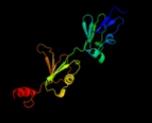
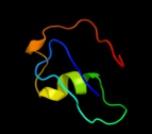
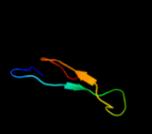
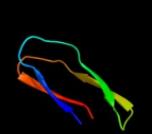
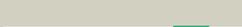


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P75883
Date	Thu Jan 5 12:15:35 GMT 2012
Unique Job ID	ad0e34a9618c3b7f

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3p42D_	 Alignment		100.0	97	PDB header: unknown function Chain: D: PDB Molecule: predicted protein; PDBTitle: structure of gfcc (ymcb), protein encoded by the e. coli group 42 capsule operon
2	c2j58G_	 Alignment		99.8	18	PDB header: membrane protein Chain: G: PDB Molecule: outer membrane lipoprotein wza; PDBTitle: the structure of wza
3	c2w8lG_	 Alignment		99.8	19	PDB header: membrane protein Chain: G: PDB Molecule: putative outer membrane lipoprotein wza; PDBTitle: crystal structure of wza24-345.
4	d2fug13	 Alignment		81.9	16	Fold: beta-Grasp (ubiquitin-like) Superfamily: Nqo1 middle domain-like Family: Nqo1 middle domain-like
5	c2fugA_	 Alignment		75.5	16	PDB header: oxidoreductase Chain: A: PDB Molecule: nadh-quinone oxidoreductase chain 1; PDBTitle: crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
6	c3ibmB_	 Alignment		56.1	25	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: cupin 2, conserved barrel domain protein; PDBTitle: crystal structure of cupin 2 domain-containing protein hha1_0468 from2 halorhodospira halophila
7	c2vldA_	 Alignment		52.1	28	PDB header: hydrolase Chain: A: PDB Molecule: upf0286 protein pyrab01260; PDBTitle: crystal structure of a repair endonuclease from pyrococcus2 abyssi
8	c3ixzA_	 Alignment		51.7	14	PDB header: hydrolase Chain: A: PDB Molecule: potassium-transporting atpase alpha; PDBTitle: pig gastric h+/k+-atpase complexed with aluminium fluoride
9	d1lr5a_	 Alignment		51.7	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
10	c3s7eB_	 Alignment		49.5	19	PDB header: allergen Chain: B: PDB Molecule: allergen ara h 1, clone p41b; PDBTitle: crystal structure of ara h 1
11	d1uika2	 Alignment		48.7	9	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein

12	c3b8eC_	Alignment		48.1	21	PDB header: hydrolase/transport protein Chain: C: PDB Molecule: sodium/potassium-transporting atpase subunit PDBTitle: crystal structure of the sodium-potassium pump
13	d1uika1	Alignment		47.9	6	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
14	c1cauB_	Alignment		47.8	12	PDB header: seed storage protein Chain: B: PDB Molecule: canavalin; PDBTitle: determination of three crystal structures of canavalin by molecular2 replacement
15	d1uija1	Alignment		47.5	9	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
16	c2cauA_	Alignment		46.7	6	PDB header: plant protein Chain: A: PDB Molecule: protein (canavalin); PDBTitle: canavalin from jack bean
17	d1rwsa_	Alignment		46.0	22	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: ThiS
18	d2d40a1	Alignment		44.8	10	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Gentisate 1,2-dioxygenase-like
19	c3jzvA_	Alignment		44.6	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein rru_a2000; PDBTitle: crystal structure of rru_a2000 from rhodospirillum rubrum: a cupin-22 domain.
