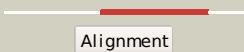

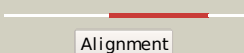

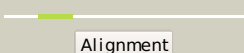

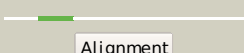
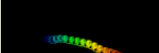
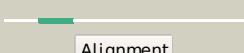
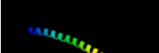
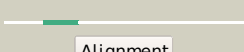
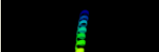
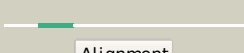
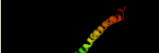
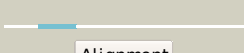
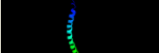

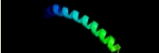

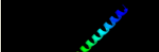




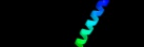
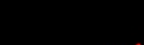
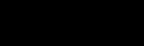






Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P41067
Date	Thu Jan 5 12:01:24 GMT 2012
Unique Job ID	970488b0d5b08b2d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3jqoV_	 Alignment		99.9	15	PDB header: transport protein Chain: V: PDB Molecule: traf protein; PDBTitle: crystal structure of the outer membrane complex of a type iv2 secretion system
2	c2bhvC_	 Alignment		99.8	19	PDB header: bacterial protein Chain: C: PDB Molecule: comb10; PDBTitle: structure of comb10 of the com type iv secretion system of2 helicobacter pylori
3	c3ghgK_	 Alignment		63.9	5	PDB header: blood clotting Chain: K: PDB Molecule: fibrinogen beta chain; PDBTitle: crystal structure of human fibrinogen
4	c1ei3E_	 Alignment		52.3	5	PDB header: PDB COMPND:
5	c3n4xB_	 Alignment		46.4	13	PDB header: replication Chain: B: PDB Molecule: monopolin complex subunit csm1; PDBTitle: structure of csm1 full-length
6	c3m9bK_	 Alignment		43.6	22	PDB header: chaperone Chain: K: PDB Molecule: proteasome-associated atpase; PDBTitle: crystal structure of the amino terminal coiled coil domain and the2 inter domain of the mycobacterium tuberculosis proteasomal atpase mpa
7	c1deqO_	 Alignment		41.4	5	PDB header: PDB COMPND:
8	c1deaF_	 Alignment		39.1	11	PDB header: PDB COMPND:
9	c3l9oA_	 Alignment		38.7	12	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase dob1; PDBTitle: crystal structure of mtr4, a co-factor of the nuclear exosome
10	c3ojaB_	 Alignment		38.3	24	PDB header: protein binding Chain: B: PDB Molecule: anopheles plasmodium-responsive leucine-rich repeat protein PDBTitle: crystal structure of lrim1/apl1c complex
11	c3hnnwB_	 Alignment		36.0	14	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a basic coiled-coil protein of unknown function2 from eubacterium eligens atcc 27750

