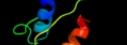
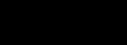


# Phyre<sup>2</sup>

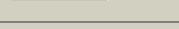
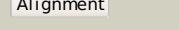
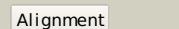
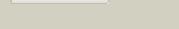
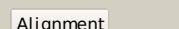
Email	i.a.kelley@imperial.ac.uk
Description	P42615
Date	Thu Jan 5 12:01:49 GMT 2012
Unique Job ID	985276605896ab17

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c1yj7A_</a>			58.8	12	<b>PDB header:</b> protein transport <b>Chain:</b> A; <b>PDB Molecule:</b> escj; <b>PDBTitle:</b> crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
2	<a href="#">c3agoD_</a>			53.8	10	<b>PDB header:</b> membrane protein <b>Chain:</b> D; <b>PDB Molecule:</b> probable secdf protein-export membrane protein; <b>PDBTitle:</b> structure and function of a membrane component secdf that enhances2 protein export
3	<a href="#">d1t1ea2</a>			41.1	21	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Protease propeptides/inhibitors <b>Family:</b> Subtilase propeptides/inhibitors
4	<a href="#">c2y9jt_</a>			40.6	21	<b>PDB header:</b> protein transport <b>Chain:</b> T; <b>PDB Molecule:</b> protein prgh; <b>PDBTitle:</b> three-dimensional model of salmonella's needle complex at2 subnanometer resolution
5	<a href="#">c3mahA_</a>			36.9	10	<b>PDB header:</b> transferase <b>Chain:</b> A; <b>PDB Molecule:</b> aspartokinase; <b>PDBTitle:</b> a putative c-terminal regulatory domain of aspartate kinase from2 porphyromonas gingivalis w83.
6	<a href="#">d2f06a1</a>			31.6	20	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> ACT-like <b>Family:</b> BT0572-like
7	<a href="#">c2re1A_</a>			31.0	14	<b>PDB header:</b> transferase <b>Chain:</b> A; <b>PDB Molecule:</b> aspartokinase, alpha and beta subunits; <b>PDBTitle:</b> crystal structure of aspartokinase alpha and beta subunits
8	<a href="#">c2os2A_</a>			30.0	27	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A; <b>PDB Molecule:</b> jmjc domain-containing histone demethylation protein 3a; <b>PDBTitle:</b> crystal structure of jmjcd2a complexed with histone h3 peptide2 trimethylated at lys36
9	<a href="#">c2w2iC_</a>			27.9	25	<b>PDB header:</b> oxidoreductase <b>Chain:</b> C; <b>PDB Molecule:</b> 2-oxoglutarate oxygenase; <b>PDBTitle:</b> crystal structure of the human 2-oxoglutarate oxygenase2 loc390245
10	<a href="#">d2j0wa2</a>			27.0	18	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> ACT-like <b>Family:</b> Aspartokinase allosteric domain-like
11	<a href="#">c1zswA_</a>			26.6	5	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A; <b>PDB Molecule:</b> glyoxalase family protein; <b>PDBTitle:</b> crystal structure of bacillus cereus metallo protein from glyoxalase2 family

