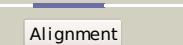
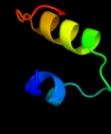
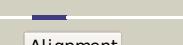


# Phyre<sup>2</sup>

Email	i.a.kelley@imperial.ac.uk
Description	P64490
Date	Thu Jan 5 12:08:53 GMT 2012
Unique Job ID	4c94169ab6b66f50

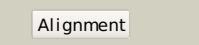
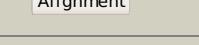
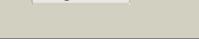
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2es9a1	Alignment		100.0	63	<b>Fold:</b> YoaC-like <b>Superfamily:</b> YoaC-like <b>Family:</b> YoaC-like
2	c2cosA_	Alignment		55.2	35	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> serine/threonine protein kinase lats2; <b>PDBTitle:</b> solution structure of rsg1 ruh-038, a uba domain from mouse2 lats2 (large tumor suppressor homolog 2)
3	d2cosa1	Alignment		43.5	45	<b>Fold:</b> RuvA C-terminal domain-like <b>Superfamily:</b> UBA-like <b>Family:</b> UBA domain
4	d1t8sa_	Alignment		33.0	35	<b>Fold:</b> Phosphorylase/hydrolase-like <b>Superfamily:</b> Purine and uridine phosphorylases <b>Family:</b> Purine and uridine phosphorylases
5	c2q62A_	Alignment		25.3	16	<b>PDB header:</b> flavoprotein <b>Chain:</b> A: <b>PDB Molecule:</b> arsh; <b>PDBTitle:</b> crystal structure of arsh from sinorhizobium meliloti
6	d1dpta_	Alignment		23.4	20	<b>Fold:</b> Tautomerase/MIF <b>Superfamily:</b> Tautomerase/MIF <b>Family:</b> MIF-related
7	d2v4ja3	Alignment		17.8	12	<b>Fold:</b> Nitrite and sulphite reductase 4Fe-4S domain-like <b>Superfamily:</b> Nitrite and sulphite reductase 4Fe-4S domain-like <b>Family:</b> Nitrite and sulphite reductase 4Fe-4S domain-like
8	d1tnsa_	Alignment		16.5	32	<b>Fold:</b> Putative DNA-binding domain <b>Superfamily:</b> Putative DNA-binding domain <b>Family:</b> Excisionase-like
9	c2o03A_	Alignment		14.8	29	<b>PDB header:</b> gene regulation <b>Chain:</b> A: <b>PDB Molecule:</b> probable zinc uptake regulation protein furb; <b>PDBTitle:</b> crystal structure of furb from m. tuberculosis- a zinc uptake2 regulator
10	c3n70F_	Alignment		14.7	26	<b>PDB header:</b> transport protein <b>Chain:</b> F: <b>PDB Molecule:</b> transport activator; <b>PDBTitle:</b> the crystal structure of the p-loop ntpase domain of the sigma-542 transport activator from e. coli to 2.8a
11	d1qpma_	Alignment		14.2	44	<b>Fold:</b> Putative DNA-binding domain <b>Superfamily:</b> Putative DNA-binding domain <b>Family:</b> Excisionase-like