12	c2jeeA_	Alignment		25.4	18	PDB header: cell cycle Chain: A: PDB Molecule: yiiu; PDBTitle: xray structure of e. coli yiu
13	d1d0gr1	Alignment		22.9	55	Fold: TNF receptor-like Superfamily: TNF receptor-like Family: TNF receptor-like
14	c2x7aB_	Alignment		22.8	26	PDB header: immune system Chain: B: PDB Molecule: bone marrow stromal antigen 2; PDBTitle: structural basis of hiv-1 tethering to membranes by the2 bst2-tetherin ectodomain
15	c3a7pB_	Alignment		22.3	10	PDB header: protein transport Chain: B: PDB Molecule: autophagy protein 16; PDBTitle: the crystal structure of saccharomyces cerevisiae atg16
16	c3dtpA_	Alignment		21.7	11	PDB header: contractile protein Chain: A: PDB Molecule: myosin 2 heavy chain chimera of smooth and PDBTitle: tarantula heavy meromyosin obtained by flexible docking to2 tarantula muscle thick filament cryo-em 3d-map
17	c2oqqB_	Alignment		20.8	17	PDB header: transcription Chain: B: PDB Molecule: transcription factor hy5; PDBTitle: crystal structure of hy5 leucine zipper homodimer from2 arabidopsis thaliana
18	c2xzrA_	Alignment		19.6	13	PDB header: cell adhesion Chain: A: PDB Molecule: immunoglobulin-binding protein eibd; PDBTitle: escherichia coli immunoglobulin-binding protein eibd 391-438 fused2 to gcn4 adaptors
19	d2fd6u3	Alignment		19.5	26	Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Extracellular domain of cell surface receptors
20	c2hpcF_	Alignment		19.5	14	PDB header: blood clotting Chain: F: PDB Molecule: fibrinogen, gamma polypeptide; PDBTitle: crystal structure of fragment d from human fibrinogen complexed with2 gly-pro-arg-pro-amide.
21	c1cz7C_	Alignment	not modelled	18.7	13	PDB header: contractile protein Chain: C: PDB Molecule: microtubule motor protein ncd; PDBTitle: the crystal structure of a minus-end directed microtubule2 motor protein ncd reveals variable dimer conformations
22	c2xgiA_	Alignment	not modelled	18.5	13	PDB header: hydrolase/rna Chain: A: PDB Molecule: atp-dependent rna helicase dob1; PDBTitle: structure of mtr4, a dexh helicase involved in nuclear rna2 processing and surveillance
23	c2w6aB_	Alignment	not modelled	18.3	22	PDB header: signaling protein Chain: B: PDB Molecule: arf gtpase-activating protein git1; PDBTitle: x-ray structure of the dimeric git1 coiled-coil domain
24	c3oa7A_	Alignment	not modelled	18.2	17	PDB header: structural protein Chain: A: PDB Molecule: head morphogenesis protein, chaotic nuclear migration PDBTitle: structure of the c-terminal domain of cnm67, a core component of the2 spindle pole body of saccharomyces cerevisiae
25	c1junB_	Alignment	not modelled	17.5	11	PDB header: transcription regulation Chain: B: PDB Molecule: c-jun homodimer; PDBTitle: nmr study of c-jun homodimer
26	c2yy0D_	Alignment	not modelled	15.6	3	PDB header: transcription Chain: D: PDB Molecule: c-myc-binding protein; PDBTitle: crystal structure of ms0802, c-myc-1 binding protein domain2 from homo sapiens
27	c1n73C_	Alignment	not modelled	15.4	8	PDB header: blood clotting Chain: C: PDB Molecule: fibrin gamma chain; PDBTitle: fibrin d-dimer, lamprey complexed with the peptide ligand: gly-his-2 arg-pro-amide
28	c2z0fA_	Alignment	not modelled	15.3	9	PDB header: isomerase Chain: A: PDB Molecule: putative phosphoglucumutase; PDBTitle: crystal structure of putative phosphoglucumutase from

