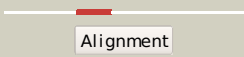

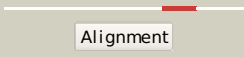
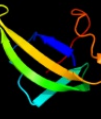
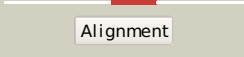



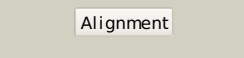

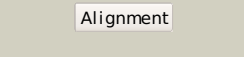

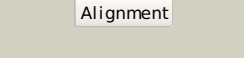

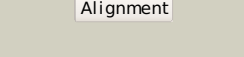



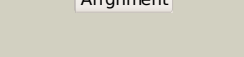

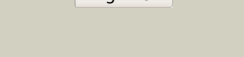












Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P76272
Date	Thu Jan 5 12:21:28 GMT 2012
Unique Job ID	a224dc802c7002a2

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1pj5a1	 Alignment		93.3	16	Fold: Elongation factor/aminomethyltransferase common domain Superfamily: Aminomethyltransferase beta-barrel domain Family: Aminomethyltransferase beta-barrel domain
2	d1v5va1	 Alignment		91.2	22	Fold: Elongation factor/aminomethyltransferase common domain Superfamily: Aminomethyltransferase beta-barrel domain Family: Aminomethyltransferase beta-barrel domain
3	c2j5uB_	 Alignment		90.8	20	PDB header: cell shape regulation Chain: B: PDB Molecule: mrec protein; PDBTitle: mrec lysteria monocytogenes
4	d1wosa1	 Alignment		88.2	15	Fold: Elongation factor/aminomethyltransferase common domain Superfamily: Aminomethyltransferase beta-barrel domain Family: Aminomethyltransferase beta-barrel domain
5	c1v5vA_	 Alignment		88.1	22	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of a component of glycine cleavage system: t-protein2 from pyrococcus horikoshii ot3 at 1.5 a resolution
6	d1vloa1	 Alignment		78.9	20	Fold: Elongation factor/aminomethyltransferase common domain Superfamily: Aminomethyltransferase beta-barrel domain Family: Aminomethyltransferase beta-barrel domain
7	c1yx2B_	 Alignment		76.7	23	PDB header: transferase Chain: B: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of the probable aminomethyltransferase2 from bacillus subtilis
8	c1worA_	 Alignment		70.4	18	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of t-protein of the glycine cleavage2 system
9	c2qf4A_	 Alignment		65.5	15	PDB header: structural protein Chain: A: PDB Molecule: cell shape determining protein mrec; PDBTitle: high resolution structure of the major periplasmic domain from the2 cell shape-determining filament mrec (orthorhombic form)
10	c3girA_	 Alignment		60.8	14	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of glycine cleavage system2 aminomethyltransferase t from bartonella henselae
11	c3tfhB_	 Alignment		59.5	12	PDB header: transferase Chain: B: PDB Molecule: gcvt-like aminomethyltransferase protein; PDBTitle: dmsp-dependent demethylase from p. ubiqu - apo

