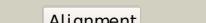
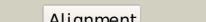
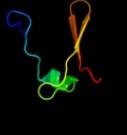
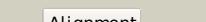


# Phyre<sup>2</sup>

Email	I.a.kelley@imperial.ac.uk
Description	P22186
Date	Thu Jan 5 11:38:44 GMT 2012
Unique Job ID	bb3134e5553afc9c

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c1n0ff_</a>			100.0	25	<b>PDB header:</b> biosynthetic protein <b>Chain:</b> F: <b>PDB Molecule:</b> protein mraz; <b>PDBTitle:</b> crystal structure of a cell division and cell wall2 biosynthesis protein upf0040 from mycoplasma pneumoniae: indication of a novel fold with a possible new conserved4 sequence motif
2	<a href="#">d1n0ea_</a>			100.0	25	<b>Fold:</b> Double-split beta-barrel <b>Superfamily:</b> AbrB/MazE/MraZ-like <b>Family:</b> Hypothetical protein MraZ
3	<a href="#">c2glwA_</a>			95.8	18	<b>PDB header:</b> transcription <b>Chain:</b> A: <b>PDB Molecule:</b> 92aa long hypothetical protein; <b>PDBTitle:</b> the solution structure of phs018 from pyrococcus horikoshii
4	<a href="#">c2w1tB_</a>			94.4	21	<b>PDB header:</b> transcription <b>Chain:</b> B: <b>PDB Molecule:</b> stage v sporulation protein t; <b>PDBTitle:</b> crystal structure of b. subtilis spovt
5	<a href="#">d1yfbal</a>			88.9	21	<b>Fold:</b> Double-split beta-barrel <b>Superfamily:</b> AbrB/MazE/MraZ-like <b>Family:</b> AbrB N-terminal domain-like
6	<a href="#">c2ro5B_</a>			88.0	21	<b>PDB header:</b> transcription <b>Chain:</b> B: <b>PDB Molecule:</b> stage v sporulation protein t; <b>PDBTitle:</b> rdc-refined solution structure of the n-terminal dna2 recognition domain of the bacillus subtilis transition-3 state regulator spovt
7	<a href="#">d2fy9a1</a>			87.6	21	<b>Fold:</b> Double-split beta-barrel <b>Superfamily:</b> AbrB/MazE/MraZ-like <b>Family:</b> AbrB N-terminal domain-like
8	<a href="#">c2166B_</a>			50.8	12	<b>PDB header:</b> transcription regulator <b>Chain:</b> B: <b>PDB Molecule:</b> transcriptional regulator, abrb family; <b>PDBTitle:</b> the dna-recognition fold of sso7c4 suggests a new member of spovt-abrb2 superfamily from archaea.
9	<a href="#">c3hs2H_</a>			41.5	15	<b>PDB header:</b> antitoxin <b>Chain:</b> H: <b>PDB Molecule:</b> prevent host death protein; <b>PDBTitle:</b> crystal structure of phd truncated to residue 57 in an orthorhombic2 space group
10	<a href="#">c3hryA_</a>			41.2	15	<b>PDB header:</b> antitoxin <b>Chain:</b> A: <b>PDB Molecule:</b> prevent host death protein; <b>PDBTitle:</b> crystal structure of phd in a trigonal space group and partially2 disordered
11	<a href="#">c3nnqA_</a>			33.9	21	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> n-terminal domain of moloney murine leukemia virus <b>PDBTitle:</b> crystal structure of the n-terminal domain of moloney murine leukemia2 virus integrase, northeast structural genomics consortium target or3

12	<a href="#">d2odka1</a>			32.2	18	<b>Fold:</b> YefM-like <b>Superfamily:</b> YefM-like <b>Family:</b> YefM-like
13	<a href="#">c2odkD_</a>			30.3	18	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> D: <b>PDB Molecule:</b> hypothetical protein; <b>PDBTitle:</b> putative prevent-host-death protein from nitrosomonas europaea
14	<a href="#">c3qq5A_</a>			27.5	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> small gtp-binding protein; <b>PDBTitle:</b> crystal structure of the [fefe]-hydrogenase maturation protein hydf
15	<a href="#">c2k2eA_</a>			22.9	32	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein bp2786; <b>PDBTitle:</b> solution nmr structure of bordetella pertussis protein2 bp2786, a mth938-like domain. northeast structural3 genomics consortium target ber31
16	<a href="#">c2c45F_</a>			21.8	13	<b>PDB header:</b> lyase <b>Chain:</b> F: <b>PDB Molecule:</b> aspartate 1-decarboxylase precursor; <b>PDBTitle:</b> native precursor of pyruvyl dependent aspartate2 decarboxylase
17	<a href="#">c1pt1B_</a>			21.1	15	<b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> aspartate 1-decarboxylase; <b>PDBTitle:</b> unprocessed pyruvyl dependent aspartate decarboxylase with histidine2 11 mutated to alanine
18	<a href="#">d1ppya_</a>			19.6	15	<b>Fold:</b> Double psi beta-barrel <b>Superfamily:</b> ADC-like <b>Family:</b> Pyruvyl dependent aspartate decarboxylase, ADC
19	<a href="#">d1wida_</a>			17.8	23	<b>Fold:</b> DNA-binding pseudobarrel domain <b>Superfamily:</b> DNA-binding pseudobarrel domain <b>Family:</b> B3 DNA binding domain
20	<a href="#">d2zgwa1</a>			16.5	44	<b>Fold:</b> SH3-like barrel <b>Superfamily:</b> C-terminal domain of transcriptional repressors <b>Family:</b> Biotin repressor (BirA)
21	<a href="#">d2a6qb1</a>		not modelled	15.2	10	<b>Fold:</b> YefM-like <b>Superfamily:</b> YefM-like <b>Family:</b> YefM-like
22	<a href="#">d1s6la1</a>		not modelled	15.1	21	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> "Winged helix" DNA-binding domain <b>Family:</b> MerB N-terminal domain-like
23	<a href="#">c3if4C_</a>		not modelled	15.1	33	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> C: <b>PDB Molecule:</b> integron cassette protein hfx_cass5; <b>PDBTitle:</b> structure from the mobile metagenome of north west arm2 sewage outfall: integron cassette protein hfx_cass5
24	<a href="#">c2zcpA_</a>		not modelled	15.1	5	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> dehydroisqualene synthase; <b>PDBTitle:</b> crystal structure of the c(30) carotenoid dehydroisqualene2 synthase from staphylococcus aureus complexed with 3 farnesyl thiopyrophosphate
25	<a href="#">d2q4qa1</a>		not modelled	14.9	16	<b>Fold:</b> MTH938-like <b>Superfamily:</b> MTH938-like <b>Family:</b> MTH938-like
26	<a href="#">c2gm2A_</a>		not modelled	14.0	11	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> conserved hypothetical protein; <b>PDBTitle:</b> nmr structure of xanthomonas campestris xcc1710: northeast2 structural genomics consortium target xcr35
27	<a href="#">d1d7qa_</a>		not modelled	13.7	14	<b>Fold:</b> OB-fold <b>Superfamily:</b> Nucleic acid-binding proteins <b>Family:</b> Cold shock DNA-binding domain-like
28	<a href="#">d2a6qa1</a>		not modelled	13.5	10	<b>Fold:</b> YefM-like <b>Superfamily:</b> YefM-like <b>Family:</b> YefM-like
						<b>PDB header:</b> unknown function

29	<a href="#">c2kdnA</a>		Alignment	not modelled	13.3	13	<b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein pfe0790c; <b>PDBTitle:</b> solution structure of pfe0790c, a putative bola-like2 protein from the protozoan parasite plasmodium falciparum.
30	<a href="#">c3dwmA</a>		Alignment	not modelled	13.0	35	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> 9.5 kda culture filtrate antigen cfp10a; <b>PDBTitle:</b> crystal structure of mycobacterium tuberculosis cyso, an antigen
31	<a href="#">c2oqkA</a>		Alignment	not modelled	12.2	14	<b>PDB header:</b> translation <b>Chain:</b> A: <b>PDB Molecule:</b> putative translation initiation factor eif-1a; <b>PDBTitle:</b> crystal structure of putative cryptosporidium parvum translation2 initiation factor eif-1a
32	<a href="#">d1lpfa2</a>		Alignment	not modelled	12.0	6	<b>Fold:</b> FAD/NAD(P)-binding domain <b>Superfamily:</b> FAD/NAD(P)-binding domain <b>Family:</b> FAD/NAD-linked reductases, N-terminal and central domains
33	<a href="#">c2dgxA</a>		Alignment	not modelled	11.9	14	<b>PDB header:</b> translation <b>Chain:</b> A: <b>PDB Molecule:</b> mgc11102 protein; <b>PDBTitle:</b> solution structure of the eukaryotic initiation factor 1a2 in mgc11102 protein
34	<a href="#">d2fvta1</a>		Alignment	not modelled	11.2	8	<b>Fold:</b> MTH938-like <b>Superfamily:</b> MTH938-like <b>Family:</b> MTH938-like
35	<a href="#">d1ef4a</a>		Alignment	not modelled	11.0	20	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> RNA polymerase subunit RPB10 <b>Family:</b> RNA polymerase subunit RPB10
36	<a href="#">d2fi9a1</a>		Alignment	not modelled	10.3	13	<b>Fold:</b> MTH938-like <b>Superfamily:</b> MTH938-like <b>Family:</b> MTH938-like
37	<a href="#">c3errB</a>		Alignment	not modelled	10.1	24	<b>PDB header:</b> ligase <b>Chain:</b> B: <b>PDB Molecule:</b> fusion protein of microtubule binding domain from <b>PDBTitle:</b> microtubule binding domain from mouse cytoplasmic dynein as2 a fusion with seryl-trna synthetase
38	<a href="#">d1m7ja1</a>		Alignment	not modelled	10.0	23	<b>Fold:</b> Composite domain of metallo-dependent hydrolases <b>Superfamily:</b> Composite domain of metallo-dependent hydrolases <b>Family:</b> D-aminoacylase
39	<a href="#">d2b7oa1</a>		Alignment	not modelled	9.7	21	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> Aldolase <b>Family:</b> Class-II DAHP synthetase
40	<a href="#">c3zvkG</a>		Alignment	not modelled	9.5	20	<b>PDB header:</b> antitoxin/toxin/dna <b>Chain:</b> G: <b>PDB Molecule:</b> antitoxin of toxin-antitoxin system vapb; <b>PDBTitle:</b> crystal structure of vapbc2 from rickettsia felis bound to2 a dna fragment from their promoter
41	<a href="#">c2dq3A</a>		Alignment	not modelled	9.1	25	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> seryl-trna synthetase; <b>PDBTitle:</b> crystal structure of ad_298
42	<a href="#">d2j7ja2</a>		Alignment	not modelled	9.1	40	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
43	<a href="#">c2ubpC</a>		Alignment	not modelled	8.6	16	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> protein (urease alpha subunit); <b>PDBTitle:</b> structure of native urease from bacillus pasteurii
44	<a href="#">d1jt8a</a>		Alignment	not modelled	8.1	14	<b>Fold:</b> OB-fold <b>Superfamily:</b> Nucleic acid-binding proteins <b>Family:</b> Cold shock DNA-binding domain-like
45	<a href="#">c2dq0A</a>		Alignment	not modelled	7.9	29	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> seryl-trna synthetase; <b>PDBTitle:</b> crystal structure of seryl-trna synthetase from pyrococcus2 horikoshii complexed with a seryl-adenylate analog
46	<a href="#">d1xova1</a>		Alignment	not modelled	7.9	63	<b>Fold:</b> SH3-like barrel <b>Superfamily:</b> Prokaryotic SH3-related domain <b>Family:</b> Ply C-terminal domain-like
47	<a href="#">d1seta2</a>		Alignment	not modelled	7.9	24	<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
48	<a href="#">d1v59a2</a>		Alignment	not modelled	7.6	10	<b>Fold:</b> FAD/NAD(P)-binding domain <b>Superfamily:</b> FAD/NAD(P)-binding domain <b>Family:</b> FAD/NAD-linked reductases, N-terminal and central domains
49	<a href="#">d1s32d</a>		Alignment	not modelled	7.5	50	<b>Fold:</b> Histone-fold <b>Superfamily:</b> Histone-fold <b>Family:</b> Nucleosome core histones
50	<a href="#">c3df0C</a>		Alignment	not modelled	7.5	23	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> calpastatin; <b>PDBTitle:</b> calcium-dependent complex between m-calpain and calpastatin
51	<a href="#">c1hzeB</a>		Alignment	not modelled	7.3	11	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> riboflavin synthase alpha chain; <b>PDBTitle:</b> solution structure of the n-terminal domain of riboflavin synthase2 from e. coli
52	<a href="#">c1i18B</a>		Alignment	not modelled	7.3	11	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> riboflavin synthase alpha chain; <b>PDBTitle:</b> solution structure of the n-terminal domain of riboflavin synthase2 from e. coli
53	<a href="#">c3h5fB</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> B: <b>PDB Molecule:</b> coil ser l16l-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.
54	<a href="#">c3h5gA</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> A: <b>PDB Molecule:</b> coil ser l16d-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.

55	<a href="#">c3h5gC</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> C: <b>PDB Molecule:</b> coil ser l16d-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.
56	<a href="#">c3h5fA</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> A: <b>PDB Molecule:</b> coil ser l16l-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.
57	<a href="#">c3h5fC</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> C: <b>PDB Molecule:</b> coil ser l16l-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.
58	<a href="#">c3h5gB</a>		Alignment	not modelled	7.3	39	<b>PDB header:</b> de novo protein <b>Chain:</b> B: <b>PDB Molecule:</b> coil ser l16d-pen; <b>PDBTitle:</b> switching the chirality of the metal environment alters the2 coordination mode in designed peptides.
59	<a href="#">d1eqzb</a>		Alignment	not modelled	7.2	50	<b>Fold:</b> Histone-fold <b>Superfamily:</b> Histone-fold <b>Family:</b> Nucleosome core histones
60	<a href="#">d1k1da1</a>		Alignment	not modelled	7.2	25	<b>Fold:</b> Composite domain of metallo-dependent hydrolases <b>Superfamily:</b> Composite domain of metallo-dependent hydrolases <b>Family:</b> Hydantoinase (dihydropyrimidinase)
61	<a href="#">c1sryB</a>		Alignment	not modelled	7.1	21	<b>PDB header:</b> ligase(synthetase) <b>Chain:</b> B: <b>PDB Molecule:</b> seryl-trna synthetase; <b>PDBTitle:</b> refined crystal structure of the seryl-trna synthetase from2 thermus thermophilus at 2.5 angstroms resolution
62	<a href="#">d1tzyb</a>		Alignment	not modelled	6.9	50	<b>Fold:</b> Histone-fold <b>Superfamily:</b> Histone-fold <b>Family:</b> Nucleosome core histones
63	<a href="#">d2p9ba1</a>		Alignment	not modelled	6.8	30	<b>Fold:</b> Composite domain of metallo-dependent hydrolases <b>Superfamily:</b> Composite domain of metallo-dependent hydrolases <b>Family:</b> Imidazolonepropionase-like
64	<a href="#">c1e9yB</a>		Alignment	not modelled	6.5	16	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> urease subunit beta; <b>PDBTitle:</b> crystal structure of helicobacter pylori urease in complex with2 acetohydroxamic acid
65	<a href="#">c3la4A</a>		Alignment	not modelled	6.5	21	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> urease; <b>PDBTitle:</b> crystal structure of the first plant urease from jack bean (canavalia2 ensiformis)
66	<a href="#">d1kx5d</a>		Alignment	not modelled	6.5	50	<b>Fold:</b> Histone-fold <b>Superfamily:</b> Histone-fold <b>Family:</b> Nucleosome core histones
67	<a href="#">d1lvla2</a>		Alignment	not modelled	6.4	16	<b>Fold:</b> FAD/NAD(P)-binding domain <b>Superfamily:</b> FAD/NAD(P)-binding domain <b>Family:</b> FAD/NAD-linked reductases, N-terminal and central domains
68	<a href="#">d2gv8a2</a>		Alignment	not modelled	6.4	22	<b>Fold:</b> FAD/NAD(P)-binding domain <b>Superfamily:</b> FAD/NAD(P)-binding domain <b>Family:</b> FAD/NAD-linked reductases, N-terminal and central domains
69	<a href="#">d2gf6a1</a>		Alignment	not modelled	6.3	4	<b>Fold:</b> Thioesterase/thiol ester dehydrase-isomerase <b>Superfamily:</b> Thioesterase/thiol ester dehydrase-isomerase <b>Family:</b> 4HBT-like
70	<a href="#">d2ftwa1</a>		Alignment	not modelled	6.3	14	<b>Fold:</b> Composite domain of metallo-dependent hydrolases <b>Superfamily:</b> Composite domain of metallo-dependent hydrolases <b>Family:</b> Hydantoinase (dihydropyrimidinase)
71	<a href="#">c3jywM</a>		Alignment	not modelled	6.2	19	<b>PDB header:</b> ribosome <b>Chain:</b> M: <b>PDB Molecule:</b> 60s ribosomal protein l16(a); <b>PDBTitle:</b> structure of the 60s proteins for eukaryotic ribosome based on cryo-em2 map of thermomyces lanuginosus ribosome at 8.9a resolution
72	<a href="#">d1id3d</a>		Alignment	not modelled	6.2	42	<b>Fold:</b> Histone-fold <b>Superfamily:</b> Histone-fold <b>Family:</b> Nucleosome core histones
73	<a href="#">c2vlgD</a>		Alignment	not modelled	6.2	21	<b>PDB header:</b> transferase <b>Chain:</b> D: <b>PDB Molecule:</b> sporulation kinase a; <b>PDBTitle:</b> kina pas-a domain, homodimer
74	<a href="#">d2nn6d2</a>		Alignment	not modelled	6.2	23	<b>Fold:</b> Ribonuclease PH domain 2-like <b>Superfamily:</b> Ribonuclease PH domain 2-like <b>Family:</b> Ribonuclease PH domain 2-like
75	<a href="#">d1d6za4</a>		Alignment	not modelled	6.1	10	<b>Fold:</b> N domain of copper amine oxidase-like <b>Superfamily:</b> Copper amine oxidase, domain N <b>Family:</b> Copper amine oxidase, domain N
76	<a href="#">d1ejxc1</a>		Alignment	not modelled	5.9	16	<b>Fold:</b> Composite domain of metallo-dependent hydrolases <b>Superfamily:</b> Composite domain of metallo-dependent hydrolases <b>Family:</b> alpha-Subunit of urease
77	<a href="#">d1vi7a2</a>		Alignment	not modelled	5.8	14	<b>Fold:</b> Ferrodoxin-like <b>Superfamily:</b> EF-G C-terminal domain-like <b>Family:</b> YigZ C-terminal domain-like
78	<a href="#">c2pmzN</a>		Alignment	not modelled	5.5	19	<b>PDB header:</b> translation, transferase <b>Chain:</b> N: <b>PDB Molecule:</b> dna-directed rna polymerase subunit n; <b>PDBTitle:</b> archaeal rna polymerase from sulfolobus solfataricus
79	<a href="#">d2p5zx1</a>		Alignment	not modelled	5.5	23	<b>Fold:</b> OB-fold <b>Superfamily:</b> gp5 N-terminal domain-like <b>Family:</b> gp4 N-terminal domain-like
80	<a href="#">d1wjwa</a>		Alignment	not modelled	5.5	9	<b>Fold:</b> TBP-like <b>Superfamily:</b> Phosphoglucomutase, C-terminal domain <b>Family:</b> Phosphoglucomutase, C-terminal domain
81	<a href="#">c4aal1</a>		Alignment	not modelled	5.4	16	<b>PDB header:</b> ribosome <b>Chain:</b> I: <b>PDB Molecule:</b> 60s ribosomal protein l13a; <b>PDBTitle:</b> tthermophila 60s ribosomal subunit in complex with2

					initiation factor 6. this file contains 5s rrna,3 5.8s rrna and proteins of molecule 3.
82	<a href="#">d1ojta2</a>		not modelled	5.4	<b>8</b> <b>Fold:</b> FAD/NAD(P)-binding domain <b>Superfamily:</b> FAD/NAD(P)-binding domain <b>Family:</b> FAD/NAD-linked reductases, N-terminal and central domains
83	<a href="#">c3ei4D</a>		not modelled	5.4	<b>5</b> <b>PDB header:</b> dna binding protein <b>Chain:</b> D: <b>PDB Molecule:</b> dna damage-binding protein 2; <b>PDBTitle:</b> structure of the hsddb1-hsddb2 complex