12	<a href="#">c2dnrA</a>	Alignment		26.0	13	<b>PDB header:</b> rna binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> synaptotjanin-1; <b>PDBTitle:</b> solution structure of rna binding domain in synaptotjanin 1
13	<a href="#">c3ftbA</a>	Alignment		25.1	8	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> histidinol-phosphate aminotransferase; <b>PDBTitle:</b> the crystal structure of the histidinol-phosphate2 aminotransferase from clostridium acetobutylicum
14	<a href="#">c2rrnA</a>	Alignment		24.0	16	<b>PDB header:</b> protein transport <b>Chain:</b> A: <b>PDB Molecule:</b> probable secdf protein-export membrane protein; <b>PDBTitle:</b> solution structure of secdf periplasmic domain p4
15	<a href="#">d2cdqa2</a>	Alignment		23.1	16	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> ACT-like <b>Family:</b> Aspartokinase allosteric domain-like
16	<a href="#">c2q8eB</a>	Alignment		22.6	27	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> jmj domain-containing histone demethylation <b>PDBTitle:</b> specificity and mechanism of jmjd2a, a trimethyllysine-2 specific histone demethylase
17	<a href="#">c2k42B</a>	Alignment		22.3	38	<b>PDB header:</b> signaling protein <b>Chain:</b> B: <b>PDB Molecule:</b> espfu; <b>PDBTitle:</b> solution structure of the gtpase binding domain of wasp in2 complex with espfu, an ehec effector
18	<a href="#">c2zhoB</a>	Alignment		21.6	17	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> aspartokinase; <b>PDBTitle:</b> crystal structure of the regulatory subunit of aspartate2 kinase from thermus thermophilus (ligand free form)
19	<a href="#">c2wbrA</a>	Alignment		20.1	18	<b>PDB header:</b> dna-binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> gw182; <b>PDBTitle:</b> the rrm domain in gw182 proteins contributes to mirna-2 mediated gene silencing
20	<a href="#">d1vbka2</a>	Alignment		18.6	24	<b>Fold:</b> THUMP domain <b>Superfamily:</b> THUMP domain-like <b>Family:</b> THUMP domain
21	<a href="#">c3ktbD</a>	Alignment	not modelled	18.3	21	<b>PDB header:</b> transcription regulator <b>Chain:</b> D: <b>PDB Molecule:</b> arsenical resistance operon trans-acting repressor; <b>PDBTitle:</b> crystal structure of arsenical resistance operon trans-acting2 repressor from bacteroides vulgatus atcc 8482
22	<a href="#">c3eucB</a>	Alignment	not modelled	17.8	18	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> histidinol-phosphate aminotransferase 2; <b>PDBTitle:</b> crystal structure of histidinol-phosphate aminotransferase2 (yp_297314.1) from ralstonia eutropha jmp134 at 2.05 a resolution
23	<a href="#">c2f06B</a>	Alignment	not modelled	16.6	14	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> conserved hypothetical protein; <b>PDBTitle:</b> crystal structure of protein bt0572 from bacteroides thetaiotaomicron
24	<a href="#">d1uv7a</a>	Alignment	not modelled	16.1	10	<b>Fold:</b> RRF/rRNA synthetase additional domain-like <b>Superfamily:</b> General secretion pathway protein M, EpsM <b>Family:</b> General secretion pathway protein M, EpsM
25	<a href="#">cluv7A</a>	Alignment	not modelled	16.1	10	<b>PDB header:</b> transport <b>Chain:</b> A: <b>PDB Molecule:</b> general secretion pathway protein m; <b>PDBTitle:</b> periplasmic domain of epsm from vibrio cholerae
26	<a href="#">c3ffhA</a>	Alignment	not modelled	15.9	21	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> histidinol-phosphate aminotransferase; <b>PDBTitle:</b> the crystal structure of histidinol-phosphate aminotransferase from2 listeria innocua clip11262.
27	<a href="#">d2i8ga1</a>	Alignment	not modelled	15.7	15	<b>Fold:</b> Mog1p/PsbP-like <b>Superfamily:</b> Mog1p/PsbP-like <b>Family:</b> DIP2269-like
28	<a href="#">c3kgkA</a>	Alignment	not modelled	15.1	10	<b>PDB header:</b> chaperone <b>Chain:</b> A: <b>PDB Molecule:</b> arsenical resistance operon trans-acting repressor arsd;

					<b>PDBTitle:</b> crystal structure of arsd
29	<a href="#">d1gtda</a>	Alignment	not modelled	14.6	<b>Fold:</b> PurS-like <b>Superfamily:</b> PurS-like <b>Family:</b> PurS subunit of FGAM synthetase
30	<a href="#">c2kyzA</a>	Alignment	not modelled	13.8	<b>PDB header:</b> metal binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> heavy metal binding protein; <b>PDBTitle:</b> nmr structure of heavy metal binding protein tm0320 from thermotoga2 maritima
31	<a href="#">c2yx5A</a>	Alignment	not modelled	13.7	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> upf0062 protein mj1593; <b>PDBTitle:</b> crystal structure of methanococcus jannaschii purs, one of the2 subunits of formylglycinamide ribonucleotide amidotransferase in the3 purine biosynthetic pathway
32	<a href="#">d2f06a2</a>	Alignment	not modelled	12.1	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> ACT-like <b>Family:</b> BT0572-like
33	<a href="#">d1vkpa</a>	Alignment	not modelled	11.7	<b>Fold:</b> Pentein, beta/alpha-propeller <b>Superfamily:</b> Pentein <b>Family:</b> Porphyromonas-type peptidylarginine deiminase
34	<a href="#">d1b5pa</a>	Alignment	not modelled	11.0	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> AAT-like
35	<a href="#">c1tleA</a>	Alignment	not modelled	10.9	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> kumamolisin; <b>PDBTitle:</b> high resolution crystal structure of the intact pro-2 kumamolisin, a sedolisin type proteinase (previously3 called kumamolisin or kscp)
36	<a href="#">c3edyA</a>	Alignment	not modelled	10.0	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> tripeptidyl-peptidase 1; <b>PDBTitle:</b> crystal structure of the precursor form of human tripeptidyl-peptidase2 1
37	<a href="#">c3ffrA</a>	Alignment	not modelled	9.9	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphoserine aminotransferase serc; <b>PDBTitle:</b> crystal structure of a phosphoserine aminotransferase serc (chu_09952) from cytophaga hutchinsonii atcc 33406 at 1.75 a resolution
38	<a href="#">c1vbkA</a>	Alignment	not modelled	9.4	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein ph1313; <b>PDBTitle:</b> crystal structure of ph1313 from pyrococcus horikoshii ot3
39	<a href="#">d1zswa2</a>	Alignment	not modelled	9.2	<b>Fold:</b> Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase <b>Superfamily:</b> Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase <b>Family:</b> BC1024-like
40	<a href="#">c3getA</a>	Alignment	not modelled	9.1	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> histidinol-phosphate aminotransferase; <b>PDBTitle:</b> crystal structure of putative histidinol-phosphate aminotransferase2 (np_281508.1) from campylobacter jejuni at 2.01 a resolution
41	<a href="#">d1t4aa</a>	Alignment	not modelled	8.6	<b>Fold:</b> PurS-like <b>Superfamily:</b> PurS-like <b>Family:</b> PurS subunit of FGAM synthetase
42	<a href="#">d2zkmx4</a>	Alignment	not modelled	8.6	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> PLC-like phosphodiesterases <b>Family:</b> Mammalian PLC
43	<a href="#">c3p1tb</a>	Alignment	not modelled	7.7	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> putative histidinol-phosphate aminotransferase; <b>PDBTitle:</b> crystal structure of a putative aminotransferase (bpsl1724) from2 burkholderia pseudomallei k96243 at 2.60 a resolution
44	<a href="#">c2qqzB</a>	Alignment	not modelled	7.6	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> glyoxalase family protein, putative; <b>PDBTitle:</b> crystal structure of putative glyoxalase family protein from bacillus2 anthracis
45	<a href="#">c3cnrA</a>	Alignment	not modelled	7.5	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> type iv fimbriae assembly protein; <b>PDBTitle:</b> crystal structure of pilz (xac1133) from xanthomonas2 axonopodis pv citri
46	<a href="#">c2dgbA</a>	Alignment	not modelled	7.3	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein purs; <b>PDBTitle:</b> structure of thermus thermophilus purs in the p21 form
47	<a href="#">d2cmua1</a>	Alignment	not modelled	6.9	<b>Fold:</b> Pentein, beta/alpha-propeller <b>Superfamily:</b> Pentein <b>Family:</b> Porphyromonas-type peptidylarginine deiminase
48	<a href="#">d1qasa3</a>	Alignment	not modelled	6.8	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> PLC-like phosphodiesterases <b>Family:</b> Mammalian PLC
49	<a href="#">d2hmfa3</a>	Alignment	not modelled	6.8	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> ACT-like <b>Family:</b> Aspartokinase allosteric domain-like
50	<a href="#">c3c0uA</a>	Alignment	not modelled	6.8	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein yaeq; <b>PDBTitle:</b> crystal structure of e.coli yaeq protein
51	<a href="#">c3h96B</a>	Alignment	not modelled	6.7	<b>PDB header:</b> flavoprotein <b>Chain:</b> B: <b>PDB Molecule:</b> f420-h2 dependent reductase a; <b>PDBTitle:</b> msmeg_3358 f420 reductase
52	<a href="#">c2zw2B</a>	Alignment	not modelled	6.6	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> putative uncharacterized protein sts178; <b>PDBTitle:</b> crystal structure of formylglycinamide ribonucleotide amidotransferase2 iii from sulfolobus tokodaii (stpus)
53	<a href="#">c1oy8A</a>	Alignment	not modelled	6.5	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> acriflavine resistance protein b; <b>PDBTitle:</b> structural basis of multiple drug binding capacity of the

						acrb2 multidrug efflux pump	
54	<a href="#">d2ot9a1</a>		Alignment	not modelled	6.4	40	<b>Fold:</b> Restriction endonuclease-like <b>Superfamily:</b> Restriction endonuclease-like <b>Family:</b> YaeQ-like
55	<a href="#">d1vhqa_</a>		Alignment	not modelled	6.4	10	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Class I glutamine amidotransferase-like <b>Family:</b> Dj-1/Pfpl
56	<a href="#">d2g3wa1</a>		Alignment	not modelled	6.3	40	<b>Fold:</b> Restriction endonuclease-like <b>Superfamily:</b> Restriction endonuclease-like <b>Family:</b> YaeQ-like
57	<a href="#">d1vq3a_</a>		Alignment	not modelled	6.2	10	<b>Fold:</b> PurS-like <b>Superfamily:</b> PurS-like <b>Family:</b> PurS subunit of FGAM synthetase
58	<a href="#">c3oajA_</a>		Alignment	not modelled	6.2	15	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> putative ring-cleaving dioxygenase mhqo; <b>PDBTitle:</b> crystal structure of putative dioxygenase from bacillus subtilis2 subsp. subtilis str. 168
59	<a href="#">c3fwzA_</a>		Alignment	not modelled	5.9	23	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> inner membrane protein ybal; <b>PDBTitle:</b> crystal structure of trka-n domain of inner membrane protein ybal from2 escherichia coli
60	<a href="#">d2op5a1</a>		Alignment	not modelled	5.7	16	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Dimeric alpha+beta barrel <b>Family:</b> Marine metagenome family DABB1
61	<a href="#">c3ly1C_</a>		Alignment	not modelled	5.6	12	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> putative histidinol-phosphate aminotransferase; <b>PDBTitle:</b> crystal structure of putative histidinol-phosphate aminotransferase2 (yp_050345.1) from erwinia carotovora atroseptica scri1043 at1.80 a3 resolution
62	<a href="#">d1iuga_</a>		Alignment	not modelled	5.6	4	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> Cystathionine synthase-like
63	<a href="#">d1o4sa_</a>		Alignment	not modelled	5.6	15	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> AAT-like