




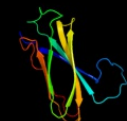

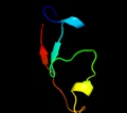

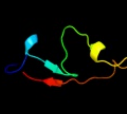









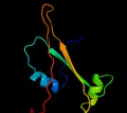

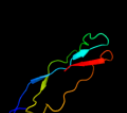
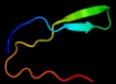





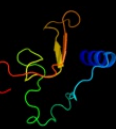




Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P33136
Date	Thu Jan 5 11:51:14 GMT 2012
Unique Job ID	b8a8486fee4c4a1

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1txkA_	 Alignment		100.0	98	PDB header: biosynthetic protein Chain: A: PDB Molecule: glucans biosynthesis protein g; PDBTitle: crystal structure of escherichia coli opgg
2	d1txka2	 Alignment		100.0	98	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: MdoG-like
3	d1txka1	 Alignment		100.0	97	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
4	c1se9A_	 Alignment		25.0	23	PDB header: plant protein Chain: A: PDB Molecule: ubiquitin family; PDBTitle: structure of at3g01050, a ubiquitin-fold protein from2 arabidopsis thaliana
5	d1se9a_	 Alignment		25.0	23	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ubiquitin-related
6	d2jnaa1	 Alignment		23.4	26	Fold: Dodecin subunit-like Superfamily: YdgH-like Family: YdgH-like
7	c3r0eC_	 Alignment		22.1	21	PDB header: sugar binding protein Chain: C: PDB Molecule: lectin; PDBTitle: structure of remusatia vivipara lectin
8	d2noca1	 Alignment		21.8	14	Fold: Dodecin subunit-like Superfamily: YdgH-like Family: YdgH-like
9	d1nkra1	 Alignment		21.3	33	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
10	c2r5oA_	 Alignment		21.1	19	PDB header: transport protein Chain: A: PDB Molecule: putative atp binding component of abc- PDBTitle: crystal structure of the c-terminal domain of wzt
11	c3o0lB_	 Alignment		17.9	7	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

12	c3on7C_	Alignment		17.0	21	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
13	c2l6mA_	Alignment		16.5	63	PDB header: hydrolase Chain: A: PDB Molecule: protein dicer; PDBTitle: structure of c-terminal dsrbd of the fission yeast dicer (dcr1)
14	dloq1a_	Alignment		16.3	15	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Hypothetical protein YesU
15	c2qsdB_	Alignment		16.2	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized conserved protein; PDBTitle: crystal structure of a protein il1583 from idiomarina loihiensis
16	d2dl2a1	Alignment		14.9	30	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
17	c2r3aA_	Alignment		14.7	21	PDB header: transferase Chain: A: PDB Molecule: histone-lysine n-methyltransferase suv39h2; PDBTitle: methyltransferase domain of human suppressor of variegation2 3-9 homolog 2
18	c3mpbA_	Alignment		14.6	15	PDB header: isomerase Chain: A: PDB Molecule: sugar isomerase; PDBTitle: z5688 from e. coli o157:h7 bound to fructose
19	c3rhfB_	Alignment		13.6	11	PDB header: transferase Chain: B: PDB Molecule: putative polyphosphate kinase 2 family protein; PDBTitle: crystal structure of polyphosphate kinase 2 from arthrobacter2 aurescens tc1
20	c2il1jA_	Alignment		12.7	35	PDB header: cell adhesion, membrane protein Chain: A: PDB Molecule: moesin; PDBTitle: moesin from spodoptera frugiperda at 2.1 angstroms resolution
21	d1ee8a2	Alignment	not modelled	12.1	28	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
22	d3ehwa1	Alignment	not modelled	11.7	21	Fold: beta-clip Superfamily: dUTPase-like Family: dUTPase-like
23	c3ooxA_	Alignment	not modelled	11.7	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
24	d2ozga1	Alignment	not modelled	11.1	20	Fold: SCP-like Superfamily: SCP-like Family: EF1021 C-terminal domain-like
25	d2k8ea1	Alignment	not modelled	10.7	19	Fold: YegP-like Superfamily: YegP-like Family: YegP-like
26	c3exmA_	Alignment	not modelled	10.7	17	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase sc4828; PDBTitle: crystal structure of the phosphatase sc4828 with the non-hydrolyzable2 nucleotide gpcp
27	c3f4fB_	Alignment	not modelled	10.3	17	PDB header: hydrolase Chain: B: PDB Molecule: deoxyuridine 5'-triphosphate nucleotidohydrolase; PDBTitle: crystal structure of dut1p, a dutpase from saccharomyces cerevisiae
28	d2k49a2	Alignment	not modelled	10.3	22	Fold: YegP-like Superfamily: YegP-like

					Family: YegP-like
29	d1p1la_	Alignment	not modelled	9.9	30 Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
30	c2l3bA_	Alignment	not modelled	9.8	31 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
31	d1qcsa1	Alignment	not modelled	9.8	57 Fold: Double psi beta-barrel Superfamily: ADC-like Family: Cdc48 N-terminal domain-like
32	c2p8zS_	Alignment	not modelled	9.8	67 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
33	dlix2a_	Alignment	not modelled	9.6	43 Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Copper resistance protein C (CopC, PcoC)
34	d1h95a_	Alignment	not modelled	9.5	33 Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
35	d1e09a_	Alignment	not modelled	9.5	13 Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
36	d1ef1a2	Alignment	not modelled	9.4	35 Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
37	d1ml9a_	Alignment	not modelled	9.2	17 Fold: beta-clip Superfamily: SET domain Family: Histone lysine methyltransferases
38	c3camB_	Alignment	not modelled	9.0	33 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
39	d1xbwa_	Alignment	not modelled	8.9	32 Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: PG130-like
40	c3ehwA_	Alignment	not modelled	8.8	20 PDB header: hydrolase Chain: A: PDB Molecule: dutp pyrophosphatase; PDBTitle: human dutpase in complex with alpha,beta-imido-dutp and mg2+:2 visualization of the full-length c-termini in all monomers and3 suggestion for an additional metal ion binding site
41	d1kr4a_	Alignment	not modelled	8.7	10 Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
42	d1kfia4	Alignment	not modelled	8.7	10 Fold: TBP-like Superfamily: Phosphoglucomutase, C-terminal domain Family: Phosphoglucomutase, C-terminal domain
43	d3bida1	Alignment	not modelled	8.6	14 Fold: YegP-like Superfamily: YegP-like Family: YegP-like
44	d1dq3a3	Alignment	not modelled	8.5	27 Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Intein endonuclease
45	d1svba1	Alignment	not modelled	8.4	26 Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Class II viral fusion proteins C-terminal domain
46	d1ukua_	Alignment	not modelled	8.4	0 Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
47	d1erna1	Alignment	not modelled	8.4	21 Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
48	d1ja1a3	Alignment	not modelled	8.4	33 Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: NADPH-cytochrome p450 reductase-like
49	d1pjca1	Alignment	not modelled	8.3	25 Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
50	d1b2pa_	Alignment	not modelled	8.3	21 Fold: beta-Prism II Superfamily: alpha-D-mannose-specific plant lectins Family: alpha-D-mannose-specific plant lectins
51	c3d3zA_	Alignment	not modelled	8.3	27 PDB header: hydrolase Chain: A: PDB Molecule: actbind; PDBTitle: crystal structure of actbind a t2 rnase
52	d1euwa_	Alignment	not modelled	8.1	20 Fold: beta-clip Superfamily: dUTPase-like Family: dUTPase-like
53	d1a8pa2	Alignment	not modelled	8.1	44 Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
54	d1fdra2	Alignment	not modelled	8.0	22 Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases

55	c2rocB_	Alignment	not modelled	7.9	44	PDB header: apoptosis Chain: B: PDB Molecule: bcl-2-binding component 3; PDBTitle: solution structure of mcl-1 complexed with puma
56	c2wclA_	Alignment	not modelled	7.6	29	PDB header: transport protein Chain: A: PDB Molecule: general odorant-binding protein 1; PDBTitle: structure of bmori gobp2 (general odorant binding protein 2)2 with (8e,10z)-hexadecadien-1-ol
57	d3pmga4	Alignment	not modelled	7.6	13	Fold: TBP-like Superfamily: Phosphoglucumutase, C-terminal domain Family: Phosphoglucumutase, C-terminal domain
58	d1y0ka1	Alignment	not modelled	7.5	24	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: PA4535-like
59	d1h4ra2	Alignment	not modelled	7.5	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
60	c3a0jB_	Alignment	not modelled	7.5	33	PDB header: transcription Chain: B: PDB Molecule: cold shock protein; PDBTitle: crystal structure of cold shock protein 1 from thermus2 thermophilus hb8
61	d2jn4a1	Alignment	not modelled	7.3	13	Fold: NifT/FixU barrel-like Superfamily: NifT/FixU-like Family: NifT/FixU
62	c2jn4A_	Alignment	not modelled	7.3	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein fixu, nift; PDBTitle: solution nmr structure of protein rp4601 from2 rhodopseudomonas palustris. northeast structural genomics3 consortium target rpt2; ontario center for structural4 proteomics target rp4601.
63	d1cga2	Alignment	not modelled	7.3	25	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: Starch-binding domain
64	d1f20a2	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
65	d1nkra2	Alignment	not modelled	7.2	38	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
66	c2l7ga_	Alignment	not modelled	7.2	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
67	d1ddga2	Alignment	not modelled	7.0	38	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: NADPH-cytochrome p450 reductase-like
68	c1meqA_	Alignment	not modelled	7.0	67	PDB header: viral protein Chain: A: PDB Molecule: exterior membrane glycoprotein (gp120); PDBTitle: hiv gp120 c5
69	c3oruA_	Alignment	not modelled	7.0	11	PDB header: metal binding protein Chain: A: PDB Molecule: duf1989 family protein; PDBTitle: crystal structure of a duf1989 family protein (tm1040_0329) from2 silicibacter sp. tm1040 at 1.11 a resolution
70	d3bmva2	Alignment	not modelled	7.0	18	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: Starch-binding domain
71	d1isna2	Alignment	not modelled	6.9	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
72	d2bk0a1	Alignment	not modelled	6.8	23	Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
73	c1ibtC_	Alignment	not modelled	6.8	31	PDB header: lyase Chain: C: PDB Molecule: histidine decarboxylase beta chain; PDBTitle: structure of the d53,54n mutant of histidine decarboxylase at-170 c
74	c2kl5A_	Alignment	not modelled	6.8	45	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	c2l1nA_	Alignment	not modelled	6.8	26	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of the protein yp_399305.1
76	c1wrgA_	Alignment	not modelled	6.8	100	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
77	c2kvhA_	Alignment	not modelled	6.7	75	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
78	c1ckwA_	Alignment	not modelled	6.7	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
79	d2hv2a1	Alignment	not modelled	6.7	16	Fold: SCP-like Superfamily: SCP-like Family: EF1021 C-terminal domain-like

80	d1x9na2	Alignment	not modelled	6.7	33	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: DNA ligase/mRNA capping enzyme postcatalytic domain
81	c2ns2A	Alignment	not modelled	6.6	18	PDB header: cell cycle Chain: A: PDB Molecule: spindlin-1; PDBTitle: crystal structure of spindlin1
82	d1m4ka2	Alignment	not modelled	6.6	38	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: I set domains
83	d2zpya2	Alignment	not modelled	6.6	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
84	c2eiuE	Alignment	not modelled	6.5	38	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
85	c3n6yA	Alignment	not modelled	6.5	20	PDB header: unknown function Chain: A: PDB Molecule: immunoglobulin-like protein; PDBTitle: crystal structure of an immunoglobulin-like protein (pa1606) from2 pseudomonas aeruginosa at 1.50 a resolution
86	d1hska2	Alignment	not modelled	6.4	23	Fold: Uridine diphospho-N-Acetylenolpyruvylglucosamine reductase, MurB, C-terminal domain Superfamily: Uridine diphospho-N-Acetylenolpyruvylglucosamine reductase, MurB, C-terminal domain Family: Uridine diphospho-N-Acetylenolpyruvylglucosamine reductase, MurB, C-terminal domain
87	d1j19a2	Alignment	not modelled	6.4	35	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM
88	d1vhfa	Alignment	not modelled	6.4	10	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
89	d1txca1	Alignment	not modelled	6.4	20	Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
90	d2oqla2	Alignment	not modelled	6.3	15	Fold: SH2-like Superfamily: SH2 domain Family: SH2 domain
91	c1ckxA	Alignment	not modelled	6.3	18	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	c2ys2A	Alignment	not modelled	6.2	29	PDB header: transferase Chain: A: PDB Molecule: cytoplasmic tyrosine-protein kinase bmx; PDBTitle: solution structure of the btk motif of human cytoplasmic2 tyrosine-protein kinase bmx
93	c2wsfG	Alignment	not modelled	6.2	29	PDB header: photosynthesis Chain: G: PDB Molecule: photosystem i reaction center subunit v, PDBTitle: improved model of plant photosystem i
94	d1g6pa	Alignment	not modelled	6.2	22	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
95	d1dmla1	Alignment	not modelled	6.1	29	Fold: DNA clamp Superfamily: DNA clamp Family: DNA polymerase processivity factor
96	d1rnja	Alignment	not modelled	6.1	21	Fold: beta-clip Superfamily: dUTPase-like Family: dUTPase-like
97	d1njha	Alignment	not modelled	6.1	10	Fold: Hypothetical protein YojF Superfamily: Hypothetical protein YojF Family: Hypothetical protein YojF
98	d1gawa2	Alignment	not modelled	6.0	44	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
99	d1gg3a2	Alignment	not modelled	6.0	25	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Third domain of FERM