12	<a href="#">d1mzba_</a>			14.1	23	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> "Winged helix" DNA-binding domain <b>Family:</b> FUR-like
13	<a href="#">d1jbob_</a>			10.4	25	<b>Fold:</b> Globin-like <b>Superfamily:</b> Globin-like <b>Family:</b> Phycocyanin-like phycobilisome proteins
14	<a href="#">d1opaa_</a>			10.1	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
15	<a href="#">d1p6pa_</a>			9.4	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
16	<a href="#">c2zv3E_</a>			9.4	28	<b>PDB header:</b> hydrolase <b>Chain:</b> E: <b>PDB Molecule:</b> peptidyl-tRNA hydrolase; <b>PDBTitle:</b> crystal structure of project mj0051 from methanocaldococcus2 jannaschii dsm 2661
17	<a href="#">c2ph5A_</a>			9.2	36	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> homospermidine synthase; <b>PDBTitle:</b> crystal structure of the homospermidine synthase hss from legionella2 pneumophila in complex with nad, northeast structural genomics target3 lgr54
18	<a href="#">c3em0A_</a>			8.9	33	<b>PDB header:</b> lipid binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> ileal bile acid-binding protein; <b>PDBTitle:</b> crystal structure of zebrafish ileal bile acid-bindin protein2 complexed with cholic acid (crystal form b).
19	<a href="#">c3civA_</a>			8.8	21	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> endo-beta-1,4-mannanase; <b>PDBTitle:</b> crystal structure of the endo-beta-1,4-mannanase from2 alicyclobacillus acidocaldarius
20	<a href="#">d2ftba1</a>			8.7	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
21	<a href="#">d1d4aa_</a>		not modelled	8.7	30	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Flavoproteins <b>Family:</b> Quinone reductase
22	<a href="#">d1kqwa_</a>		not modelled	8.6	22	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
23	<a href="#">c3ca8B_</a>		not modelled	8.6	15	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> protein ydcf; <b>PDBTitle:</b> crystal structure of escherichia coli ydcf, an s-adenosyl-l-methionine2 utilizing enzyme
24	<a href="#">d1qrda_</a>		not modelled	8.6	27	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Flavoproteins <b>Family:</b> Quinone reductase
25	<a href="#">d2fs6a1</a>		not modelled	8.4	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
26	<a href="#">c4a5qC_</a>		not modelled	8.4	20	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> chi1; <b>PDBTitle:</b> crystal structure of the chitinase chi1 fitted into the 3d structure2 of the yersinia entomophaga toxin complex
27	<a href="#">c3oa5A_</a>		not modelled	8.4	20	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> chi1; <b>PDBTitle:</b> the structure of chi1, a chitinase from yersinia entomophaga
28	<a href="#">d1ftp_</a>		not modelled	8.2	44	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
						<b>Fold:</b> Peptidyl-tRNA hydrolase II

29	<a href="#">d1rka_</a>	Alignment	not modelled	8.2	17	<b>Superfamily:</b> Peptidyl-tRNA hydrolase II <b>Family:</b> Peptidyl-tRNA hydrolase II
30	<a href="#">d2cba_</a>	Alignment	not modelled	8.1	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
31	<a href="#">c3nnkC_</a>	Alignment	not modelled	8.0	10	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> ureidoglycine-glyoxylate aminotransferase; <b>PDBTitle:</b> biochemical and structural characterization of a ureidoglycine2 aminotransferase in the klebsiella pneumoniae uric acid catabolic3 pathway
32	<a href="#">d1ggl_</a>	Alignment	not modelled	8.0	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
33	<a href="#">d1tw4a_</a>	Alignment	not modelled	7.9	44	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
34	<a href="#">d1vyfa_</a>	Alignment	not modelled	7.7	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
35	<a href="#">c2vmlD_</a>	Alignment	not modelled	7.6	20	<b>PDB header:</b> photosynthesis <b>Chain:</b> D: <b>PDB Molecule:</b> phycocyanin beta chain; <b>PDBTitle:</b> the monoclinic structure of phycocyanin from gloeobacter2 violaceus
36	<a href="#">d2fhfa5</a>	Alignment	not modelled	7.6	36	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> (Trans)glycosidases <b>Family:</b> Amylase, catalytic domain
37	<a href="#">c2lbaA_</a>	Alignment	not modelled	7.6	33	<b>PDB header:</b> lipid binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> babp protein; <b>PDBTitle:</b> solution structure of chicken ileal babp in complex with2 glycochenodeoxycholic acid
38	<a href="#">c2c4bB_</a>	Alignment	not modelled	7.6	21	<b>PDB header:</b> fusion protein <b>Chain:</b> B: <b>PDB Molecule:</b> arnase mcoeti fusion; <b>PDBTitle:</b> inhibitor cystine knot protein mcoeti fused to the2 catalytically inactive barnase mutant h102a
39	<a href="#">d2ogqa1</a>	Alignment	not modelled	7.6	55	<b>Fold:</b> Polo-box domain <b>Superfamily:</b> Polo-box domain <b>Family:</b> Polo-box duplicated region
40	<a href="#">d1fdqa_</a>	Alignment	not modelled	7.6	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
41	<a href="#">d1mdca_</a>	Alignment	not modelled	7.5	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
42	<a href="#">d1g7na_</a>	Alignment	not modelled	7.4	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
43	<a href="#">d1hma_</a>	Alignment	not modelled	7.4	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
44	<a href="#">d1olva_</a>	Alignment	not modelled	7.2	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
45	<a href="#">d1lpja_</a>	Alignment	not modelled	7.2	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
46	<a href="#">d1lfoa_</a>	Alignment	not modelled	7.1	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
47	<a href="#">d2f73a1</a>	Alignment	not modelled	7.1	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
48	<a href="#">c3efeC_</a>	Alignment	not modelled	7.0	50	<b>PDB header:</b> chaperone <b>Chain:</b> C: <b>PDB Molecule:</b> thij/pfpi family protein; <b>PDBTitle:</b> the crystal structure of the thij/pfpi family protein from bacillus2 anthracis
49	<a href="#">d1kzwa_</a>	Alignment	not modelled	7.0	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
50	<a href="#">d1pmra_</a>	Alignment	not modelled	6.9	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
51	<a href="#">c3pptA_</a>	Alignment	not modelled	6.8	44	<b>PDB header:</b> lipid binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> sodium-calcium exchanger; <b>PDBTitle:</b> rep1-nxsq fatty acid transporter
52	<a href="#">d1hfoa_</a>	Alignment	not modelled	6.8	32	<b>Fold:</b> Tautomerase/MIF <b>Superfamily:</b> Tautomerase/MIF <b>Family:</b> MIF-related
53	<a href="#">d1yival</a>	Alignment	not modelled	6.8	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
54	<a href="#">c3mwmA_</a>	Alignment	not modelled	6.7	23	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> putative metal uptake regulation protein; <b>PDBTitle:</b> graded expression of zinc-responsive genes through two regulatory2 zinc-binding sites in zur
55	<a href="#">d1cpcb_</a>	Alignment	not modelled	6.7	25	<b>Fold:</b> Globin-like <b>Superfamily:</b> Globin-like <b>Family:</b> Phycocyanin-like phycobilisome proteins

56	<a href="#">d1ifca</a>	Alignment	not modelled	6.6	22	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
57	<a href="#">c2vqpA</a>	Alignment	not modelled	6.6	75	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> matrix protein; <b>PDBTitle:</b> structure of the matrix protein from human respiratory2 syncytial virus
58	<a href="#">d1bwya</a>	Alignment	not modelled	6.5	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
59	<a href="#">d1eala</a>	Alignment	not modelled	6.5	33	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
60	<a href="#">d1eyxa</a>	Alignment	not modelled	6.5	21	<b>Fold:</b> Globin-like <b>Superfamily:</b> Globin-like <b>Family:</b> Phycocyanin-like phycobilisome proteins
61	<a href="#">d2a0aa1</a>	Alignment	not modelled	6.4	44	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
62	<a href="#">d1o8va</a>	Alignment	not modelled	6.4	44	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
63	<a href="#">d1liaa</a>	Alignment	not modelled	6.4	18	<b>Fold:</b> Globin-like <b>Superfamily:</b> Globin-like <b>Family:</b> Phycocyanin-like phycobilisome proteins
64	<a href="#">d2hnxa1</a>	Alignment	not modelled	6.3	56	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
65	<a href="#">d1crba</a>	Alignment	not modelled	6.3	44	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
66	<a href="#">d1b56a</a>	Alignment	not modelled	6.3	67	<b>Fold:</b> Lipocalins <b>Superfamily:</b> Lipocalins <b>Family:</b> Fatty acid binding protein-like
67	<a href="#">d1uyra2</a>	Alignment	not modelled	6.3	43	<b>Fold:</b> ClpP/crotonase <b>Superfamily:</b> ClpP/crotonase <b>Family:</b> Biotin dependent carboxylase carboxyltransferase domain
68	<a href="#">c2crvA</a>	Alignment	not modelled	6.3	80	<b>PDB header:</b> translation <b>Chain:</b> A: <b>PDB Molecule:</b> translation initiation factor if-2; <b>PDBTitle:</b> solution structure of c-terminal domain of mitochondrial 2 translational initiationfactor 2
69	<a href="#">c2vofA</a>	Alignment	not modelled	6.3	42	<b>PDB header:</b> apoptosis <b>Chain:</b> A: <b>PDB Molecule:</b> bcl-2-related protein a1; <b>PDBTitle:</b> structure of mouse a1 bound to the puma bh3-domain
70	<a href="#">d2gdga1</a>	Alignment	not modelled	6.1	17	<b>Fold:</b> Tautomerase/MIF <b>Superfamily:</b> Tautomerase/MIF <b>Family:</b> MIF-related
71	<a href="#">d1t0ia</a>	Alignment	not modelled	6.1	18	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Flavoproteins <b>Family:</b> NADPH-dependent FMN reductase
72	<a href="#">d2j2za2</a>	Alignment	not modelled	6.1	25	<b>Fold:</b> C2 domain-like <b>Superfamily:</b> Periplasmic chaperone C-domain <b>Family:</b> Periplasmic chaperone C-domain
73	<a href="#">c2gqsA</a>	Alignment	not modelled	6.0	24	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphoribosylaminoimidazole-succinocarboxamide <b>PDBTitle:</b> saicar synthetase complexed with cair-mg <sup>2+</sup> and adp
74	<a href="#">c3kreA</a>	Alignment	not modelled	6.0	15	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphoribosylaminoimidazole-succinocarboxamide synthase; <b>PDBTitle:</b> crystal structure of phosphoribosylaminoimidazole-succinocarboxamide2 synthase from ehrlichia chaffeensis at 1.8a resolution
75	<a href="#">c2o8kA</a>	Alignment	not modelled	5.8	55	<b>PDB header:</b> transcription/dna <b>Chain:</b> A: <b>PDB Molecule:</b> rna polymerase sigma factor rpoN; <b>PDBTitle:</b> nmr structure of the sigma-54 rpoN domain bound to the-242 promoter element
76	<a href="#">c2q9sA</a>	Alignment	not modelled	5.8	56	<b>PDB header:</b> lipid binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> fatty acid-binding protein; <b>PDBTitle:</b> linoleic acid bound to fatty acid binding protein 4
77	<a href="#">c3fwtA</a>	Alignment	not modelled	5.8	29	<b>PDB header:</b> cytokine <b>Chain:</b> A: <b>PDB Molecule:</b> macrophage migration inhibitory factor-like <b>PDBTitle:</b> crystal structure of leishmania major mif2
78	<a href="#">c2z02A</a>	Alignment	not modelled	5.7	24	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> phosphoribosylaminoimidazole-succinocarboxamide <b>PDBTitle:</b> crystal structure of 2 phosphoribosylaminoimidazoleesuccinocarboxamide synthase3 with atp from methanocaldococcus jannaschii
79	<a href="#">d2fvxa1</a>	Alignment	not modelled	5.7	14	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Flavoproteins <b>Family:</b> NADPH-dependent FMN reductase
80	<a href="#">c2xtdB</a>	Alignment	not modelled	5.5	43	<b>PDB header:</b> transcription <b>Chain:</b> B: <b>PDB Molecule:</b> tbl1 f-box-like/wd repeat-containing protein tb1x; <b>PDBTitle:</b> structure of the tb1 tetramerisation domain
81	<a href="#">c3nraA</a>	Alignment	not modelled	5.5	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> aspartate aminotransferase; <b>PDBTitle:</b> crystal structure of an aspartate aminotransferase (yp_354942.1) from rhodobacter sphaeroides 2.4.1 at 2.15 a resolution

82	<a href="#">d1gd0a</a>		Alignment	not modelled	5.4	21	<b>Fold:</b> Tautomerase/MIF <b>Superfamily:</b> Tautomerase/MIF <b>Family:</b> MIF-related
83	<a href="#">c2kuaA</a>		Alignment	not modelled	5.4	36	<b>PDB header:</b> apoptosis <b>Chain:</b> A: <b>PDB Molecule:</b> bcl-2-like protein 10; <b>PDBTitle:</b> solution structure of a divergent bcl-2 protein
84	<a href="#">c2xteH</a>		Alignment	not modelled	5.4	43	<b>PDB header:</b> transcription <b>Chain:</b> H: <b>PDB Molecule:</b> f-box-like/wd repeat-containing protein tbl1x; <b>PDBTitle:</b> structure of the tbl1 tetramerisation domain
85	<a href="#">d1o82a</a>		Alignment	not modelled	5.3	50	<b>Fold:</b> Saposin-like <b>Superfamily:</b> Bacteriocin AS-48 <b>Family:</b> Bacteriocin AS-48
86	<a href="#">c2fu4B</a>		Alignment	not modelled	5.1	29	<b>PDB header:</b> dna binding protein <b>Chain:</b> B: <b>PDB Molecule:</b> ferric uptake regulation protein; <b>PDBTitle:</b> crystal structure of the dna binding domain of e.coli fur (ferric2 uptake regulator)
87	<a href="#">c2xa6B</a>		Alignment	not modelled	5.0	38	<b>PDB header:</b> transcription <b>Chain:</b> B: <b>PDB Molecule:</b> kh domain-containing\rna-binding\signal <b>PDBTitle:</b> structural basis for homodimerization of the src-associated2 during mitosis, 68 kd protein (sam68) qua1 domain