






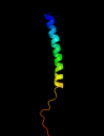







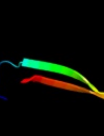



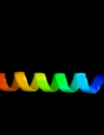







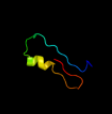







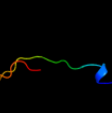



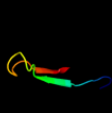






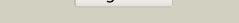


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P40120
Date	Thu Jan 5 12:01:11 GMT 2012
Unique Job ID	6ccdd1af2a472a65

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1txkA_	 Alignment		100.0	36	PDB header: biosynthetic protein Chain: A: PDB Molecule: glucans biosynthesis protein g; PDBTitle: crystal structure of escherichia coli opgg
2	d1txka2	 Alignment		100.0	41	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: MdoG-like
3	d1txka1	 Alignment		100.0	24	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
4	c2e76D_	 Alignment		53.0	11	PDB header: photosynthesis Chain: D: PDB Molecule: cytochrome b6-f complex iron-sulfur subunit; PDBTitle: crystal structure of the cytochrome b6f complex with tridecyl-2 stigmatellin (tds) from m.laminosus
5	c2r5oA_	 Alignment		44.6	14	PDB header: transport protein Chain: A: PDB Molecule: putative atp binding component of abc- PDBTitle: crystal structure of the c-terminal domain of wzt
6	d1nkra1	 Alignment		21.4	44	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
7	d2d7na1	 Alignment		20.6	15	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Filamin repeat (rod domain)
8	d2jnaa1	 Alignment		20.4	17	Fold: Dodecin subunit-like Superfamily: YdgH-like Family: YdgH-like
9	d2noca1	 Alignment		19.6	14	Fold: Dodecin subunit-like Superfamily: YdgH-like Family: YdgH-like
10	c1p84E_	 Alignment		18.5	9	PDB header: oxidoreductase Chain: E: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur PDBTitle: hdbt inhibited yeast cytochrome bc1 complex
11	c1se9A_	 Alignment		17.8	14	PDB header: plant protein Chain: A: PDB Molecule: ubiquitin family; PDBTitle: structure of at3g01050, a ubiquitin-fold protein from2 arabidopsis thaliana

12	dlse9a_	 Alignment		17.8	14	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ubiquitin-related
13	c3on7C_	 Alignment		17.4	17	PDB header: oxidoreductase Chain: C: PDB Molecule: oxidoreductase, iron/ascorbate family; PDBTitle: crystal structure of a putative oxygenase (so_2589) from shewanella2 oneidensis at 2.20 a resolution
14	c3rhfB_	 Alignment		17.2	13	PDB header: transferase Chain: B: PDB Molecule: putative polyphosphate kinase 2 family protein; PDBTitle: crystal structure of polyphosphate kinase 2 from arthrobacter2 aurescens tc1
15	c2l6mA_	 Alignment		16.5	38	PDB header: hydrolase Chain: A: PDB Molecule: protein dicer; PDBTitle: structure of c-terminal dsrbd of the fission yeast dicer (dcr1)
16	d1oisa_	 Alignment		15.6	24	Fold: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment Superfamily: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment Family: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment
17	d1jmx5	 Alignment		15.3	13	Fold: Streptavidin-like Superfamily: Quinohemoprotein amine dehydrogenase A chain, domain 3 Family: Quinohemoprotein amine dehydrogenase A chain, domain 3
18	c2r3aA_	 Alignment		15.0	17	PDB header: transferase Chain: A: PDB Molecule: histone-lysine n-methyltransferase suv39h2; PDBTitle: methyltransferase domain of human suppressor of variegation2 3-9 homolog 2
19	d2dl2a1	 Alignment		15.0	40	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
20	d1xbwa_	 Alignment		13.7	32	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: PG130-like
21	c3r0eC_	 Alignment	not modelled	12.8	16	PDB header: sugar binding protein Chain: C: PDB Molecule: lectin; PDBTitle: structure of remusatia vivipara lectin
22	c3ooxA_	 Alignment	not modelled	12.1	21	PDB header: oxidoreductase Chain: A: PDB Molecule: putative 2og-fe(ii) oxygenase family protein; PDBTitle: crystal structure of a putative 2og-fe(ii) oxygenase family protein2 (cc_0200) from caulobacter crescentus at 1.44 a resolution
23	d1dmla1	 Alignment	not modelled	11.9	26	Fold: DNA clamp Superfamily: DNA clamp Family: DNA polymerase processivity factor
24	c3exmA_	 Alignment	not modelled	11.7	24	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase sc4828; PDBTitle: crystal structure of the phosphatase sc4828 with the non-hydrolyzable2 nucleotide gpcp
25	c2l3bA_	 Alignment	not modelled	11.6	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein found in conjugate transposon; PDBTitle: solution nmr structure of the bt_0084 lipoprotein from bacteroides2 thetaiotaomicron, northeast structural genomics consortium target3 btr376
26	d1k4ta3	 Alignment	not modelled	11.4	24	Fold: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment Superfamily: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment Family: Eukaryotic DNA topoisomerase I, N-terminal DNA-binding fragment
27	c2l1jA_	 Alignment	not modelled	11.4	35	PDB header: cell adhesion, membrane protein Chain: A: PDB Molecule: moesin; PDBTitle: moesin from spodoptera frugiperda at 2.1 angstroms