12	c1wsrA_	Alignment		58.0	22	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of human t-protein of glycine cleavage2 system
13	d1c99a_	Alignment		47.9	17	Fold: Transmembrane helix hairpin Superfamily: F1F0 ATP synthase subunit C Family: F1F0 ATP synthase subunit C
14	c1pj6A_	Alignment		46.5	17	PDB header: oxidoreductase Chain: A: PDB Molecule: n,n-dimethylglycine oxidase; PDBTitle: crystal structure of dimethylglycine oxidase of arthrobacter2 globiformis in complex with folic acid
15	d1fftb2	Alignment		36.9	15	Fold: Transmembrane helix hairpin Superfamily: Cytochrome c oxidase subunit II-like, transmembrane region Family: Cytochrome c oxidase subunit II-like, transmembrane region
16	c1txkA_	Alignment		35.2	25	PDB header: biosynthetic protein Chain: A: PDB Molecule: glucans biosynthesis protein g; PDBTitle: crystal structure of escherichia coli opgg
17	d1jz8a3	Alignment		33.6	17	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: beta-Galactosidase/glucuronidase, N-terminal domain
18	d1txka2	Alignment		33.2	23	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: MdoG-like
19	c1vloA_	Alignment		32.2	16	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of aminomethyltransferase (t protein;2 tetrahydrofolate-dependent) of glycine cleavage system (np417381)3 from escherichia coli k12 at 1.70 a resolution
20	c1yo8A_	Alignment		27.1	13	PDB header: cell adhesion Chain: A: PDB Molecule: thrombospondin-2; PDBTitle: structure of the c-terminal domain of human thrombospondin-2
21	c3o0lB_	Alignment	not modelled	26.7	18	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
22	d1yq2a3	Alignment	not modelled	26.1	13	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: beta-Galactosidase/glucuronidase, N-terminal domain
23	c1kqsA_	Alignment	not modelled	24.8	23	PDB header: ribosome Chain: A: PDB Molecule: ribosomal protein l2; PDBTitle: the haloarcula marismortui 50s complexed with a2 pretranslocational intermediate in protein synthesis
24	c3cb0B_	Alignment	not modelled	24.5	15	PDB header: oxidoreductase Chain: B: PDB Molecule: 4-hydroxyphenylacetate 3-monooxygenase; PDBTitle: cobr
25	c1vlyA_	Alignment	not modelled	24.2	13	PDB header: transferase Chain: A: PDB Molecule: unknown protein from 2d-page; PDBTitle: crystal structure of a putative aminomethyltransferase (ygfz) from2 escherichia coli at 1.30 a resolution
26	d1wgba_	Alignment	not modelled	22.2	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
27	d1kkga_	Alignment	not modelled	19.9	38	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
28	c2c1lA_	Alignment	not modelled	18.8	23	PDB header: hydrolase Chain: A: PDB Molecule: restriction endonuclease; PDBTitle: structure of the bfii restriction endonuclease
						Fold: Alpha-lytic protease prodomain-like