20	d1fxza2	Alignment		43.5	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
21	d3bu7a1	Alignment	not modelled	43.1	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Gentisate 1,2-dioxygenase-like
22	c3bu7A_	Alignment	not modelled	43.1	14	PDB header: oxidoreductase Chain: A: PDB Molecule: gentisate 1,2-dioxygenase; PDBTitle: crystal structure and biochemical characterization of gdsp_2 a gentisate 1,2-dioxygenase from silicibacter pomeroyi
23	c3c3vA_	Alignment	not modelled	43.1	11	PDB header: allergen Chain: A: PDB Molecule: arachin arah3 isoform; PDBTitle: crystal structure of peanut major allergen ara h 3
24	c3rfuC_	Alignment	not modelled	42.9	13	PDB header: hydrolase, membrane protein Chain: C: PDB Molecule: copper efflux atpase; PDBTitle: crystal structure of a copper-transporting pib-type atpase
25	d1uija2	Alignment	not modelled	42.5	3	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
26	d1od5a2	Alignment	not modelled	41.5	18	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
27	d1dgja2	Alignment	not modelled	41.5	24	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin domains from multidomain proteins
28	d1dgwa_	Alignment	not modelled	41.2	13	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
29	c3phbC_	Alignment	not modelled	38.9	18	PDB header: plant protein Chain: C: PDB Molecule: prunin;

29	c2gkC	Alignment	not modelled	38.9	10	PDBTitle: crystal structure of pru du amandin, an allergenic protein2 from prunus dulcis
30	d1j58a	Alignment	not modelled	38.8	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
31	c1fxzC	Alignment	not modelled	37.6	11	PDB header: plant protein Chain: C: PDB Molecule: glycinin g1; PDBTitle: crystal structure of soybean proglycinin a1ab1b homotrimer
32	c2oa2A	Alignment	not modelled	37.2	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: bh2720 protein; PDBTitle: crystal structure of bh2720 (10175341) from bacillus halodurans at2 1.41 a resolution
33	c2dgyA	Alignment	not modelled	36.1	22	PDB header: translation Chain: A: PDB Molecule: mgc11102 protein; PDBTitle: solution structure of the eukaryotic initiation factor 1a2 in mgc11102 protein
34	c2zxeA	Alignment	not modelled	36.0	18	PDB header: hydrolase/transport protein Chain: A: PDB Molecule: na, k-atpase alpha subunit; PDBTitle: crystal structure of the sodium - potassium pump in the e2.2k+.pi2 state
35	c3kgIB	Alignment	not modelled	35.6	14	PDB header: plant protein Chain: B: PDB Molecule: cruciferin; PDBTitle: crystal structure of procruciferin, 11s globulin from2 brassica napus
36	d2phla2	Alignment	not modelled	35.6	9	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
37	c2hc8A	Alignment	not modelled	35.3	24	PDB header: transport protein Chain: A: PDB Molecule: cation-transporting atpase, p-type; PDBTitle: structure of the a. fulgidus copa a-domain
38	c2e9qA	Alignment	not modelled	35.0	12	PDB header: plant protein Chain: A: PDB Molecule: 11s globulin subunit beta; PDBTitle: recombinant pro-11s globulin of pumpkin
39	c3kscD	Alignment	not modelled	34.8	12	PDB header: plant protein Chain: D: PDB Molecule: lega class; PDBTitle: crystal structure of pea prolegumin, an 11s seed globulin2 from pisum sativum l.
40	d2phda1	Alignment	not modelled	34.8	18	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Gentisate 1,2-dioxygenase-like
41	c3k2oB	Alignment	not modelled	34.7	20	PDB header: oxidoreductase Chain: B: PDB Molecule: bifunctional arginine demethylase and lysyl-hydroxylase PDBTitle: structure of an oxygenase
42	c2d40C	Alignment	not modelled	34.6	11	PDB header: oxidoreductase Chain: C: PDB Molecule: putative gentisate 1,2-dioxygenase; PDBTitle: crystal structure of z3393 from escherichia coli o157:h7
43	c3uyjA	Alignment	not modelled	34.6	30	PDB header: oxidoreductase Chain: A: PDB Molecule: lysine-specific demethylase 8; PDBTitle: crystal structure of jmj d5 catalytic core domain in complex with2 nickle and alpha-kg
44	d2f4pa1	Alignment	not modelled	34.1	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1287-like
45	c3kd4A	Alignment	not modelled	33.9	21	PDB header: hydrolase Chain: A: PDB Molecule: putative protease; PDBTitle: crystal structure of a putative protease (bdi_1141) from2 parabacteroides distasonis atcc 8503 at 2.00 a resolution
46	c2vpvA	Alignment	not modelled	33.4	25	PDB header: cell cycle Chain: A: PDB Molecule: protein mif2; PDBTitle: dimerization domain of mif2p
47	c3qacA	Alignment	not modelled	33.3	9	PDB header: plant protein Chain: A: PDB Molecule: 11s globulin seed storage protein; PDBTitle: structure of amaranth 11s proglobulin seed storage protein from2 amaranthus hypochondriacus l.
48	c3kgzA	Alignment	not modelled	33.2	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: cupin 2 conserved barrel domain protein; PDBTitle: crystal structure of a cupin 2 conserved barrel domain protein from2 rhodopseudomonas palustris
49	c1uijA	Alignment	not modelled	32.0	3	PDB header: sugar binding protein Chain: A: PDB Molecule: beta subunit of beta conglycinin; PDBTitle: crystal structure of soybean beta-conglycinin beta2 homotrimer (i122m/k124w)
50	c2xdvA	Alignment	not modelled	32.0	17	PDB header: nuclear protein Chain: A: PDB Molecule: myc-induced nuclear antigen; PDBTitle: crystal structure of the catalytic domain of flj14393
51	c2vqaC	Alignment	not modelled	31.3	12	PDB header: metal-binding protein Chain: C: PDB Molecule: sll1358 protein; PDBTitle: protein-folding location can regulate mn versus cu- or zn-2 binding. crystal structure of mnca.
