

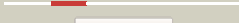
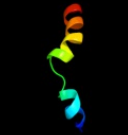



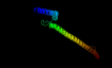

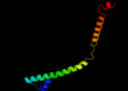

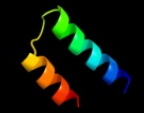

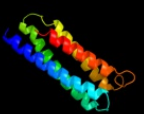



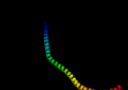

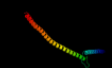

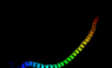


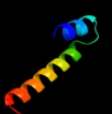
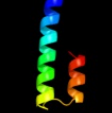


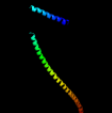

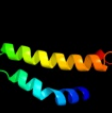


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P32703
Date	Thu Jan 5 11:50:22 GMT 2012
Unique Job ID	27ef29db561a90cd

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1zcdA_	 Alignment		99.9	14	PDB header: membrane protein Chain: A; PDB Molecule: na(+)/h(+) antiporter 1; PDBTitle: crystal structure of the na+/h+ antiporter nhaa
2	c2l0eA_	 Alignment		93.7	22	PDB header: membrane protein Chain: A; PDB Molecule: sodium/hydrogen exchanger 1; PDBTitle: structural and functional analysis of tm vi of the nhe1 isoform of the2 na+/h+ exchanger
3	c2kbvA_	 Alignment		84.4	26	PDB header: membrane protein Chain: A; PDB Molecule: sodium/hydrogen exchanger 1; PDBTitle: structural and functional analysis of tm xi of the nhe12 isoform of the na+/h+ exchanger
4	c3ojaB_	 Alignment		43.8	11	PDB header: protein binding Chain: B; PDB Molecule: anopheles plasmodium-responsive leucine-rich repeat protein PDBTitle: crystal structure of lrim1/apl1c complex
5	d1f6ga_	 Alignment		37.9	14	Fold: Voltage-gated potassium channels Superfamily: Voltage-gated potassium channels Family: Voltage-gated potassium channels
6	c3hzaA_	 Alignment		33.3	12	PDB header: transferase Chain: A; PDB Molecule: monofunctional glycosyltransferase; PDBTitle: s. aureus monofunctional glycosyltransferase (mtga)in complex with2 moenomycin
7	c1y4cA_	 Alignment		32.4	13	PDB header: de novo protein Chain: A; PDB Molecule: maltose binding protein fused with designed PDBTitle: designed helical protein fusion mbp
8	d1vqop1	 Alignment		29.1	19	Fold: Ribosomal protein L19 (L19e) Superfamily: Ribosomal protein L19 (L19e) Family: Ribosomal protein L19 (L19e)
9	c2zv4O_	 Alignment		28.0	11	PDB header: structural protein Chain: O; PDB Molecule: major vault protein; PDBTitle: the structure of rat liver vault at 3.5 angstrom resolution
10	c3ojaA_	 Alignment		25.2	11	PDB header: protein binding Chain: A; PDB Molecule: leucine-rich immune molecule 1; PDBTitle: crystal structure of lrim1/apl1c complex
11	c3dtpA_	 Alignment		24.0	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

12	d2csba1	Alignment		22.4	14	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Topoisomerase V repeat domain
13	c4a1cO_	Alignment		22.3	16	PDB header: ribosome Chain: O: PDB Molecule: rpl19; PDBTitle: t.thermophila 60s ribosomal subunit in complex with2 initiation factor 6. this file contains 5s rrna,3 5.8s rrna and proteins of molecule 4.
14	c3exmA_	Alignment		20.6	6	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase sc4828; PDBTitle: crystal structure of the phosphatase sc4828 with the non-hydrolyzable2 nucleotide gpcp
15	c2zkrp_	Alignment		20.6	19	PDB header: ribosomal protein/rna Chain: P: PDB Molecule: rna expansion segment es31 part i; PDBTitle: structure of a mammalian ribosomal 60s subunit within an2 80s complex obtained by docking homology models of the rna3 and proteins into an 8.7 a cryo-em map
16	d2nwwa1	Alignment		19.8	19	Fold: Proton glutamate symport protein Superfamily: Proton glutamate symport protein Family: Proton glutamate symport protein
17	cli84V_	Alignment		19.7	15	PDB header: contractile protein Chain: V: PDB Molecule: smooth muscle myosin heavy chain; PDBTitle: cryo-em structure of the heavy meromyosin subfragment of2 chicken gizzard smooth muscle myosin with regulatory light3 chain in the dephosphorylated state. only c alphas4 provided for regulatory light chain. only backbone atoms5 provided for s2 fragment.
18	c2dfsA_	Alignment		16.9	13	PDB header: contractile protein/transport protein Chain: A: PDB Molecule: myosin-5a; PDBTitle: 3-d structure of myosin-v inhibited state
19	c3iz5T_	Alignment		15.7	14	PDB header: ribosome Chain: T: PDB Molecule: 60s ribosomal protein l19 (l19e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
20	c3h36A_	Alignment		15.4	12	PDB header: transferase Chain: A: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: structure of an uncharacterized domain in polyribonucleotide2 nucleotidyltransferase from streptococcus mutans ua159
21	d2c0sa1	Alignment	not modelled	14.0	15	Fold: ROP-like Superfamily: BAS1536-like Family: BAS1536-like
22	c2v0pA_	Alignment	not modelled	13.7	8	PDB header: hydrolase inhibitor Chain: A: PDB Molecule: type 2a phosphatase-associated protein 42; PDBTitle: the structure of tap42 alpha4 subunit
23	c1y4eA_	Alignment	not modelled	13.3	24	PDB header: membrane protein Chain: A: PDB Molecule: sodium/hydrogen exchanger 1; PDBTitle: nmr structure of transmembrane segment iv of the nhe12 isoform of the na+/h+ exchanger
24	d2oqoa1	Alignment	not modelled	12.1	16	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: PBP transglycosylase domain-like
25	c3rl0j_	Alignment	not modelled	11.5	17	PDB header: membrane protein/exocytosis Chain: J: PDB Molecule: syntaxin-1a; PDBTitle: truncated snare complex with complexin (p1)
26	d1rkla_	Alignment	not modelled	11.2	21	Fold: Single transmembrane helix Superfamily: Oligosaccharyltransferase subunit ost4p Family: Oligosaccharyltransferase subunit ost4p
27	d2bzba1	Alignment	not modelled	10.5	22	Fold: ROP-like Superfamily: BAS1536-like Family: BAS1536-like
28	c3layF_	Alignment	not modelled	9.9	19	PDB header: metal binding protein Chain: F: PDB Molecule: zinc resistance-associated protein; PDBTitle: alpha-helical barrel formed by the decamer of the zinc resistance-2 associated protein (stm4172) from salmonella enterica subsp. enterica3 serovar typhimurium str. lt2 PDB header: membrane protein

29	c1kiIE	Alignment	not modelled	9.7	14	Chain: E: PDB Molecule: complexin i snare-complex binding region; PDBTitle: three-dimensional structure of the complexin/snare complex
30	d1jkva	Alignment	not modelled	9.4	24	Fold: Ferritin-like Superfamily: Ferritin-like Family: Manganese catalase (T-catalase)
31	c2l2IA	Alignment	not modelled	9.4	32	PDB header: transferase Chain: A: PDB Molecule: transcriptional repressor p66-alpha; PDBTitle: solution structure of the coiled-coil complex between mbd2 and2 p66alpha
32	c2akfA	Alignment	not modelled	9.3	42	PDB header: protein binding Chain: A: PDB Molecule: coronin-1a; PDBTitle: crystal structure of the coiled-coil domain of coronin 1
33	c2akfC	Alignment	not modelled	9.3	42	PDB header: protein binding Chain: C: PDB Molecule: coronin-1a; PDBTitle: crystal structure of the coiled-coil domain of coronin 1
34	c2akfB	Alignment	not modelled	9.3	42	PDB header: protein binding Chain: B: PDB Molecule: coronin-1a; PDBTitle: crystal structure of the coiled-coil domain of coronin 1
35	c3fliH	Alignment	not modelled	9.2	18	PDB header: protein binding Chain: H: PDB Molecule: hepatocyte growth factor-regulated tyrosine kinase PDBTitle: human escrt-0 core complex
36	c2kncA	Alignment	not modelled	9.1	13	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iiB; PDBTitle: platelet integrin alfaIIB-beta3 transmembrane-cytoplasmic2 heterocomplex
37	c3lt7D	Alignment	not modelled	8.9	25	PDB header: cell adhesion Chain: D: PDB Molecule: adhesin yada; PDBTitle: a transition from strong right-handed to canonical left-handed2 supercoiling in a conserved coiled coil segment of trimeric3 autotransporter adhesins - the m3 mutant structure
38	c1ei3C	Alignment	not modelled	8.8	9	PDB header: PDB COMPND:
39	c1nh2D	Alignment	not modelled	8.7	21	PDB header: transcription/dna Chain: D: PDB Molecule: transcription initiation factor iia small chain; PDBTitle: crystal structure of a yeast tfiia/tbp/dna complex
40	c3dinD	Alignment	not modelled	8.7	25	PDB header: membrane protein, protein transport Chain: D: PDB Molecule: preprotein translocase subunit sece; PDBTitle: crystal structure of the protein-translocation complex formed by the2 secy channel and the seca atpase
41	d2olua1	Alignment	not modelled	8.6	16	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: PBP transglycosylase domain-like
42	c2pfmA	Alignment	not modelled	8.4	16	PDB header: lyase Chain: A: PDB Molecule: adenylosuccinate lyase; PDBTitle: crystal structure of adenylosuccinate lyase (purb) from bacillus2 anthracis
43	c2x7aB	Alignment	not modelled	8.0	27	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
44	d1v9va1	Alignment	not modelled	8.0	11	Fold: Bromodomain-like Superfamily: MAST3 pre-PK domain-like Family: MAST3 pre-PK domain-like
45	d2oeza1	Alignment	not modelled	8.0	20	Fold: YacF-like Superfamily: YacF-like Family: YacF-like
46	d1zk8a2	Alignment	not modelled	7.9	5	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
47	c3rkoF	Alignment	not modelled	7.9	16	PDB header: oxidoreductase Chain: F: PDB Molecule: nadh-quinone oxidoreductase subunit j; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
48	c2j9wB	Alignment	not modelled	7.9	22	PDB header: protein transport Chain: B: PDB Molecule: vps28-prov protein; PDBTitle: structural insight into the escrt-i-ii link and its role in2 mvb trafficking
49	c1y66D	Alignment	not modelled	7.7	27	PDB header: de novo protein Chain: D: PDB Molecule: engrailed homeodomain; PDBTitle: dioxane contributes to the altered conformation and2 oligomerization state of a designed engrailed homeodomain3 variant
50	d1c3ca	Alignment	not modelled	7.6	13	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
51	d2j9ua1	Alignment	not modelled	7.5	22	Fold: Four-helical up-and-down bundle Superfamily: VPS28 C-terminal domain-like Family: VPS28 C-terminal domain-like
52	d2fcwa1	Alignment	not modelled	7.4	18	Fold: RAP domain-like Superfamily: RAP domain-like Family: RAP domain
53	c2qc7A	Alignment	not modelled	7.4	24	PDB header: chaperone Chain: A: PDB Molecule: endoplasmic reticulum protein erp29; PDBTitle: crystal structure of the protein-disulfide isomerase related chaperone2 erp29
54	c1q90R	Alignment	not modelled	7.2	16	PDB header: photosynthesis Chain: R: PDB Molecule: cytochrome b6-f complex iron-sulfur subunit; PDBTitle: structure of the cytochrome b6f (plastohydroquinone : plastocyanin2 oxidoreductase) from chlamydomonas reinhardtii

55	d1q90r_	Alignment	not modelled	7.2	16	Fold: Single transmembrane helix Superfamily: ISP transmembrane anchor Family: ISP transmembrane anchor
56	c2qdqA_	Alignment	not modelled	7.2	18	PDB header: structural protein Chain: A: PDB Molecule: tal1n-1; PDBTitle: crystal structure of the talin dimerisation domain
57	c2yvxD_	Alignment	not modelled	7.1	8	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgte; PDBTitle: crystal structure of magnesium transporter mgte
58	c3no7A_	Alignment	not modelled	7.1	28	PDB header: dna binding protein Chain: A: PDB Molecule: putative plasmid related protein; PDBTitle: crystal structure of the centromere-binding protein parb from plasmid2 pcxc100
59	d1i0aa_	Alignment	not modelled	7.0	15	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
60	c1e3hA_	Alignment	not modelled	6.9	12	PDB header: polyribonucleotide transferase Chain: A: PDB Molecule: guanosine pentaphosphate synthetase; PDBTitle: semet derivative of streptomyces antibioticus pnpase/gpsi2 enzyme
61	c1oy8A_	Alignment	not modelled	6.8	13	PDB header: membrane protein Chain: A: PDB Molecule: acriflavine resistance protein b; PDBTitle: structural basis of multiple drug binding capacity of the acrb2 multidrug efflux pump
62	d1kx5c_	Alignment	not modelled	6.8	27	Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones
63	d1iwga8	Alignment	not modelled	6.7	7	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
64	d1nh2d1	Alignment	not modelled	6.7	18	Fold: Transcription factor IIA (TFIIA), alpha-helical domain Superfamily: Transcription factor IIA (TFIIA), alpha-helical domain Family: Transcription factor IIA (TFIIA), alpha-helical domain
65	d2p12a1	Alignment	not modelled	6.5	12	Fold: FomD barrel-like Superfamily: FomD-like Family: FomD-like
66	d2oi8a2	Alignment	not modelled	6.5	11	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
67	c3qh9A_	Alignment	not modelled	6.4	16	PDB header: structural protein Chain: A: PDB Molecule: liprin-beta-2; PDBTitle: human liprin-beta2 coiled-coil
68	c2e9fC_	Alignment	not modelled	6.3	24	PDB header: lyase Chain: C: PDB Molecule: argininosuccinate lyase; PDBTitle: crystal structure of t.th.hb8 argininosuccinate lyase complexed with2 l-arginine
69	c3zs9C_	Alignment	not modelled	6.3	21	PDB header: hydrolase/transport protein Chain: C: PDB Molecule: golgi to er traffic protein 2; PDBTitle: s. cerevisiae get3-adp-alf4- complex with a cytosolic get2 fragment
70	d1q90g_	Alignment	not modelled	6.3	18	Fold: Single transmembrane helix Superfamily: PetG subunit of the cytochrome b6f complex Family: PetG subunit of the cytochrome b6f complex
71	c1q90G_	Alignment	not modelled	6.3	18	PDB header: photosynthesis Chain: G: PDB Molecule: cytochrome b6f complex subunit petg; PDBTitle: structure of the cytochrome b6f (plastohydroquinone : plastocyanin2 oxidoreductase) from chlamydomonas reinhardtii
72	c3sjdE_	Alignment	not modelled	6.3	21	PDB header: hydrolase/transport protein Chain: E: PDB Molecule: golgi to er traffic protein 2; PDBTitle: crystal structure of s. cerevisiae get3 with bound adp-mg2+ in complex2 with get2 cytosolic domain
73	c3c8tA_	Alignment	not modelled	6.3	11	PDB header: lyase Chain: A: PDB Molecule: fumarate lyase; PDBTitle: crystal structure of fumarate lyase from mesorhizobium sp. bnc1
74	d1id3c_	Alignment	not modelled	6.3	27	Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones
75	d1eqza_	Alignment	not modelled	6.2	27	Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones
76	c2p90B_	Alignment	not modelled	6.2	14	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein cgl1923; PDBTitle: the crystal structure of a protein of unknown function from2 corynebacterium glutamicum atcc 13032
77	c2w6aB_	Alignment	not modelled	6.2	16	PDB header: signaling protein Chain: B: PDB Molecule: arf gtpase-activating protein git1; PDBTitle: x-ray structure of the dimeric git1 coiled-coil domain
78	d2ftua1	Alignment	not modelled	6.1	18	Fold: RAP domain-like Superfamily: RAP domain-like Family: RAP domain
79	c3q5dA_	Alignment	not modelled	6.1	12	PDB header: hydrolase Chain: A: PDB Molecule: atlastin-1; PDBTitle: crystal structure of human atlastin-1 (residues 1-447) bound to gdp,2 crystal form 1
80	d1invpd1	Alignment	not modelled	6.0	15	Fold: Transcription factor IIA (TFIIA), alpha-helical domain Superfamily: Transcription factor IIA (TFIIA), alpha-helical domain Family: Transcription factor IIA (TFIIA), alpha-helical domain
81	c1s5lL_	Alignment	not modelled	6.0	13	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center l protein; PDBTitle: architecture of the photosynthetic oxygen evolving center

82	c3a0bl_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of br-substituted photosystem ii complex
83	c3kziL_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of monomeric form of cyanobacterial photosystem ii
84	c3prqL_	Alignment	not modelled	6.0	13	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 1 of 2). this file contains first monomer of psii3 dimer
85	c3prriL_	Alignment	not modelled	6.0	13	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 2 of 2). this file contains second monomer of psii3 dimer
86	c3a0hl_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of i-substituted photosystem ii complex
87	c3arcL_	Alignment	not modelled	6.0	13	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution
88	c3a0hL_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of i-substituted photosystem ii complex
89	c3a0bL_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of br-substituted photosystem ii complex
90	c1s5li_	Alignment	not modelled	6.0	13	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center I protein; PDBTitle: architecture of the photosynthetic oxygen evolving center
91	c2axtl_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center I protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
92	c2axtl_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center I protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
93	c3bz2L_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 22 of 2). this file contains second monomer of psii dimer
94	c3bz1L_	Alignment	not modelled	6.0	13	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 12 of 2). this file contains first monomer of psii dimer
95	d2axtl1	Alignment	not modelled	6.0	13	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein L, PsbL Family: PsbL-like
96	c3epvB_	Alignment	not modelled	6.0	13	PDB header: metal binding protein Chain: B: PDB Molecule: nickel and cobalt resistance protein cnrr; PDBTitle: x-ray structure of the metal-sensor cnrx in both the apo- and copper-2 bound forms
97	d1q5na_	Alignment	not modelled	5.9	11	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
98	d1tj7a_	Alignment	not modelled	5.9	15	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
99	c3gaaB_	Alignment	not modelled	5.9	2	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein ta1441; PDBTitle: the crystal structure of the protein with unknown function from2 thermoplasma acidophilum