29	d1pa4a_	Alignment	not modelled	18.2	44	Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
30	c2kzfA_	Alignment	not modelled	18.1	38	PDB header: ribosomal protein Chain: A: PDB Molecule: ribosome-binding factor a; PDBTitle: solution nmr structure of the thermotoga maritima protein tm0855 a2 putative ribosome binding factor a
31	c2r6vA_	Alignment	not modelled	18.0	15	PDB header: flavoprotein Chain: A: PDB Molecule: uncharacterized protein ph0856; PDBTitle: crystal structure of fmn-binding protein (np_142786.1) from pyrococcus2 horikoshii at 1.35 a resolution
32	c2r39A_	Alignment	not modelled	17.2	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: fixg-related protein; PDBTitle: crystal structure of fixg-related protein from vibrio parahaemolyticus
33	c2r0xA_	Alignment	not modelled	16.9	10	PDB header: oxidoreductase Chain: A: PDB Molecule: possible flavin reductase; PDBTitle: crystal structure of a putative flavin reductase (ycdh, hs_1225) from2 haemophilus somnus 129pt at 1.06 a resolution
34	d2dyja1	Alignment	not modelled	16.6	34	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
35	d1bhua_	Alignment	not modelled	15.8	20	Fold: gamma-Crystallin-like Superfamily: gamma-Crystallin-like Family: Streptomyces metalloproteinase inhibitor, SMPI
36	d1v58a2	Alignment	not modelled	15.2	21	Fold: Cystatin-like Superfamily: DsbC/DsbG N-terminal domain-like Family: DsbC/DsbG N-terminal domain-like
37	c3fljA_	Alignment	not modelled	14.8	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein conserved in bacteria with a PDBTitle: crystal structure of uncharacterized protein conserved in bacteria2 with a cystatin-like fold (yp_168589.1) from silicibacter pomeroyi3 dss-3 at 2.00 a resolution
38	c1w2tE_	Alignment	not modelled	14.4	10	PDB header: hydrolase Chain: E: PDB Molecule: beta fructosidase; PDBTitle: beta-fructosidase from thermotoga maritima in complex with2 raffinose
39	c2kebA_	Alignment	not modelled	14.4	11	PDB header: dna binding protein Chain: A: PDB Molecule: dna polymerase subunit alpha b; PDBTitle: nmr solution structure of the n-terminal domain of the dna polymerase2 alpha p68 subunit
40	c2zjbB_	Alignment	not modelled	13.3	35	PDB header: recombination Chain: B: PDB Molecule: meiotic recombination protein dmc1/lim15 homolog; PDBTitle: crystal structure of the human dmc1-m200v polymorphic2 variant
41	d1josa_	Alignment	not modelled	12.4	35	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
42	c3o5aB_	Alignment	not modelled	12.3	16	PDB header: oxidoreductase Chain: B: PDB Molecule: diheme cytochrome c napb; PDBTitle: crystal structure of partially reduced periplasmic nitrate reductase2 from cupriavidus necator using ionic liquids
43	c2p0yA_	Alignment	not modelled	12.1	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein lp_0780; PDBTitle: crystal structure of q88yi3_lacpl from lactobacillus2 plantarum. northeast structural genomics consortium target3 lpr6
44	c2d38A_	Alignment	not modelled	11.8	18	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical nadh-dependent fmn oxidoreductase; PDBTitle: the crystal structure of flavin reductase hpac complexed with nadp+
45	d1whva_	Alignment	not modelled	11.6	30	Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: Canonical RBD
46	d1v5wa_	Alignment	not modelled	11.1	35	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
47	c1pznG_	Alignment	not modelled	10.9	43	PDB header: recombination Chain: G: PDB Molecule: dna repair and recombination protein rad51; PDBTitle: rad51 (rada)
48	d1pzna2	Alignment	not modelled	10.6	43	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
49	d2e7ga1	Alignment	not modelled	10.6	19	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
50	c2w0mA_	Alignment	not modelled	10.5	43	PDB header: unknown function Chain: A: PDB Molecule: sso2452; PDBTitle: crystal structure of sso2452 from sulfolobus solfataricus2 p2
51	d1rz0a_	Alignment	not modelled	10.4	18	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
52	c3nmbA_	Alignment	not modelled	10.3	36	PDB header: hydrolase Chain: A: PDB Molecule: putative sugar hydrolase; PDBTitle: crystal structure of a putative sugar hydrolase (bacova_03189) from2 bacteroides ovatus at 2.40 a resolution
53	d2axte1	Alignment	not modelled	9.8	30	Fold: Single transmembrane helix Superfamily: Cytochrome b559 subunits Family: Cytochrome b559 subunits
54	c3hbkA_	Alignment	not modelled	9.7	36	PDB header: hydrolase Chain: A: PDB Molecule: putative glycosyl hydrolase; PDBTitle: crystal structure of putative glycosyl hydrolase, was