						thermus2 thermophilus hb8
29	c2jo1A_	Alignment	not modelled	14.4	17	PDB header: hydrolase regulator Chain: A: PDB Molecule: phospholemman; PDBTitle: structure of the na,k-atpase regulatory protein fxyd1 in2 micelles
30	d1gpia_	Alignment	not modelled	13.2	19	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Glycosyl hydrolase family 7 catalytic core
31	c1dipA_	Alignment	not modelled	13.0	18	PDB header: acetylation Chain: A: PDB Molecule: delta-sleep-inducing peptide immunoreactive PDBTitle: the solution structure of porcine delta-sleep-inducing2 peptide immunoreactive peptide, nmr, 10 structures
32	d1ogda_	Alignment	not modelled	12.9	16	Fold: RbsD-like Superfamily: RbsD-like Family: RbsD-like
33	d2ncda_	Alignment	not modelled	12.7	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Motor proteins
34	d1fxkc_	Alignment	not modelled	12.7	11	Fold: Long alpha-hairpin Superfamily: Prefoldin Family: Prefoldin
35	c1jocA_	Alignment	not modelled	12.7	13	PDB header: membrane protein Chain: A: PDB Molecule: early endosomal autoantigen 1; PDBTitle: eea1 homodimer of c-terminal fyve domain bound to inositol2 1,3-diphosphate
36	c3he5D_	Alignment	not modelled	12.7	18	PDB header: de novo protein Chain: D: PDB Molecule: synzip2; PDBTitle: heterospecific coiled-coil pair synzip2:synzip1
37	c2wl2B_	Alignment	not modelled	12.0	16	PDB header: isomerase Chain: B: PDB Molecule: dna gyrase subunit a; PDBTitle: crystal structure of n-terminal domain of gyra with the2 antibiotic simocyclinone d8
38	c3hizB_	Alignment	not modelled	11.8	9	PDB header: transferase/oncoprotein Chain: B: PDB Molecule: phosphatidylinositol 3-kinase regulatory subunit PDBTitle: crystal structure of p110alpha h1047r mutant in complex with2 nish2 of p85alpha
39	c3cvfA_	Alignment	not modelled	11.3	12	PDB header: signaling protein Chain: A: PDB Molecule: homer protein homolog 3; PDBTitle: crystal structure of the carboxy terminus of homer3
40	c3h9mA_	Alignment	not modelled	11.2	20	PDB header: lyase Chain: A: PDB Molecule: p-aminobenzoate synthetase, component i; PDBTitle: crystal structure of para-aminobenzoate synthetase,2 component i from cytophaga hutchinsonii
41	d1ykbb1	Alignment	not modelled	11.2	20	Fold: Mediator hinge subcomplex-like Superfamily: Mediator hinge subcomplex-like Family: CSE2-like
42	c3hd7A_	Alignment	not modelled	11.2	13	PDB header: exocytosis Chain: A: PDB Molecule: vesicle-associated membrane protein 2; PDBTitle: helical extension of the neuronal snare complex into the membrane,2 spacegroup c 1 2 1
43	c3ni0A_	Alignment	not modelled	11.1	17	PDB header: immune system Chain: A: PDB Molecule: bone marrow stromal antigen 2; PDBTitle: crystal structure of mouse bst-2/tetherin ectodomain
44	c2wukD_	Alignment	not modelled	10.6	8	PDB header: cell cycle Chain: D: PDB Molecule: septum site-determining protein diviva; PDBTitle: diviva n-terminal domain, f17a mutant
45	c2x5qA_	Alignment	not modelled	10.6	16	PDB header: unknown function Chain: A: PDB Molecule: sso1986; PDBTitle: crystal structure of hypothetical protein sso1986 from2 sulfolobus solfataricus p2
46	d1ivsa1	Alignment	not modelled	10.4	10	Fold: Long alpha-hairpin Superfamily: tRNA-binding arm Family: Valyl-tRNA synthetase (ValRS) C-terminal domain
47	c3q0xA_	Alignment	not modelled	10.3	12	PDB header: structural protein Chain: A: PDB Molecule: centriole protein; PDBTitle: n-terminal coiled-coil dimer domain of c. reinhardtii sas-6 homolog2 bld12p
48	c2gl2B_	Alignment	not modelled	9.9	10	PDB header: cell adhesion Chain: B: PDB Molecule: adhesion a; PDBTitle: crystal structure of the tetra mutant (t66g,r67g,f68g,2 y69g) of bacterial adhesin fada
49	c3i3wB_	Alignment	not modelled	9.6	20	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucosamine mutase; PDBTitle: structure of a phosphoglucosamine mutase from francisella tularensis
50	d2ga1a1	Alignment	not modelled	9.5	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Alr1493-like
51	c2aanA_	Alignment	not modelled	9.4	31	PDB header: electron transport Chain: A: PDB Molecule: auracyanin a; PDBTitle: auracyanin a: a "blue" copper protein from the green thermophilic2 photosynthetic bacterium,chlroflexus aurantiacus
52	c2fuvB_	Alignment	not modelled	9.4	8	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucomutase; PDBTitle: phosphoglucomutase from salmonella typhimurium.
53	d1e30a_	Alignment	not modelled	9.2	33	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
54	d2ob5a1	Alignment	not modelled	9.1	24	Fold: RbsD-like Superfamily: RbsD-like

						Family:RbsD-like
55	c1ci6A_	Alignment	not modelled	9.1	16	PDB header: transcription Chain: A: PDB Molecule: transcription factor atf-4; PDBTitle: transcription factor atf4-c/ebp beta bzip heterodimer
56	c2ykqC_	Alignment	not modelled	9.0	13	PDB header: rna-binding protein Chain: C: PDB Molecule: line-1 orf1p; PDBTitle: structure of the human line-1 orf1p trimer
57	c3ol1A_	Alignment	not modelled	8.9	8	PDB header: structural protein Chain: A: PDB Molecule: vimentin; PDBTitle: crystal structure of vimentin (fragment 144-251) from homo sapiens,2 northeast structural genomics consortium target hr4796b
58	c1cosC_	Alignment	not modelled	8.5	16	PDB header: alpha-helical bundle Chain: C: PDB Molecule: coiled serine; PDBTitle: crystal structure of a synthetic triple-stranded alpha-2 helical bundle
59	c1cosB_	Alignment	not modelled	8.5	16	PDB header: alpha-helical bundle Chain: B: PDB Molecule: coiled serine; PDBTitle: crystal structure of a synthetic triple-stranded alpha-2 helical bundle
60	c1cosA_	Alignment	not modelled	8.5	16	PDB header: alpha-helical bundle Chain: A: PDB Molecule: coiled serine; PDBTitle: crystal structure of a synthetic triple-stranded alpha-2 helical bundle
61	c2zdiC_	Alignment	not modelled	8.4	13	PDB header: chaperone Chain: C: PDB Molecule: prefoldin subunit alpha; PDBTitle: crystal structure of prefoldin from pyrococcus horikoshii2 ot3
62	c1l4aD_	Alignment	not modelled	8.4	11	PDB header: endocytosis/exocytosis Chain: D: PDB Molecule: s-snap25 fusion protein; PDBTitle: x-ray structure of the neuronal complexin/snare complex2 from the squid loligo pealei
63	c1debA_	Alignment	not modelled	8.2	26	PDB header: structural protein Chain: A: PDB Molecule: adenomatous polyposis coli protein; PDBTitle: crystal structure of the n-terminal coiled coil domain from2 apc
64	d2axtj1	Alignment	not modelled	8.2	25	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein J, PsbJ Family: PsbJ-like
65	c3iv1F_	Alignment	not modelled	8.0	15	PDB header: hydrolase Chain: F: PDB Molecule: tumor susceptibility gene 101 protein; PDBTitle: coiled-coil domain of tumor susceptibility gene 101
66	d2rky2	Alignment	not modelled	8.0	27	Fold: Fnl-like domain Superfamily: Fnl-like domain Family: Fibronectin type I module
67	c3u59C_	Alignment	not modelled	7.7	8	PDB header: contractile protein Chain: C: PDB Molecule: tropomyosin beta chain; PDBTitle: n-terminal 98-aa fragment of smooth muscle tropomyosin beta
68	c1tuoA_	Alignment	not modelled	7.5	14	PDB header: biosynthetic protein Chain: A: PDB Molecule: putative phosphomannomutase; PDBTitle: crystal structure of putative phosphomannomutase from2 thermus thermophilus hb8
69	c1jccC_	Alignment	not modelled	7.3	7	PDB header: membrane protein Chain: C: PDB Molecule: major outer membrane lipoprotein; PDBTitle: crystal structure of a novel alanine-zipper trimer at 1.7 a2 resolution, v13a,l16a,v20a,l23a,v27a,m30a,v34a mutations
70	d1sdda1	Alignment	not modelled	7.3	25	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multidomain cupredoxins
71	c2js5B_	Alignment	not modelled	7.3	22	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: nmr structure of protein q60c73_metca. northeast structural2 genomics consortium target mcr1
72	d2phcb1	Alignment	not modelled	7.3	21	Fold: Cyclophilin-like Superfamily: Cyclophilin-like Family: PH0987 C-terminal domain-like
73	c3bvhC_	Alignment	not modelled	7.2	9	PDB header: blood clotting Chain: C: PDB Molecule: fibrinogen gamma chain; PDBTitle: crystal structure of recombinant gammad364a fibrinogen fragment d with2 the peptide ligand gly-pro-arg-pro-amide
74	c2kg4A_	Alignment	not modelled	7.1	26	PDB header: cell cycle Chain: A: PDB Molecule: growth arrest and dna-damage-inducible protein PDBTitle: three-dimensional structure of human gadd45alpha in2 solution by nmr
75	d1tsfa_	Alignment	not modelled	7.1	13	Fold: Rof/RNase P subunit-like Superfamily: Rof/RNase P subunit-like Family: RNase P subunit p29-like
76	d1qhga_	Alignment	not modelled	7.0	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
77	d2cpt1	Alignment	not modelled	6.9	24	Fold: Spectrin repeat-like Superfamily: MIT domain Family: MIT domain
78	c2phcB_	Alignment	not modelled	6.7	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein ph0987; PDBTitle: crystal structure of conserved uncharacterized protein ph0987 from2 pyrococcus horikoshii
79	c1fosF_	Alignment	not modelled	6.7	12	PDB header: transcription/dna Chain: F: PDB Molecule: c-jun proto-oncogene protein; PDBTitle: two human c-fos:c-jun:dna complexes
80	c3hvbZ_	Alignment	not modelled	6.7	20	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the tgs domain of the clolep_03100

						protein from2 clostridium leptum, northeast structural genomics consortium target3 qlr13a
81	c3iynR_	Alignment	not modelled	6.6	21	PDB header: virus Chain: R: PDB Molecule: hexon-associated protein; PDBTitle: 3.6-angstrom cryoem structure of human adenovirus type 5
82	c3lqiA_	Alignment	not modelled	6.5	24	PDB header: transferase Chain: A: PDB Molecule: ml11 phd3-bromo; PDBTitle: crystal structure of ml11 phd3-bromo complexed with h3(1-9)k4me22 peptide
83	c3qo8A_	Alignment	not modelled	6.5	12	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase, cytoplasmic; PDBTitle: crystal structure of seryl-trna synthetase from candida albicans
84	d1wr0a1	Alignment	not modelled	6.5	18	Fold: Spectrin repeat-like Superfamily: MIT domain Family: MIT domain
85	d1hfua1	Alignment	not modelled	6.4	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multi domain cupredoxins
86	c2xgfA_	Alignment	not modelled	6.3	22	PDB header: viral protein Chain: A: PDB Molecule: long tail fiber protein p37; PDBTitle: structure of the bacteriophage t4 long tail fibre needle-2 shaped receptor-binding tip
87	d1an2a_	Alignment	not modelled	6.3	11	Fold: HLH-like Superfamily: HLH, helix-loop-helix DNA-binding domain Family: HLH, helix-loop-helix DNA-binding domain
88	c1bf5A_	Alignment	not modelled	6.1	13	PDB header: gene regulation/dna Chain: A: PDB Molecule: signal transducer and activator of transcription PDBTitle: tyrosine phosphorylated stat-1/dna complex
89	d1l8na2	Alignment	not modelled	6.1	13	Fold: Zincin-like Superfamily: beta-N-acetylhexosaminidase-like domain Family: alpha-D-glucuronidase, N-terminal domain
90	c3b5nC_	Alignment	not modelled	6.1	3	PDB header: membrane protein Chain: C: PDB Molecule: protein transport protein sec9; PDBTitle: structure of the yeast plasma membrane snare complex
91	d1nkpa_	Alignment	not modelled	6.0	20	Fold: HLH-like Superfamily: HLH, helix-loop-helix DNA-binding domain Family: HLH, helix-loop-helix DNA-binding domain
92	c3demB_	Alignment	not modelled	6.0	21	PDB header: hydrolase Chain: B: PDB Molecule: complement factor masp-3; PDBTitle: cub1-egf-cub2 domain of human masp-1/3
93	c2eqbC_	Alignment	not modelled	5.9	12	PDB header: endocytosis/exocytosis Chain: C: PDB Molecule: rab guanine nucleotide exchange factor sec2; PDBTitle: crystal structure of the rab gtpase sec4p, the sec2p gef2 domain, and phosphate complex
94	c2rfyB_	Alignment	not modelled	5.9	12	PDB header: hydrolase Chain: B: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: crystal structure of cellobiohydrolase from melanocarpus2 albomyces complexed with cellobiose
95	c1coiA_	Alignment	not modelled	5.8	12	PDB header: alpha-helical bundle Chain: A: PDB Molecule: coil-vald; PDBTitle: designed trimeric coiled coil-vald
96	c1zbtA_	Alignment	not modelled	5.7	12	PDB header: translation Chain: A: PDB Molecule: peptide chain release factor 1; PDBTitle: crystal structure of peptide chain release factor 1 (rf-1) (smu.1085)2 from streptococcus mutans at 2.34 a resolution
97	d2h8pc1	Alignment	not modelled	5.7	11	Fold: Voltage-gated potassium channels Superfamily: Voltage-gated potassium channels Family: Voltage-gated potassium channels
98	d1gyca1	Alignment	not modelled	5.7	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multi domain cupredoxins
99	c3bg4D_	Alignment	not modelled	5.7	45	PDB header: hydrolase/hydrolase inhibitor Chain: D: PDB Molecule: guamerin; PDBTitle: the crystal structure of guamerin in complex with2 chymotrypsin and the development of an elastase-specific3 inhibitor