52	c3al6A	Alignment	not modelled	31.2	20	PDB header: unknown function Chain: A: PDB Molecule: jmj c domain-containing protein c2orf60; PDBTitle: crystal structure of human tyw5
53	c2q30C	Alignment	not modelled	31.2	28	PDB header: unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a rmlc-like cupin protein (dde_2303) from2 desulfovibrio desulfuricans subsp. at 1.94 a resolution
54	d1vj2a	Alignment	not modelled	31.0	7	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1459-like
55	d1p9ka	Alignment	not modelled	29.5	8	Fold: Alpha-L RNA-binding motif Superfamily: Alpha-L RNA-binding motif Family: YbcJ-like

56	d2phla1	Alignment	not modelled	28.9	9	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
57	d1vrba1	Alignment	not modelled	28.6	40	Fold: Double-stranded beta-helix Superfamily: Clavamate synthase-like Family: Asparaginyl hydroxylase-like
58	c2eaaB	Alignment	not modelled	28.5	6	PDB header: plant protein Chain: B: PDB Molecule: 7s globulin-3; PDBTitle: crystal structure of adzuki bean 7s globulin-3
59	c2r32A	Alignment	not modelled	28.5	24	PDB header: immune system Chain: A: PDB Molecule: gcn4-pii/tumor necrosis factor ligand PDBTitle: crystal structure of human gitrl variant
60	c2i45C	Alignment	not modelled	28.3	7	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of protein nmb1881 from neisseria meningitidis
61	c3d82A	Alignment	not modelled	27.6	7	PDB header: metal binding protein Chain: A: PDB Molecule: cupin 2, conserved barrel domain protein; PDBTitle: crystal structure of a cupin-2 domain containing protein (sfri_3543)2 from shewanella frigidimarina ncimb 400 at 2.05 a resolution
62	c3h7yA	Alignment	not modelled	27.2	21	PDB header: biosynthetic protein Chain: A: PDB Molecule: bacilysin biosynthesis protein bacb; PDBTitle: crystal structure of bacb, an enzyme involved in bacilysin synthesis,2 in tetragonal form
63	d1juha	Alignment	not modelled	27.2	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Quercetin 2,3-dioxygenase-like
64	d1y9qa2	Alignment	not modelled	27.0	11	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Probable transcriptional regulator VC1968, C-terminal domain
65	d1fxza1	Alignment	not modelled	26.6	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
66	c2pfwB	Alignment	not modelled	25.5	14	PDB header: unknown function Chain: B: PDB Molecule: cupin 2, conserved barrel domain protein; PDBTitle: crystal structure of a rmlc-like cupin (sfri_3105) from shewanella2 frigidimarina ncimb 400 at 1.90 a resolution
67	c3ht2A	Alignment	not modelled	25.3	17	PDB header: lyase Chain: A: PDB Molecule: remf protein; PDBTitle: zink containing polyketide cyclase remf from streptomyces2 resistomycificus
68	c3cewA	Alignment	not modelled	25.2	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized cupin protein; PDBTitle: crystal structure of a cupin protein (bf4112) from bacteroides2 fragilis. northeast structural genomics consortium target bfr205
69	c2kytA	Alignment	not modelled	25.1	33	PDB header: hydrolase Chain: A: PDB Molecule: group xvi phospholipase a2; PDBTitle: solution struture of the h-rev107 n-terminal domain
70	d1yhfa1	Alignment	not modelled	25.1	11	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1287-like
71	c3fjsC	Alignment	not modelled	25.0	25	PDB header: biosynthetic protein Chain: C: PDB Molecule: uncharacterized protein with rmlc-like cupin fold; PDBTitle: crystal structure of a putative biosynthetic protein with rmlc-like2 cupin fold (reut_b4087) from ralstonia eutropha jmp134 at 1.90 a3 resolution
72	d1h2ka	Alignment	not modelled	24.8	30	Fold: Double-stranded beta-helix Superfamily: Clavamate synthase-like Family: Hypoxia-inducible factor HIF inhhibitor (FIH1)
73	d1sq4a	Alignment	not modelled	24.4	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: YlbA-like
74	c3l2hD	Alignment	not modelled	24.4	21	PDB header: isomerase Chain: D: PDB Molecule: putative sugar phosphate isomerase; PDBTitle: crystal structure of putative sugar phosphate isomerase (afe_0303)2 from acidithiobacillus ferrooxidans atcc 23270 at 1.85 a resolution
75	c3b8cB	Alignment	not modelled	24.4	15	PDB header: hydrolase Chain: B: PDB Molecule: atpase 2, plasma membrane-type; PDBTitle: crystal structure of a plasma membrane proton pump
76	c2gu9B	Alignment	not modelled	24.3	21	PDB header: immune system Chain: B: PDB Molecule: tetracenomycin polyketide synthesis protein; PDBTitle: crystal structure of xc5357 from xanthomonas campestris: a2 putative tetracenomycin polyketide synthesis protein3 adopting a novel cupin subfamily structure
77	d1rm6c2	Alignment	not modelled	23.8	10	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin domains from multidomain proteins
78	d1l5pa	Alignment	not modelled	23.5	20	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
79	d1iuea	Alignment	not modelled	23.4	6	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
80	c3j08A	Alignment	not modelled	23.4	24	PDB header: hydrolase, metal transport Chain: A: PDB Molecule: copper-exporting p-type atpase a; PDBTitle: high resolution helical reconstruction of the bacterial p-

						type atpase2 copper transporter copa
81	d1t3qa2	Alignment	not modelled	23.2	11	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin domains from multidomain proteins
82	d2cu3a1	Alignment	not modelled	23.2	15	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoAD/ThiS Family: ThiS
83	d1awda_	Alignment	not modelled	22.7	16	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
84	c3h9iB_	Alignment	not modelled	22.6	15	PDB header: transport protein Chain: B: PDB Molecule: cation efflux system protein cusb; PDBTitle: crystal structure of the membrane fusion protein cusb from escherichia2 coli
85	d1v70a_	Alignment	not modelled	22.3	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1287-like
86	d1vlba2	Alignment	not modelled	21.3	22	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin domains from multidomain proteins
87	c3i7dB_	Alignment	not modelled	21.2	18	PDB header: isomerase Chain: B: PDB Molecule: sugar phosphate isomerase; PDBTitle: crystal structure of sugar phosphate isomerase from a cupin2 superfamily spo2919 from silicibacter pomeroyi (yp_168127.1) from3 silicibacter pomeroyi dss-3 at 2.30 a resolution
88	c3rnsA_	Alignment	not modelled	20.9	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: cupin 2 conserved barrel domain protein; PDBTitle: cupin 2 conserved barrel domain protein from leptotrichia buccalis
89	d1sefa_	Alignment	not modelled	20.8	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: YlbA-like
90	c1sefA_	Alignment	not modelled	20.8	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved hypothetical protein; PDBTitle: crystal structure of cupin domain protein ef2996 from enterococcus2 faecalis
91	d1rc6a_	Alignment	not modelled	20.6	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: YlbA-like
92	c2yu1A_	Alignment	not modelled	20.5	10	PDB header: oxidoreductase Chain: A: PDB Molecule: jmjC domain-containing histone demethylation protein 1a; PDBTitle: crystal structure of hjhdm1a complexed with a-ketoglutarate
93	c1t3qD_	Alignment	not modelled	20.4	11	PDB header: oxidoreductase Chain: D: PDB Molecule: quinoline 2-oxidoreductase small subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86
94	c3cwiA_	Alignment	not modelled	19.8	12	PDB header: biosynthetic protein Chain: A: PDB Molecule: thiamine-biosynthesis protein this; PDBTitle: crystal structure of thiamine biosynthesis protein (this)2 from geobacter metallireducens. northeast structural3 genomics consortium target gmr137
95	d1sfna_	Alignment	not modelled	19.5	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: YlbA-like
96	c1mhsA_	Alignment	not modelled	19.0	21	PDB header: membrane protein, proton transport Chain: A: PDB Molecule: plasma membrane atpase; PDBTitle: model of neurospora crassa proton atpase
97	c1z2mA_	Alignment	not modelled	18.7	16	PDB header: signaling protein Chain: A: PDB Molecule: interferon, alpha-inducible protein (clone ifi- PDBTitle: crystal structure of isg15, the interferon-induced2 ubiquitin cross reactive protein
98	c3lwcA_	Alignment	not modelled	18.1	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of structural genomics, unknown function2 (yp_766765.1) from rhizobium leguminosarum bv. viciae 3841 at 1.40 a3 resolution
99	d1od5a1	Alignment	not modelled	18.0	13	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: GermIn/Seed storage 7S protein