						resolution
28	c2fynO_	Alignment	not modelled	11.3	17	PDB header: oxidoreductase Chain: O: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur PDBTitle: crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex
29	c2l7qA_	Alignment	not modelled	11.3	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein found in conjugate transposon; PDBTitle: solution nmr structure of conjugate transposon protein buu_1572(27-2 141) from bacteroides vulgatus, northeast structural genomics3 consortium target bvr155
30	dlee8a2_	Alignment	not modelled	11.3	22	Fold: N-terminal domain of MutM-like DNA repair proteins Superfamily: N-terminal domain of MutM-like DNA repair proteins Family: N-terminal domain of MutM-like DNA repair proteins
31	dlcsya_	Alignment	not modelled	11.0	18	Fold: SH2-like Superfamily: SH2 domain Family: SH2 domain
32	c2fyuE_	Alignment	not modelled	10.8	22	PDB header: oxidoreductase Chain: E: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur subunit, PDBTitle: crystal structure of bovine heart mitochondrial bc1 with jg1442 inhibitor
33	dlqcsa1_	Alignment	not modelled	10.2	43	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Cdc48 N-terminal domain-like
34	c3phuA_	Alignment	not modelled	10.2	9	PDB header: hydrolase Chain: A: PDB Molecule: rna-directed rna polymerase I; PDBTitle: otu domain of crimean congo hemorrhagic fever virus
35	dlix2a_	Alignment	not modelled	9.8	50	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Copper resistance protein C (CopC, PcoC)
36	dlml9a_	Alignment	not modelled	9.4	13	Fold: beta-clip Superfamily: SET domain Family: Histone lysine methyltransferases
37	c2p8zS_	Alignment	not modelled	9.3	56	PDB header: translation Chain: S: PDB Molecule: elongation factor tu-b; PDBTitle: fitted structure of adpr-eef2 in the 80s:adpr-2 eef2:gdpnp:sordarin cryo-em reconstruction
38	dlerna1_	Alignment	not modelled	9.2	34	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
39	dlh95a_	Alignment	not modelled	9.2	22	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
40	dle09a_	Alignment	not modelled	9.1	23	Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
41	dlp1la_	Alignment	not modelled	9.0	40	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
42	dlja1a3_	Alignment	not modelled	9.0	44	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: NADPH-cytochrome p450 reductase-like
43	c3d3zA_	Alignment	not modelled	8.9	27	PDB header: hydrolase Chain: A: PDB Molecule: actbind; PDBTitle: crystal structure of actbind a t2 rnase
44	c3o0lB_	Alignment	not modelled	8.7	22	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a pfam duf1425 family member (shew_1734) from2 shewanella sp. pv-4 at 1.81 a resolution
45	c3camB_	Alignment	not modelled	8.7	56	PDB header: gene regulation Chain: B: PDB Molecule: cold-shock domain family protein; PDBTitle: crystal structure of the cold shock domain protein from neisseria2 meningitidis
46	dla8pa2_	Alignment	not modelled	8.6	44	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
47	dlfdra2_	Alignment	not modelled	8.5	33	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
48	cla31A_	Alignment	not modelled	8.4	24	PDB header: isomerase/dna Chain: A: PDB Molecule: protein (topoisomerase i); PDBTitle: human reconstituted dna topoisomerase i in covalent complex2 with a 22 base pair dna duplex
49	c1dmlG_	Alignment	not modelled	8.4	26	PDB header: dna binding protein/transferase Chain: G: PDB Molecule: dna polymerase processivity factor; PDBTitle: crystal structure of herpes simplex ul42 bound to the c-2 terminus of hsv pol
50	dl dq3a3_	Alignment	not modelled	8.2	40	Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Intein endonuclease
51	c3adyA_	Alignment	not modelled	8.2	29	PDB header: proton transport Chain: A: PDB Molecule: dotd; PDBTitle: crystal structure of dotd from legionella
52	dlefla2_	Alignment	not modelled	8.2	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
53	c3nezA_	Alignment	not modelled	8.1	22	PDB header: fluorescent protein Chain: A: PDB Molecule: mrojoa;

					PDBTitle: mrojoa
54	d1kr4a_	Alignment	not modelled	7.9	10 Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
55	d1b2pa_	Alignment	not modelled	7.9	19 Fold: beta-Prism II Superfamily: alpha-D-mannose-specific plant lectins Family: alpha-D-mannose-specific plant lectins
56	c1ckwA_	Alignment	not modelled	7.8	12 PDB header: metal transport Chain: A: PDB Molecule: protein (cystic fibrosis transmembrane PDBTitle: cystic fibrosis transmembrane conductance regulator:2 solution structures of peptides based on the phe508 region,3 the most common site of disease-causing delta-f508 mutation
57	c1nh3A_	Alignment	not modelled	7.8	24 PDB header: isomerase/dna Chain: A: PDB Molecule: dna topoisomerase i; PDBTitle: human topoisomerase i ara-c complex
58	c2rocB_	Alignment	not modelled	7.8	33 PDB header: apoptosis Chain: B: PDB Molecule: bcl-2-binding component 3; PDBTitle: solution structure of mcl-1 complexed with puma
59	d1f20a2	Alignment	not modelled	7.8	56 Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: NADPH-cytochrome p450 reductase-like
60	d2ozga1	Alignment	not modelled	7.7	26 Fold: SCP-like Superfamily: SCP-like Family: EF1021 C-terminal domain-like
61	d1oqla_	Alignment	not modelled	7.7	16 Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Hypothetical protein YesU
62	d1lukua_	Alignment	not modelled	7.6	0 Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
63	d1pjca1	Alignment	not modelled	7.6	11 Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
64	d2oqla2	Alignment	not modelled	7.5	9 Fold: SH2-like Superfamily: SH2 domain Family: SH2 domain
65	c2k7pA_	Alignment	not modelled	7.5	18 PDB header: structural protein Chain: A: PDB Molecule: filamin-a; PDBTitle: filamin a ig-like domains 16-17
66	d2a5yb1	Alignment	not modelled	7.5	47 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: CED-4 C-terminal domain-like
67	c2qsdB_	Alignment	not modelled	7.5	19 PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized conserved protein; PDBTitle: crystal structure of a protein il1583 from idiomarina loihensis
68	d1kbia1	Alignment	not modelled	7.4	16 Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
69	c3czpA_	Alignment	not modelled	7.4	21 PDB header: transferase Chain: A: PDB Molecule: putative polyphosphate kinase 2; PDBTitle: crystal structure of putative polyphosphate kinase 2 from pseudomonas2 aeruginosa pa01
70	c2ns2A_	Alignment	not modelled	7.3	29 PDB header: cell cycle Chain: A: PDB Molecule: spindlin-1; PDBTitle: crystal structure of spindlin1
71	d1ddga2	Alignment	not modelled	7.3	44 Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: NADPH-cytochrome p450 reductase-like
72	c2wclA_	Alignment	not modelled	7.3	36 PDB header: transport protein Chain: A: PDB Molecule: general odorant-binding protein 1; PDBTitle: structure of bmo1 gobp2 (general odorant binding protein 2)2 with (8e,10z)-hexadecadien-1-ol
73	d1p7hl1	Alignment	not modelled	7.3	22 Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: NF-kappa-B/REL/DORSAL transcription factors, C-terminal domain
74	c2kl5A_	Alignment	not modelled	7.3	36 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein yutd; PDBTitle: solution nmr structure of protein yutd from b.subtilis, northeast2 structural genomics consortium target sr232
75	c3a0jB_	Alignment	not modelled	7.2	33 PDB header: transcription Chain: B: PDB Molecule: cold shock protein; PDBTitle: crystal structure of cold shock protein 1 from thermus2 thermophilus hb8
76	c2b9sA_	Alignment	not modelled	7.2	29 PDB header: isomerase/dna Chain: A: PDB Molecule: topoisomerase i-like protein; PDBTitle: crystal structure of heterodimeric I. donovani2 topoisomerase i-vanadate-dna complex
77	d1d6za3	Alignment	not modelled	7.2	17 Fold: Cystatin-like Superfamily: Amine oxidase N-terminal region Family: Amine oxidase N-terminal region
78	d1imhc1	Alignment	not modelled	7.1	21 Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: NF-kappa-B/REL/DORSAL transcription factors, C-terminal domain
79	d1dlpa2	Alignment	not modelled	7.1	24 Fold: beta-Prism II Superfamily: alpha-D-mannose-specific plant lectins Family: alpha-D-mannose-specific plant lectins
					Fold: Immunoglobulin-like beta-sandwich