						domain of2 unknown function (duf1080) (yp_001302580.1) from parabacteroides3 distasonis atcc 8503 at 2.36 a resolution
55	c3uaiA_	Alignment	not modelled	9.7	18	PDB header: isomerase/chaperone Chain: A: PDB Molecule: h/aca ribonucleoprotein complex subunit 4; PDBTitle: structure of the shq1-cbf5-nop10-gar1 complex from saccharomyces2 cerevisiae
56	c3izcN_	Alignment	not modelled	9.6	22	PDB header: ribosome Chain: N: PDB Molecule: 60s ribosomal protein rpl14 (l14e); PDBTitle: localization of the large subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
57	c2jqoA_	Alignment	not modelled	9.6	13	PDB header: structural genomics Chain: A: PDB Molecule: hypothetical protein yoba; PDBTitle: nmr solution structure of bacillus subtilis yoba 21-120:2 northeast structural genomics consortium target sr547
58	c1pkvB_	Alignment	not modelled	9.4	22	PDB header: transferase Chain: B: PDB Molecule: riboflavin synthase alpha chain; PDBTitle: the n-terminal domain of riboflavin synthase in complex with2 riboflavin
59	c1pkvA_	Alignment	not modelled	9.4	22	PDB header: transferase Chain: A: PDB Molecule: riboflavin synthase alpha chain; PDBTitle: the n-terminal domain of riboflavin synthase in complex with2 riboflavin
60	c3h3lB_	Alignment	not modelled	9.2	23	PDB header: hydrolase Chain: B: PDB Molecule: putative sugar hydrolase; PDBTitle: crystal structure of putative sugar hydrolase (yp_001304206.1) from2 parabacteroides distasonis atcc 8503 at 1.59 a resolution
61	d1mvqa_	Alignment	not modelled	9.1	23	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Legume lectins
62	d2evra1	Alignment	not modelled	8.6	25	Fold: SH3-like barrel Superfamily: Prokaryotic SH3-related domain Family: Spr N-terminal domain-like
63	d1i8da1	Alignment	not modelled	8.6	22	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Riboflavin synthase domain-like Family: Riboflavin synthase
64	d2cp6a1	Alignment	not modelled	8.5	15	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
65	d2i00a1	Alignment	not modelled	8.5	11	Fold: SCP-like Superfamily: SCP-like Family: EF1021 C-terminal domain-like
66	d1h9wa_	Alignment	not modelled	8.4	20	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Legume lectins
67	d2i1qa2	Alignment	not modelled	8.3	39	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
68	d2cu6a1	Alignment	not modelled	8.3	14	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
69	d1zy9a1	Alignment	not modelled	8.3	43	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: YicI N-terminal domain-like
70	d1zqla1	Alignment	not modelled	8.3	21	Fold: Sm-like fold Superfamily: GatD N-terminal domain-like Family: GatD N-terminal domain-like
71	d2hv2a1	Alignment	not modelled	8.2	12	Fold: SCP-like Superfamily: SCP-like Family: EF1021 C-terminal domain-like
72	c1icfB_	Alignment	not modelled	8.1	38	PDB header: hydrolase Chain: B: PDB Molecule: protein (cathepsin I: light chain); PDBTitle: crystal structure of mhc class ii associated p41 ii fragment in2 complex with cathepsin I
73	d2pmaa1	Alignment	not modelled	8.0	16	Fold: Acid proteases Superfamily: Acid proteases Family: LPG0085-like
74	d2cb2a1	Alignment	not modelled	7.9	25	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: SOR-like
75	c3k87B_	Alignment	not modelled	7.9	10	PDB header: oxidoreductase Chain: B: PDB Molecule: chlorophenol-4-monooxygenase component 1; PDBTitle: crystal structure of nadh:fad oxidoreductase (tftc) - fad2 complex
76	c3u1xA_	Alignment	not modelled	7.8	27	PDB header: hydrolase Chain: A: PDB Molecule: putative glycosyl hydrolase; PDBTitle: crystal structure of a putative glycosyl hydrolase (bdi_1869) from2 parabacteroides distasonis atcc 8503 at 1.70 a resolution
77	c3khsB_	Alignment	not modelled	7.8	21	PDB header: hydrolase Chain: B: PDB Molecule: purine nucleoside phosphorylase; PDBTitle: crystal structure of grouper iridovirus purine nucleoside2 phosphorylase
78	d1vm8a_	Alignment	not modelled	7.6	26	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-di-phospho-sugar transferases Family: UDP-glucose pyrophosphorylase
79	c2z8nB_	Alignment	not modelled	7.6	25	PDB header: lyase Chain: B: PDB Molecule: 27.5 kda virulence protein; PDBTitle: structural basis for the catalytic mechanism of phosphothreonine lyase

80	d2cnaa_	Alignment	not modelled	7.5	22	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Legume lectins
81	d1mzaa_	Alignment	not modelled	7.5	22	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
82	d1tf7a2	Alignment	not modelled	7.5	43	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
83	c2l66B_	Alignment	not modelled	7.4	17	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, abrb family; PDBTitle: the dna-recognition fold of sso7c4 suggests a new member of spovt-abrb2 superfamily from archaea.
84	c3nfgG_	Alignment	not modelled	7.4	10	PDB header: transcription Chain: G: PDB Molecule: dna-directed rna polymerase i subunit rpa49; PDBTitle: crystal structure of dimerization module of rna polymerase i2 subcomplex a49/a34.5
85	d1g7sa1	Alignment	not modelled	7.3	16	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Translation proteins Family: Elongation factors
86	d1o7ia_	Alignment	not modelled	7.3	23	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB
87	c1x31A_	Alignment	not modelled	7.3	14	PDB header: oxidoreductase Chain: A: PDB Molecule: sarcosine oxidase alpha subunit; PDBTitle: crystal structure of heterotetrameric sarcosine oxidase from2 corynebacterium sp. u-96
88	c2v31A_	Alignment	not modelled	7.3	15	PDB header: ligase Chain: A: PDB Molecule: ubiquitin-activating enzyme e1 x; PDBTitle: structure of first catalytic cysteine half-domain of mouse2 ubiquitin-activating enzyme
89	d1eu3a1	Alignment	not modelled	7.2	19	Fold: OB-fold Superfamily: Bacterial enterotoxins Family: Superantigen toxins, N-terminal domain
90	d2uubq1	Alignment	not modelled	7.2	7	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
91	c2xlfA_	Alignment	not modelled	7.2	12	PDB header: metal binding protein Chain: A: PDB Molecule: sll1785 protein; PDBTitle: structure and metal-loading of a soluble periplasm cupro-protein:2 apo-cuca-closed (semet)
92	c2eqnA_	Alignment	not modelled	7.0	16	PDB header: transcription Chain: A: PDB Molecule: hypothetical protein loc92345; PDBTitle: solution structure of the naf1 domain of hypothetical2 protein bc008207 [homo sapiens]
93	c4a19F_	Alignment	not modelled	7.0	19	PDB header: ribosome Chain: F: PDB Molecule: rpl14; PDBTitle: t.thermophila 60s ribosomal subunit in complex with2 initiation factor 6. this file contains 26s rna and3 proteins of molecule 2.
94	c2kncA_	Alignment	not modelled	6.9	19	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iiB; PDBTitle: platelet integrin alfaIIB-beta3 transmembrane-cytoplasmic2 heterocomplex
95	c1jniA_	Alignment	not modelled	6.8	0	PDB header: oxidoreductase Chain: A: PDB Molecule: di-heme cytochrome c napb; PDBTitle: structure of the napb subunit of the periplasmic nitrate2 reductase from haemophilus influenzae.
96	d1jnia_	Alignment	not modelled	6.8	0	Fold: Multi-heme cytochromes Superfamily: Multi-heme cytochromes Family: Di-heme elbow motif
97	c1cn3F_	Alignment	not modelled	6.8	43	PDB header: viral protein Chain: F: PDB Molecule: fragment of coat protein vp2; PDBTitle: interaction of polyomavirus internal protein vp2 with major2 capsid protein vp1 and implications for participation of3 vp2 in viral entry
98	c2ztsB_	Alignment	not modelled	6.7	43	PDB header: atp-binding protein Chain: B: PDB Molecule: putative uncharacterized protein ph0186; PDBTitle: crystal structure of kaic-like protein ph0186 from2 hyperthermophilic archaea pyrococcus horikoshii ot3
99	d1iaua_	Alignment	not modelled	6.7	14	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases