


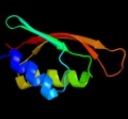
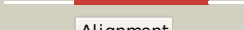

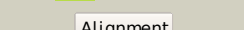


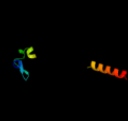




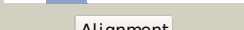

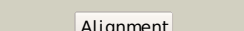

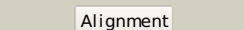


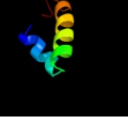











# Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	Q46832
Date	Thu Jan 5 12:34:56 GMT 2012
Unique Job ID	a224e1869e4134d5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c1uv7A_</a>	 Alignment		99.9	36	<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
2	<a href="#">d1uv7a_</a>	 Alignment		99.9	36	<b>Fold:</b> RRF/tRNA synthetase additional domain-like <b>Superfamily:</b> General secretion pathway protein M, EpsM <b>Family:</b> General secretion pathway protein M, EpsM
3	<a href="#">c2rjzA_</a>	 Alignment		97.7	10	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> pilo protein; <b>PDBTitle:</b> crystal structure of the type 4 fimbrial biogenesis protein pilo from2 pseudomonas aeruginosa
4	<a href="#">c2rddB_</a>	 Alignment		60.1	23	<b>PDB header:</b> membrane protein/transport protein <b>Chain:</b> B: <b>PDB Molecule:</b> upf0092 membrane protein yajc; <b>PDBTitle:</b> x-ray crystal structure of acrb in complex with a novel2 transmembrane helix.
5	<a href="#">d1v54d_</a>	 Alignment		53.7	24	<b>Fold:</b> Single transmembrane helix <b>Superfamily:</b> Mitochondrial cytochrome c oxidase subunit IV <b>Family:</b> Mitochondrial cytochrome c oxidase subunit IV
6	<a href="#">c2y69O_</a>	 Alignment		49.0	24	<b>PDB header:</b> electron transport <b>Chain:</b> Q: <b>PDB Molecule:</b> cytochrome c oxidase subunit 4 isoform 1; <b>PDBTitle:</b> bovine heart cytochrome c oxidase re-refined with molecular2 oxygen
7	<a href="#">d1yioa1</a>	 Alignment		44.6	21	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> C-terminal effector domain of the bipartite response regulators <b>Family:</b> GerE-like (LuxR/UhpA family of transcriptional regulators)
8	<a href="#">d1ppic2</a>	 Alignment		24.0	3	<b>Fold:</b> Heme-binding four-helical bundle <b>Superfamily:</b> Transmembrane di-heme cytochromes <b>Family:</b> Cytochrome b of cytochrome bc1 complex (Ubiquinol-cytochrome c reductase)
9	<a href="#">d1t9ma_</a>	 Alignment		23.4	9	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
10	<a href="#">c2y9kG_</a>	 Alignment		20.3	15	<b>PDB header:</b> protein transport <b>Chain:</b> G: <b>PDB Molecule:</b> protein invg; <b>PDBTitle:</b> three-dimensional model of salmonella's needle complex at2 subnanometer resolution
11	<a href="#">d1gt0d_</a>	 Alignment		19.2	22	<b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box

12	<a href="#">dlbjna_</a>	Alignment		18.9	6	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> GABA-aminotransferase-like
13	<a href="#">dlx4pa1</a>	Alignment		18.3	36	<b>Fold:</b> Surp module (SWAP domain) <b>Superfamily:</b> Surp module (SWAP domain) <b>Family:</b> Surp module (SWAP domain)
14	<a href="#">dlulra_</a>	Alignment		17.4	17	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Acylphosphatase/BLUF domain-like <b>Family:</b> Acylphosphatase-like
15	<a href="#">dlk99a_</a>	Alignment		17.0	13	<b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
16	<a href="#">c2co9A_</a>	Alignment		16.6	13	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> thymus high mobility group box protein tox; <b>PDBTitle:</b> solution structure of the hmg_box domain of thymus high2 mobility group box protein tox from mouse
17	<a href="#">dlty9a_</a>	Alignment		16.1	11	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
18	<a href="#">dlbccc3</a>	Alignment		15.0	6	<b>Fold:</b> Heme-binding four-helical bundle <b>Superfamily:</b> Transmembrane di-heme cytochromes <b>Family:</b> Cytochrome b of cytochrome bc1 complex (Ubiquinol-cytochrome c reductase)
19	<a href="#">c2jsxA_</a>	Alignment		14.0	7	<b>PDB header:</b> chaperone <b>Chain:</b> A: <b>PDB Molecule:</b> protein napd; <b>PDBTitle:</b> solution structure of the e. coli tat proofreading2 chaperone protein napd
20	<a href="#">c2yulA_</a>	Alignment		13.3	19	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> transcription factor sox-17; <b>PDBTitle:</b> solution structure of the hmg box of human transcription2 factor sox-17
21	<a href="#">c2eefA_</a>	Alignment	not modelled	12.2	24	<b>PDB header:</b> sugar binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein phosphatase 1, regulatory (inhibitor) <b>PDBTitle:</b> solution structure of the cbm_21 domain from human protein2 phosphatase 1, regulatory (inhibitor) subunit 3b
22	<a href="#">dlhywa_</a>	Alignment	not modelled	11.4	16	<b>Fold:</b> gpW/XkdW-like <b>Superfamily:</b> Head-to-tail joining protein W, gpW <b>Family:</b> Head-to-tail joining protein W, gpW
23	<a href="#">c2rnjA_</a>	Alignment	not modelled	11.3	25	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> response regulator protein vvar; <b>PDBTitle:</b> nmr structure of the s. aureus vvar dna binding domain
24	<a href="#">c2cs1A_</a>	Alignment	not modelled	11.2	19	<b>PDB header:</b> dna binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> pms1 protein homolog 1; <b>PDBTitle:</b> solution structure of the hmg domain of human dna mismatch2 repair protein
25	<a href="#">c3cwbC_</a>	Alignment	not modelled	11.1	6	<b>PDB header:</b> oxidoreductase <b>Chain:</b> C: <b>PDB Molecule:</b> cytochrome b; <b>PDBTitle:</b> chicken cytochrome bc1 complex inhibited by an iodinated analogue of2 the polyketide crocacin-d
26	<a href="#">c2kncA_</a>	Alignment	not modelled	11.1	10	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> integrin alpha-iiib; <b>PDBTitle:</b> platelet integrin alfa-iib-beta3 transmembrane-cytoplasmic2 heterocomplex
27	<a href="#">c3mn7S_</a>	Alignment	not modelled	10.7	50	<b>PDB header:</b> contractile protein/protein binding <b>Chain:</b> S: <b>PDB Molecule:</b> spire ddd; <b>PDBTitle:</b> structures of actin-bound wh2 domains of spire and the implication for2 filament nucleation
28	<a href="#">c3mn5S_</a>	Alignment	not modelled	10.4	50	<b>PDB header:</b> contractile protein/protein binding <b>Chain:</b> S: <b>PDB Molecule:</b> protein spire; <b>PDBTitle:</b> structures of actin-bound wh2 domains of spire and the implication for2 filament nucleation

29	<a href="#">dlwgfa_</a>	Alignment	not modelled	10.3	22	<b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
30	<a href="#">clx3uA_</a>	Alignment	not modelled	10.2	35	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> transcriptional regulatory protein fixj; <b>PDBTitle:</b> solution structure of the c-terminal transcriptional2 activator domain of fixj from sinorhizobium melilot
31	<a href="#">c3gr5A_</a>	Alignment	not modelled	10.1	15	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> escsc; <b>PDBTitle:</b> periplasmic domain of the outer membrane secretin escsc from2 enteropathogenic e.coli (epec)
32	<a href="#">c2k4yA_</a>	Alignment	not modelled	9.9	6	<b>PDB header:</b> metal transport <b>Chain:</b> A: <b>PDB Molecule:</b> feoA-like protein; <b>PDBTitle:</b> nmr structure of feoA-like protein from clostridium2 acetobutylicum: northeast structural genomics consortium3 target car178
33	<a href="#">clwz6A_</a>	Alignment	not modelled	9.8	31	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> hmg-box transcription factor bbx; <b>PDBTitle:</b> solution structure of the hmg_box domain of murine bobby2 sox homolog
34	<a href="#">dlw2ia_</a>	Alignment	not modelled	9.8	13	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Acylphosphatase/BLUF domain-like <b>Family:</b> Acylphosphatase-like
35	<a href="#">dlb7yb4</a>	Alignment	not modelled	9.8	13	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Anticodon-binding domain of PheRS <b>Family:</b> Anticodon-binding domain of PheRS
36	<a href="#">d2c0ra1</a>	Alignment	not modelled	9.0	6	<b>Fold:</b> PLP-dependent transferase-like <b>Superfamily:</b> PLP-dependent transferases <b>Family:</b> GABA-aminotransferase-like
37	<a href="#">c2w7vB_</a>	Alignment	not modelled	7.7	13	<b>PDB header:</b> transport protein <b>Chain:</b> B: <b>PDB Molecule:</b> general secretion pathway protein I; <b>PDBTitle:</b> periplasmic domain of epsI from vibrio parahaemolyticus
38	<a href="#">clpeiA_</a>	Alignment	not modelled	7.7	36	<b>PDB header:</b> nucleotidyltransferase <b>Chain:</b> A: <b>PDB Molecule:</b> pepc22; <b>PDBTitle:</b> nmr structure of the membrane-binding domain of ctp2 phosphocholine cytidyltransferase, 10 structures
39	<a href="#">dlj46a_</a>	Alignment	not modelled	7.7	24	<b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
40	<a href="#">c3br8A_</a>	Alignment	not modelled	7.5	14	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> probable acylphosphatase; <b>PDBTitle:</b> crystal structure of acylphosphatase from bacillus subtilis
41	<a href="#">d2af7a1</a>	Alignment	not modelled	7.5	13	<b>Fold:</b> AhpD-like <b>Superfamily:</b> AhpD-like <b>Family:</b> CMD-like
42	<a href="#">dlj3da_</a>	Alignment	not modelled	7.4	16	<b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
43	<a href="#">dl1l3la1</a>	Alignment	not modelled	7.2	27	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> C-terminal effector domain of the bipartite response regulators <b>Family:</b> GerE-like (LuxR/UhpA family of transcriptional regulators)
44	<a href="#">c2lhja_</a>	Alignment	not modelled	7.0	13	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> high mobility group protein homolog nhp1; <b>PDBTitle:</b> nmr structure of the high mobility group protein-like protein nhp12 from babesia bovis t2bo (baboa.00841.a)
45	<a href="#">c2xlkB_</a>	Alignment	not modelled	6.8	24	<b>PDB header:</b> hydrolase/rna <b>Chain:</b> B: <b>PDB Molecule:</b> csy4 endoribonuclease; <b>PDBTitle:</b> crystal structure of the csy4-crrna complex, orthorhombic form
46	<a href="#">c2gv1A_</a>	Alignment	not modelled	6.7	11	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> probable acylphosphatase; <b>PDBTitle:</b> nmr solution structure of the acylphosphatase from2 eschaerichia coli
47	<a href="#">c3qm2A_</a>	Alignment	not modelled	6.6	7	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphoserine aminotransferase; <b>PDBTitle:</b> 2.25 angstrom crystal structure of phosphoserine aminotransferase2 (serc) from salmonella enterica subsp. enterica serovar typhimurium
48	<a href="#">c2bjeA_</a>	Alignment	not modelled	6.5	19	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> acylphosphatase; <b>PDBTitle:</b> acylphosphatase from sulfolobus solfataricus. monclinic p212 space group
49	<a href="#">dl dwka2</a>	Alignment	not modelled	6.5	24	<b>Fold:</b> Cyanase C-terminal domain <b>Superfamily:</b> Cyanase C-terminal domain <b>Family:</b> Cyanase C-terminal domain
50	<a href="#">c2k1aA_</a>	Alignment	not modelled	6.4	10	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> integrin alpha-iiB; <b>PDBTitle:</b> bicelle-embedded integrin alpha(iiB) transmembrane segment
51	<a href="#">c2iv1J_</a>	Alignment	not modelled	6.3	16	<b>PDB header:</b> lyase <b>Chain:</b> J: <b>PDB Molecule:</b> cyanate hydratase; <b>PDBTitle:</b> site directed mutagenesis of key residues involved in the2 catalytic mechanism of cyanase
52	<a href="#">dlj5wa_</a>	Alignment	not modelled	6.1	25	<b>Fold:</b> Class II aaRS and biotin synthetases <b>Superfamily:</b> Class II aaRS and biotin synthetases <b>Family:</b> Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
53	<a href="#">dljicb4</a>	Alignment	not modelled	6.1	13	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> Anticodon-binding domain of PheRS <b>Family:</b> Anticodon-binding domain of PheRS
54	<a href="#">c2crjA_</a>	Alignment	not modelled	6.0	24	<b>PDB header:</b> gene regulation <b>Chain:</b> A: <b>PDB Molecule:</b> swi/snf-related matrix-associated actin- <b>PDBTitle:</b> solution structure of the hmg domain of mouse hmg

					domain2 protein hmgx2
55	<a href="#">c2d88A_</a>	Alignment	not modelled	6.0	27 <b>PDB header:</b> signaling protein, protein binding <b>Chain:</b> A: <b>PDB Molecule:</b> protein mical-3; <b>PDBTitle:</b> solution structure of the ch domain from human mical-32 protein
56	<a href="#">d1hsma_</a>	Alignment	not modelled	6.0	13 <b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
57	<a href="#">c2d89A_</a>	Alignment	not modelled	5.6	23 <b>PDB header:</b> structural protein, protein binding <b>Chain:</b> A: <b>PDB Molecule:</b> ehbp1 protein; <b>PDBTitle:</b> solution structure of the ch domain from human eh domain2 binding protein 1
58	<a href="#">d2lefa_</a>	Alignment	not modelled	5.5	19 <b>Fold:</b> HMG-box <b>Superfamily:</b> HMG-box <b>Family:</b> HMG-box
59	<a href="#">d2h3ja1</a>	Alignment	not modelled	5.4	13 <b>Fold:</b> SH3-like barrel <b>Superfamily:</b> C-terminal domain of transcriptional repressors <b>Family:</b> FeoA-like
60	<a href="#">c2kncB_</a>	Alignment	not modelled	5.3	19 <b>PDB header:</b> cell adhesion <b>Chain:</b> B: <b>PDB Molecule:</b> integrin beta-3; <b>PDBTitle:</b> platelet integrin alfa iib-beta3 transmembrane-cytoplasmic2 heterocomplex
61	<a href="#">c1wylA_</a>	Alignment	not modelled	5.1	24 <b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> nedd9 interacting protein with calponin homology <b>PDBTitle:</b> solution structure of the ch domain of human nedd92 interacting protein with calponin homology and lim domains
62	<a href="#">c2e6oA_</a>	Alignment	not modelled	5.1	13 <b>PDB header:</b> transcription, cell cycle <b>Chain:</b> A: <b>PDB Molecule:</b> hmg box-containing protein 1; <b>PDBTitle:</b> solution structure of the hmg box domain from human hmg-box2 transcription factor 1