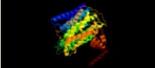
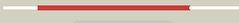
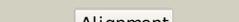
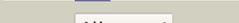
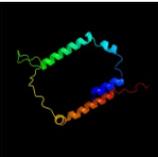
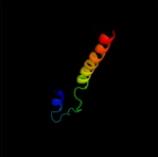


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P23482
Date	Thu Jan 5 11:39:28 GMT 2012
Unique Job ID	6534e195bb1f7092

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3rkoL_	 Alignment		100.0	23	PDB header: oxidoreductase Chain: L; PDB Molecule: nadh-quinone oxidoreductase subunit l; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
2	c3rkoM_	 Alignment		100.0	24	PDB header: oxidoreductase Chain: M; PDB Molecule: nadh-quinone oxidoreductase subunit m; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
3	c3rkoN_	 Alignment		100.0	19	PDB header: oxidoreductase Chain: N; PDB Molecule: nadh-quinone oxidoreductase subunit n; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
4	c3rkoK_	 Alignment		80.5	17	PDB header: oxidoreductase Chain: K; PDB Molecule: nadh-quinone oxidoreductase subunit k; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
5	d1a6qa1	 Alignment		31.6	11	Fold: Another 3-helical bundle Superfamily: Protein serine/threonine phosphatase 2C, C-terminal domain Family: Protein serine/threonine phosphatase 2C, C-terminal domain
6	c2l3ia_	 Alignment		28.2	50	PDB header: antimicrobial protein Chain: A; PDB Molecule: aoxki4a, antimicrobial peptide in spider venom; PDBTitle: oxki4a, spider derived antimicrobial peptide
7	d2gf4a1	 Alignment		18.7	23	Fold: immunoglobulin/albumin-binding domain-like Superfamily: Vng1086c-like Family: Vng1086c-like
8	d1o8bb1	 Alignment		17.2	17	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
9	d1s1qa_	 Alignment		15.3	31	Fold: UBC-like Superfamily: UBC-like Family: UEV domain
10	d1j4na_	 Alignment		15.1	17	Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like
11	c1ijjA_	 Alignment		13.5	20	PDB header: signaling protein Chain: A; PDB Molecule: erbb-2 receptor protein-tyrosine kinase; PDBTitle: solution structure of the neu/erbb-2 membrane spanning2 segment

12	c3rkoF_	Alignment		13.2	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
13	d2q7ra1	Alignment		12.8	11	Fold: MAPEG domain-like Superfamily: MAPEG domain-like Family: MAPEG domain
14	d1nekd_	Alignment		12.8	16	Fold: Heme-binding four-helical bundle Superfamily: Fumarate reductase respiratory complex transmembrane subunits Family: Succinate dehydrogenase/Fumarate reductase transmembrane subunits (SdhC/FrdC and SdhD/FrdD)
15	c3na2C_	Alignment		12.7	58	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein of unknown function from mine drainage2 metagenome leptospirillum rubarum
16	d2axti1	Alignment		12.6	7	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein I, Psbl Family: Psbl-like
17	d3d37a2	Alignment		12.4	57	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
18	d1lgha_	Alignment		12.2	29	Fold: Light-harvesting complex subunits Superfamily: Light-harvesting complex subunits Family: Light-harvesting complex subunits
19	d1n9wa2	Alignment		10.5	50	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
20	c1n9wA_	Alignment		10.4	50	PDB header: biosynthetic protein Chain: A: PDB Molecule: aspartyl-trna synthetase 2; PDBTitle: crystal structure of the non-discriminating and archaeal-2 type aspartyl-trna synthetase from thermus thermophilus
21	c2p64B_	Alignment	not modelled	10.4	26	PDB header: ligase Chain: B: PDB Molecule: f-box/wd repeat protein 1a; PDBTitle: d domain of b-trcp
22	c1r6rA_	Alignment	not modelled	10.0	30	PDB header: viral protein Chain: A: PDB Molecule: genome polyprotein; PDBTitle: solution structure of dengue virus capsid protein reveals a2 new fold
23	d1r6ra_	Alignment	not modelled	10.0	30	Fold: Flavivirus capsid protein C Superfamily: Flavivirus capsid protein C Family: Flavivirus capsid protein C
24	c3bjub_	Alignment	not modelled	9.6	38	PDB header: ligase Chain: B: PDB Molecule: lysyl-trna synthetase; PDBTitle: crystal structure of tetrameric form of human lysyl-trna2 synthetase
25	c3r24A_	Alignment	not modelled	9.5	33	PDB header: transferase, viral protein Chain: A: PDB Molecule: 2'-o-methyl transferase; PDBTitle: crystal structure of nsp10/nsp16 complex of sars coronavirus" if2 possible
26	c2voyK_	Alignment	not modelled	9.4	18	PDB header: hydrolase Chain: K: PDB Molecule: sarcoplasmic/endoplasmic reticulum calcium PDBTitle: cryoem model of copa, the copper transporting atpase from2 archaeoglobus fulgidus
27	c2kncA_	Alignment	not modelled	9.2	17	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iiib; PDBTitle: platelet integrin alfaiib-beta3 transmembrane-cytoplasmic2 heterocomplex
28	c2yvxD_	Alignment	not modelled	9.2	17	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgte; PDBTitle: crystal structure of magnesium transporter mgte

29	c3c25A	Alignment	not modelled	9.2	67	PDB header: hydrolase/dna Chain: A: PDB Molecule: noti restriction endonuclease; PDBTitle: crystal structure of noti restriction endonuclease bound to cognate2 dna
30	c1b8aB	Alignment	not modelled	9.2	50	PDB header: ligase Chain: B: PDB Molecule: protein (aspartyl-trna synthetase); PDBTitle: aspartyl-trna synthetase
31	d1bcce2	Alignment	not modelled	9.1	8	Fold: Single transmembrane helix Superfamily: ISP transmembrane anchor Family: ISP transmembrane anchor
32	c2pjmA	Alignment	not modelled	9.0	31	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: structure of ribose 5-phosphate isomerase a from2 methanocaldococcus jannaschii
33	d1fftb2	Alignment	not modelled	9.0	9	Fold: Transmembrane helix hairpin Superfamily: Cytochrome c oxidase subunit II-like, transmembrane region Family: Cytochrome c oxidase subunit II-like, transmembrane region
34	c1wydB	Alignment	not modelled	9.0	50	PDB header: ligase Chain: B: PDB Molecule: hypothetical aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from sulfobolus tokodaii
35	c3rpfC	Alignment	not modelled	8.7	50	PDB header: transferase Chain: C: PDB Molecule: molybdopterin converting factor, subunit 1 (moad); PDBTitle: protein-protein complex of subunit 1 and 2 of molybdopterin-converting2 factor from helicobacter pylori 26695
36	c2xgtB	Alignment	not modelled	8.6	25	PDB header: ligase Chain: B: PDB Molecule: asparaginyl-trna synthetase, cytoplasmic; PDBTitle: asparaginyl-trna synthetase from brugia malayi complexed2 with the sulphamoyl analogue of asparaginyl-adenylate
37	d2f05a1	Alignment	not modelled	8.5	33	Fold: PAH2 domain Superfamily: PAH2 domain Family: PAH2 domain
38	c2hg5D	Alignment	not modelled	8.4	13	PDB header: membrane protein Chain: D: PDB Molecule: kcsa channel; PDBTitle: cs+ complex of a k channel with an amide to ester substitution in the2 selectivity filter
39	c1x55A	Alignment	not modelled	8.4	38	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase; PDBTitle: crystal structure of asparaginyl-trna synthetase from pyrococcus2 horikoshii complexed with asparaginyl-adenylate analogue
40	d2uuia1	Alignment	not modelled	8.4	12	Fold: MAPEG domain-like Superfamily: MAPEG domain-like Family: MAPEG domain
41	c2pnoL	Alignment	not modelled	8.4	12	PDB header: lyase Chain: L: PDB Molecule: leukotriene c4 synthase; PDBTitle: crystal structure of human leukotriene c4 synthase
42	c2p63D	Alignment	not modelled	8.3	33	PDB header: cell cycle Chain: D: PDB Molecule: cell division control protein 4; PDBTitle: suprafacial orientation of the scfdc4 dimer accommodates multiple2 geometries for substrate ubiquitination
43	c1asyA	Alignment	not modelled	8.3	38	PDB header: complex (aminoacyl-trna synthase/trna) Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: class ii aminoacyl transfer rna synthetases: crystal2 structure of yeast aspartyl-trna synthetase complexed with3 trna asp
44	c1e22A	Alignment	not modelled	8.1	38	PDB header: ligase Chain: A: PDB Molecule: lysyl-trna synthetase; PDBTitle: lysyl-trna synthetase (lysu) hexagonal form complexed with2 lysine and the non-hydrolysable atp analogue amp-pcp
45	c2bg9B	Alignment	not modelled	8.0	12	PDB header: ion channel/receptor Chain: B: PDB Molecule: acetylcholine receptor protein, beta chain; PDBTitle: refined structure of the nicotinic acetylcholine receptor2 at 4a resolution.
46	c4a1cK	Alignment	not modelled	7.9	27	PDB header: ribosome Chain: K: PDB Molecule: 60s ribosomal protein l27a; 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.
47	d1ppje2	Alignment	not modelled	7.9	11	Fold: Single transmembrane helix Superfamily: ISP transmembrane anchor Family: ISP transmembrane anchor
48	c3gm1A	Alignment	not modelled	7.8	12	PDB header: transferase Chain: A: PDB Molecule: protein tyrosine kinase 2 beta; PDBTitle: crystal structure of the focal adhesion targeting (fat)2 domain of pyk2 in complex with paxillin ld4 motif-derived3 peptides
49	c3m4qA	Alignment	not modelled	7.6	25	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase, putative; PDBTitle: entamoeba histolytica asparaginyl-trna synthetase (asnrs)
50	c2kwtA	Alignment	not modelled	7.6	30	PDB header: viral protein Chain: A: PDB Molecule: protease ns2-3; PDBTitle: solution structure of ns2 [27-59]
51	c1efwA	Alignment	not modelled	7.6	38	PDB header: ligase/rna Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from thermus2 thermophilus complexed to trnaasp from escherichia coli
52	d1h2sb	Alignment	not modelled	7.6	27	Fold: Transmembrane helix hairpin Superfamily: Htr2 transmembrane domain-like Family: Htr2 transmembrane domain-like

53	c1h2sB	Alignment	not modelled	7.6	27	PDB header: membrane protein Chain: B: PDB Molecule: sensory rhodopsin ii transducer; PDBTitle: molecular basis of transmembrane signalling by sensory2 rhodopsin ii-transducer complex
54	c3swyB	Alignment	not modelled	7.5	25	PDB header: transport protein Chain: B: PDB Molecule: cyclic nucleotide-gated cation channel alpha-3; PDBTitle: cnga3 626-672 containing clz domain
55	c2ojmA	Alignment	not modelled	7.5	22	PDB header: antimicrobial protein Chain: A: PDB Molecule: moronecin; PDBTitle: solution structure and cell selectivity of piscidin 1 and2 its analogues
56	d1k04a	Alignment	not modelled	7.4	9	Fold: Four-helical up-and-down bundle Superfamily: FAT domain of focal adhesion kinase Family: FAT domain of focal adhesion kinase
57	c3mesB	Alignment	not modelled	7.3	46	PDB header: transferase Chain: B: PDB Molecule: choline kinase; PDBTitle: crystal structure of choline kinase from cryptosporidium2 parvum iowa ii, cgd3_2030
58	c3kdpG	Alignment	not modelled	7.3	52	PDB header: hydrolase Chain: G: PDB Molecule: na+/k+ atpase gamma subunit transcript variant a; PDBTitle: crystal structure of the sodium-potassium pump