80	dlnkra2	Alignment	not modelled	7.0	50	Superfamily: Immunoglobulin Family: I set domains
81	c1wrgA	Alignment	not modelled	6.8	80	PDB header: membrane protein Chain: A: PDB Molecule: light-harvesting protein b-880, beta chain; PDBTitle: light-harvesting complex 1 beta subunit from wild-type2 rhodospirillum rubrum
82	c1ibtC	Alignment	not modelled	6.8	23	PDB header: lyase Chain: C: PDB Molecule: histidine decarboxylase beta chain; PDBTitle: structure of the d53,54n mutant of histidine decarboxylase at-170 c
83	c3r2nC	Alignment	not modelled	6.7	16	PDB header: hydrolase Chain: C: PDB Molecule: cytidine deaminase; PDBTitle: crystal structure of cytidine deaminase from mycobacterium leprae
84	c2jp2A	Alignment	not modelled	6.7	13	PDB header: signaling protein Chain: A: PDB Molecule: sprouty-related, evh1 domain-containing protein PDBTitle: solution structure and resonance assignment of the n-2 terminal evh1 domain from the human spread2 protein3 (sprouty-related protein with evh1 domain isoform 2)
85	d2bk0a1	Alignment	not modelled	6.7	27	Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
86	d1kfia4	Alignment	not modelled	6.6	21	Fold: TBP-like Superfamily: Phosphoglucomutase, C-terminal domain Family: Phosphoglucomutase, C-terminal domain
87	d1my7a	Alignment	not modelled	6.6	32	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: NF-kappa-B/REL/DORSAL transcription factors, C-terminal domain
88	c1megA	Alignment	not modelled	6.6	56	PDB header: viral protein Chain: A: PDB Molecule: exterior membrane glycoprotein (gp120); PDBTitle: hiv gp120 c5
89	d2k54a1	Alignment	not modelled	6.6	14	Fold: Cystatin-like Superfamily: NTF2-like Family: Atu0742-like
90	c2eiuE	Alignment	not modelled	6.6	31	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
91	c1ckxA	Alignment	not modelled	6.6	10	PDB header: metal transport Chain: A: PDB Molecule: cystic fibrosis transmembrane conductance PDBTitle: cystic fibrosis transmembrane conductance regulator:2 solution structures of peptides based on the phe508 region,3 the most common site of disease-causing delta-f508 mutation
92	d1h4ra2	Alignment	not modelled	6.6	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
93	c2kvhA	Alignment	not modelled	6.5	63	PDB header: transcription Chain: A: PDB Molecule: zinc finger and btb domain-containing protein 32; PDBTitle: structure of the three-cys2his2 domain of mouse testis zinc2 finger protein
94	c2a48A	Alignment	not modelled	6.5	20	PDB header: luminescent protein Chain: A: PDB Molecule: gfp-like fluorescent chromoprotein amfp486; PDBTitle: crystal structure of amfp486 e150q
95	d1m4ka2	Alignment	not modelled	6.5	50	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
96	c3pt2A	Alignment	not modelled	6.5	11	PDB header: hydrolase/protein binding Chain: A: PDB Molecule: rna polymerase; PDBTitle: structure of a viral otu domain protease bound to ubiquitin
97	d1x9na2	Alignment	not modelled	6.4	33	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: DNA ligase/mRNA capping enzyme postcatalytic domain
98	d1gawa2	Alignment	not modelled	6.4	56	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
99	d1jb9a2	Alignment	not modelled	6.4	33	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases