>Chain:</b> D: <b>PDB Molecule:</b> nad-specific glutamate dehydrogenase; <b>PDBTitle:</b> crystal structure of gudb1 a decrypted secondary glutamate2 dehydrogenase from b. subtilis
19	<a href="#">d1am7a</a>			26.8	21	<b>Fold:</b> Lysozyme-like <b>Superfamily:</b> Lysozyme-like <b>Family:</b> Lambda lysozyme
20	<a href="#">d1euza2</a>			23.8	25	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
21	<a href="#">d1m0wa1</a>		not modelled	22.5	19	<b>Fold:</b> PreATP-grasp domain <b>Superfamily:</b> PreATP-grasp domain <b>Family:</b> Eukaryotic glutathione synthetase, substrate-binding domain
22	<a href="#">c2fynO</a>		not modelled	21.5	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> O: <b>PDB Molecule:</b> ubiquinol-cytochrome c reductase iron-sulfur <b>PDBTitle:</b> crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex
23	<a href="#">d2hgsa1</a>		not modelled	20.6	26	<b>Fold:</b> PreATP-grasp domain <b>Superfamily:</b> PreATP-grasp domain <b>Family:</b> Eukaryotic glutathione synthetase, substrate-binding domain
24	<a href="#">c2fyuE</a>		not modelled	19.5	7	<b>PDB header:</b> oxidoreductase <b>Chain:</b> E: <b>PDB Molecule:</b> ubiquinol-cytochrome c reductase iron-sulfur subunit, <b>PDBTitle:</b> crystal structure of bovine heart mitochondrial bc1 with jg1442 inhibitor
25	<a href="#">c3kalB</a>		not modelled	18.4	22	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> homoglutathione synthetase; <b>PDBTitle:</b> structure of homoglutathione synthetase from glycine max in2 closed conformation with homoglutathione, adp, a sulfate3 ion, and three magnesium ions bound
26	<a href="#">c3a7kD</a>		not modelled	14.3	11	<b>PDB header:</b> membrane protein <b>Chain:</b> D: <b>PDB Molecule:</b> halorhodopsin; <b>PDBTitle:</b> crystal structure of halorhodopsin from natronomonas2 pharaonis
27	<a href="#">c3aoeC</a>		not modelled	14.3	27	<b>PDB header:</b> oxidoreductase <b>Chain:</b> C: <b>PDB Molecule:</b> glutamate dehydrogenase; <b>PDBTitle:</b> crystal structure of hetero-hexameric glutamate dehydrogenase from2 thermus thermophilus (leu bound form)
						<b>PDB header:</b> unknown function

28	<a href="#">c2pw0A</a>	Alignment	not modelled	12.7	9	<b>Chain:</b> A: <b>PDB Molecule:</b> prpf methylaconitate isomerase; <b>PDBTitle:</b> crystal structure of trans-aconitate bound to methylaconitate2 isomerase prpf from shewanella oneidensis <b>PDB header:</b> chaperone/oxidoreductase
29	<a href="#">c2pq4B</a>	Alignment	not modelled	12.4	29	<b>Chain:</b> B: <b>PDB Molecule:</b> periplasmic nitrate reductase precursor; <b>PDBTitle:</b> nmr solution structure of napd in complex with napa1-352 signal peptide <b>PDB header:</b> ubiquitin-like protein
30	<a href="#">c2c7hA</a>	Alignment	not modelled	12.4	33	<b>Chain:</b> A: <b>PDB Molecule:</b> retinoblastoma-binding protein 6, isoform 3; <b>PDBTitle:</b> solution nmr structure of the dwnn domain from human rbbp6 <b>PDB header:</b> isomerase
31	<a href="#">c3n6jA</a>	Alignment	not modelled	11.2	10	<b>Chain:</b> A: <b>PDB Molecule:</b> mandelate racemase/muconate lactonizing protein; <b>PDBTitle:</b> crystal structure of mandelate racemase/muconate lactonizing protein2 from actinobacillus succinogenes 130z <b>PDB header:</b> structural genomics, unknown function
32	<a href="#">c3mfnD</a>	Alignment	not modelled	11.2	20	<b>Chain:</b> D: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> dfer_2879 protein of unknown function from dyadobacter fermentans
33	<a href="#">d2h9fa1</a>	Alignment	not modelled	10.0	18	<b>Fold:</b> Diaminopimelate epimerase-like <b>Superfamily:</b> Diaminopimelate epimerase-like <b>Family:</b> PA0793-like
34	<a href="#">d1b26a2</a>	Alignment	not modelled	10.0	34	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
35	<a href="#">c2hgsA</a>	Alignment	not modelled	9.9	26	<b>PDB header:</b> amine/carboxylate ligase <b>Chain:</b> A: <b>PDB Molecule:</b> protein (glutathione synthetase); <b>PDBTitle:</b> human glutathione synthetase
36	<a href="#">d2hrkb1</a>	Alignment	not modelled	9.9	47	<b>Fold:</b> GST C-terminal domain-like <b>Superfamily:</b> GST C-terminal domain-like <b>Family:</b> Arc1p N-terminal domain-like
37	<a href="#">c3bbnP</a>	Alignment	not modelled	9.7	20	<b>PDB header:</b> ribosome <b>Chain:</b> P: <b>PDB Molecule:</b> ribosomal protein s16; <b>PDBTitle:</b> homology model for the spinach chloroplast 30s subunit2 fitted to 9.4a cryo-em map of the 70s chlororibosome.
38	<a href="#">d1u02a</a>	Alignment	not modelled	9.5	21	<b>Fold:</b> HAD-like <b>Superfamily:</b> HAD-like <b>Family:</b> Trehalose-phosphatase
39	<a href="#">d2r25b1</a>	Alignment	not modelled	9.4	14	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> CheY-like <b>Family:</b> CheY-related
40	<a href="#">c1bvUf</a>	Alignment	not modelled	9.3	29	<b>PDB header:</b> oxidoreductase <b>Chain:</b> F: <b>PDB Molecule:</b> protein (glutamate dehydrogenase); <b>PDBTitle:</b> glutamate dehydrogenase from thermococcus litoralis
41	<a href="#">c1nr1A</a>	Alignment	not modelled	9.2	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> glutamate dehydrogenase 1; <b>PDBTitle:</b> crystal structure of the r463a mutant of human glutamate2 dehydrogenase
42	<a href="#">d1okga3</a>	Alignment	not modelled	8.6	44	<b>Fold:</b> FKBP-like <b>Superfamily:</b> FKBP-like <b>Family:</b> 3-mercaptopyruvate sulfurtransferase, C-terminal domain
43	<a href="#">d1qw1a1</a>	Alignment	not modelled	8.6	18	<b>Fold:</b> SH3-like barrel <b>Superfamily:</b> C-terminal domain of transcriptional repressors <b>Family:</b> FeoA-like
44	<a href="#">d1v9la2</a>	Alignment	not modelled	8.4	25	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
45	<a href="#">c1xf7A</a>	Alignment	not modelled	8.4	57	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> wilms' tumor protein; <b>PDBTitle:</b> high resolution nmr structure of the wilms' tumor2 suppressor protein (wt1) finger 3
46	<a href="#">d1xf7a</a>	Alignment	not modelled	8.4	57	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
47	<a href="#">c1m0tB</a>	Alignment	not modelled	7.7	19	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> glutathione synthetase; <b>PDBTitle:</b> yeast glutathione synthase
48	<a href="#">c3s2xB</a>	Alignment	not modelled	7.7	32	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> acetyl-coa synthase subunit alpha; <b>PDBTitle:</b> structure of acetyl-coenzyme a synthase alpha subunit c-terminal2 domain
49	<a href="#">c3hdvB</a>	Alignment	not modelled	7.0	12	<b>PDB header:</b> transcription regulator <b>Chain:</b> B: <b>PDB Molecule:</b> response regulator; <b>PDBTitle:</b> crystal structure of response regulator receiver protein from pseudomonas putida
50	<a href="#">d1bgva2</a>	Alignment	not modelled	7.0	23	<b>Fold:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Superfamily:</b> Aminoacid dehydrogenase-like, N-terminal domain <b>Family:</b> Aminoacid dehydrogenases
51	<a href="#">c2wyoC</a>	Alignment	not modelled	7.0	19	<b>PDB header:</b> ligase <b>Chain:</b> C: <b>PDB Molecule:</b> glutathione synthetase; <b>PDBTitle:</b> trypanosoma brucei glutathione synthetase
52	<a href="#">d1sp2a</a>	Alignment	not modelled	6.6	57	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
53	<a href="#">d1dz3a</a>	Alignment	not modelled	6.6	16	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> CheY-like <b>Family:</b> CheY-related
54	<a href="#">d1qcza</a>	Alignment	not modelled	6.5	19	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)

						<b>Family:</b> N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)
55	<a href="#">c2jx5A_</a>		Alignment	not modelled	6.5	35 <b>PDB header:</b> ribosomal protein <b>Chain:</b> A: <b>PDB Molecule:</b> glub(s27a); <b>PDBTitle:</b> solution structure of the ubiquitin domain n-terminal to2 the s27a ribosomal subunit of giardia lamblia
56	<a href="#">c1arfA_</a>		Alignment	not modelled	6.1	43 <b>PDB header:</b> transcription regulation <b>Chain:</b> A: <b>PDB Molecule:</b> yeast transcription factor adr1; <b>PDBTitle:</b> structures of dna-binding mutant zinc finger domains:2 implications for dna binding
57	<a href="#">d2adra1</a>		Alignment	not modelled	5.8	43 <b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
58	<a href="#">c3dcIC_</a>		Alignment	not modelled	5.8	40 <b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> C: <b>PDB Molecule:</b> tm1086; <b>PDBTitle:</b> crystal structure of tm1086
59	<a href="#">d1x6ha2</a>		Alignment	not modelled	5.7	57 <b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
60	<a href="#">c1areA_</a>		Alignment	not modelled	5.7	43 <b>PDB header:</b> transcription regulation <b>Chain:</b> A: <b>PDB Molecule:</b> yeast transcription factor adr1; <b>PDBTitle:</b> structures of dna-binding mutant zinc finger domains:2 implications for dna binding
61	<a href="#">d1ynja1</a>		Alignment	not modelled	5.5	7 <b>Fold:</b> DCoH-like <b>Superfamily:</b> RBP11-like subunits of RNA polymerase <b>Family:</b> RNA polymerase alpha subunit dimerisation domain
62	<a href="#">c3rggD_</a>		Alignment	not modelled	5.3	13 <b>PDB header:</b> lyase <b>Chain:</b> D: <b>PDB Molecule:</b> phosphoribosylaminoimidazole carboxylase, pure protein; <b>PDBTitle:</b> crystal structure of treponema denticola pure bound to air
63	<a href="#">c3thaB_</a>		Alignment	not modelled	5.3	13 <b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> tryptophan synthase alpha chain; <b>PDBTitle:</b> tryptophan synthase subunit alpha from campylobacter jejuni.
64	<a href="#">c3Ik2B_</a>		Alignment	not modelled	5.3	44 <b>PDB header:</b> protein binding <b>Chain:</b> B: <b>PDB Molecule:</b> f-actin-capping protein subunit beta isoforms 1 and 2; <b>PDBTitle:</b> crystal structure of capz bound to the uncapping motif from carmil
65	<a href="#">c2g9mB_</a>		Alignment	not modelled	5.1	11 <b>PDB header:</b> electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> phycoerythrin; <b>PDBTitle:</b> crystal structure of the pigment protein phycoerythrin from2 cyanobacterium at 2.6a resolution