59	c3kdpH	Alignment	not modelled	7.3	52	PDB header: hydrolase Chain: H: PDB Molecule: na+/k+ atpase gamma subunit transcript variant a; PDBTitle: crystal structure of the sodium-potassium pump
60	c3e9hB	Alignment	not modelled	7.2	38	PDB header: ligase Chain: B: PDB Molecule: lysyl-trna synthetase; PDBTitle: lysyl-trna synthetase from bacillus stearotherophilus2 complexed with l-lysylsulfamoyl adenosine
61	c2uwjG	Alignment	not modelled	7.2	32	PDB header: chaperone Chain: G: PDB Molecule: type iii export protein pscg; PDBTitle: structure of the heterotrimeric complex which regulates2 type iii secretion needle formation
62	c2kseA	Alignment	not modelled	7.1	13	PDB header: transferase Chain: A: PDB Molecule: sensor protein qsec; PDBTitle: backbone structure of the membrane domain of e. coli2 histidine kinase receptor qsec, center for structures of3 membrane proteins (csm) target 4311c
63	d1oqwa	Alignment	not modelled	7.1	28	Fold: Pili subunits Superfamily: Pili subunits Family: Pilin
64	c1uj6A	Alignment	not modelled	7.1	19	PDB header: isomerase Chain: A: PDB Molecule: ribose 5-phosphate isomerase; PDBTitle: crystal structure of thermus thermophilus ribose-5-phosphate isomerase2 complexed with arabinose-5-phosphate
65	c2bg9A	Alignment	not modelled	7.0	10	PDB header: ion channel/receptor Chain: A: PDB Molecule: acetylcholine receptor protein, alpha chain; PDBTitle: refined structure of the nicotinic acetylcholine receptor2 at 4a resolution.
66	c1ceuA	Alignment	not modelled	7.0	17	PDB header: viral protein Chain: A: PDB Molecule: protein (hiv-1 regulatory protein n-terminal PDBTitle: nmr structure of the (1-51) n-terminal domain of the hiv-12 regulatory protein
67	c3kwmC	Alignment	not modelled	6.9	19	PDB header: isomerase Chain: C: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: crystal structure of ribose-5-isomerase a
68	d2qam31	Alignment	not modelled	6.8	9	Fold: L35p-like Superfamily: L35p-like Family: Ribosomal protein L35p
69	c3cu4A	Alignment	not modelled	6.8	8	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: omcf, outer membrane cytochrome f from geobacter2 sulfurreducens
70	d1zvpa1	Alignment	not modelled	6.8	22	Fold: Ferredoxin-like Superfamily: ACT-like Family: VC0802-like
71	d1unca	Alignment	not modelled	6.8	21	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
72	d1by9a	Alignment	not modelled	6.8	43	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
73	c2y0nE	Alignment	not modelled	6.6	29	PDB header: transcription Chain: E: PDB Molecule: male-specific lethal 1 homolog; PDBTitle: crystal structure of the complex between dosage2 compensation factors msl1 and msl3
74	d1vzva	Alignment	not modelled	6.6	33	Fold: Herpes virus serine proteinase, assemblin Superfamily: Herpes virus serine proteinase, assemblin Family: Herpes virus serine proteinase, assemblin
75	d1l0wa3	Alignment	not modelled	6.5	38	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
76	d1sfkb	Alignment	not modelled	6.5	22	Fold: Flavivirus capsid protein C Superfamily: Flavivirus capsid protein C Family: Flavivirus capsid protein C
77	c2qieB	Alignment	not modelled	6.5	67	PDB header: transferase Chain: B: PDB Molecule: molybdopterin synthase small subunit; PDBTitle: staphylococcus aureus molybdopterin synthase in complex2 with precursor z
78	c1m93A	Alignment	not modelled	6.5	4	PDB header: viral protein Chain: A: PDB Molecule: serine proteinase inhibitor 2;

						PDBTitle: 1.65 a structure of cleaved viral serpin crma
79	d1b8aa2	Alignment	not modelled	6.4	50	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
80	d1c0aa3	Alignment	not modelled	6.4	38	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
81	d1unda	Alignment	not modelled	6.4	14	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
82	d1ubdc4	Alignment	not modelled	6.3	67	Fold: beta-beta-alpha zinc fingers Superfamily: beta-beta-alpha zinc fingers Family: Classic zinc finger, C2H2
83	c2eiuE	Alignment	not modelled	6.3	67	PDB header: structural genomics, unknown function Chain: E: PDB Molecule: hypothetical protein aq_1627; PDBTitle: crystal structure of a putative protein (aq1627) from aquifex aeolicus
84	d3cx5c2	Alignment	not modelled	6.3	7	Fold: Heme-binding four-helical bundle Superfamily: Transmembrane di-heme cytochromes Family: Cytochrome b of cytochrome bc1 complex (Ubiquinol-cytochrome c reductase)
85	c1lkzB	Alignment	not modelled	6.2	20	PDB header: isomerase Chain: B: PDB Molecule: ribose 5-phosphate isomerase a; PDBTitle: crystal structure of d-ribose-5-phosphate isomerase (rpia)2 from escherichia coli.
86	c2jttD	Alignment	not modelled	6.2	38	PDB header: calcium binding protein/antitumor protei Chain: D: PDB Molecule: calcyclin-binding protein; PDBTitle: solution structure of calcium loaded s100a6 bound to c-2 terminal siah-1 interacting protein
87	c1eqrC	Alignment	not modelled	6.2	38	PDB header: ligase Chain: C: PDB Molecule: aspartyl-trna synthetase; PDBTitle: crystal structure of free aspartyl-trna synthetase from2 escherichia coli
88	c2hfva	Alignment	not modelled	6.2	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein rpa1041; PDBTitle: solution nmr structure of protein rpa1041 from pseudomonas2 aeruginosa. northeast structural genomics consortium3 target pat90.
89	d2hfva1	Alignment	not modelled	6.2	14	Fold: Ferredoxin-like Superfamily: GlnB-like Family: RPA1041-like
90	c1w3zA	Alignment	not modelled	6.2	45	PDB header: complement regulator Chain: A: PDB Molecule: bbcrasp-1; PDBTitle: semet derivative of bbcrasp-1 from borrelia burgdorferi
91	d1fm0d	Alignment	not modelled	6.2	50	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/This Family: MoaD
92	c3oqvA	Alignment	not modelled	6.2	22	PDB header: protein binding Chain: A: PDB Molecule: albc; PDBTitle: albc, a cyclodipeptide synthase from streptomyces noursei
93	d1eova2	Alignment	not modelled	6.2	38	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
94	d1yu8x1	Alignment	not modelled	6.2	22	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
95	c1zpoD	Alignment	not modelled	6.2	20	PDB header: oxidoreductase Chain: D: PDB Molecule: small cytochrome binding protein; PDBTitle: crystal structure of mitochondrial respiratory complex ii2 bound with 3-nitropropionate and 2-thenoyltrifluoroacetone
96	c3i7fA	Alignment	not modelled	6.2	25	PDB header: ligase Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: aspartyl trna synthetase from entamoeba histolytica
97	c2lkjA	Alignment	not modelled	6.2	13	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-m; PDBTitle: structures and interaction analyses of the integrin alpha-m beta-22 cytoplasmic tails
98	d1r89a1	Alignment	not modelled	6.1	15	Fold: PAP/OAS1 substrate-binding domain Superfamily: PAP/OAS1 substrate-binding domain Family: Archaeal tRNA CCA-adding enzyme substrate-binding domain
99	d1iega	Alignment	not modelled	6.1	14	Fold: Herpes virus serine proteinase, assemblin Superfamily: Herpes virus serine proteinase, assemblin Family: Herpes virus serine proteinase, assemblin