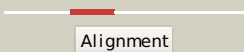
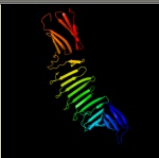
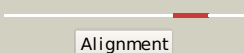
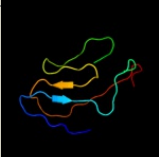
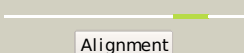
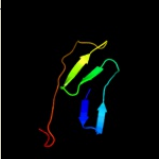
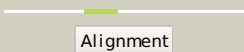
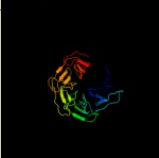
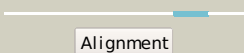
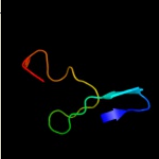

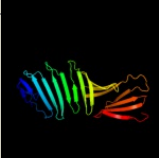
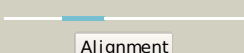

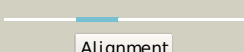

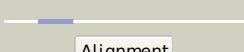

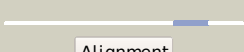
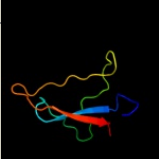
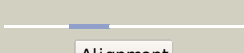





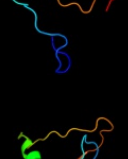


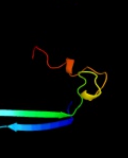
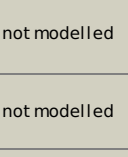


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P16917
Date	Wed Jan 25 15:20:40 GMT 2012
Unique Job ID	9ae603be021ddcff

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2oy7A_	 Alignment		96.5	15	PDB header: membrane protein Chain: A: PDB Molecule: outer surface protein a; PDBTitle: the crystal structure of ospa mutant
2	d1hnga1	 Alignment		92.7	19	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: V set domains (antibody variable domain-like)
3	d1hnfa1	 Alignment		68.3	16	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: V set domains (antibody variable domain-like)
4	c1n7dA_	 Alignment		67.7	12	PDB header: lipid transport Chain: A: PDB Molecule: low-density lipoprotein receptor; PDBTitle: extracellular domain of the ldl receptor
5	d1x3za1	 Alignment		39.1	18	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
6	d1ospo_	 Alignment		33.3	16	Fold: open-sided beta-meander Superfamily: Outer surface protein Family: Outer surface protein
7	c2w8bB_	 Alignment		31.4	12	PDB header: protein transport/membrane protein Chain: B: PDB Molecule: protein tolB; PDBTitle: crystal structure of processed tolB in complex with pal
8	c3e5zA_	 Alignment		31.0	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative gluconolactonase; PDBTitle: x-ray structure of the putative gluconolactonase in protein family2 pf08450. northeast structural genomics consortium target drr130.
9	c3rwxA_	 Alignment		25.0	18	PDB header: transport protein Chain: A: PDB Molecule: hypothetical bacterial outer membrane protein; PDBTitle: crystal structure of a hypothetical bacterial outer membrane protein2 (bf2706) from bacteroides fragilis nctc 9343 at 2.40 a resolution
10	d2j44a2	 Alignment		23.8	18	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: PUD-like
11	c2ivzD_	 Alignment		22.0	11	PDB header: protein transport/hydrolase Chain: D: PDB Molecule: protein tolB; PDBTitle: structure of tolB in complex with a peptide of the colicin2 e9 t-domain

12	d2f4ma1	Alignment		21.0	26	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
13	c3eswA_	Alignment		20.8	21	PDB header: hydrolase Chain: A: PDB Molecule: peptide-n(4)-(n-acetyl-beta-glucosaminyl)asparagine PDBTitle: complex of yeast pngase with glcnac2-iac.
14	d1sska_	Alignment		20.3	21	Fold: Coronavirus RNA-binding domain Superfamily: Coronavirus RNA-binding domain Family: Coronavirus RNA-binding domain
15	c3mswA_	Alignment		20.3	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a protein with unknown function (bf3112) from2 bacteroides fragilis nctc 9343 at 1.90 a resolution
16	c1j5qB_	Alignment		20.0	28	PDB header: viral protein Chain: B: PDB Molecule: major capsid protein; PDBTitle: the structure and evolution of the major capsid protein of a large,2 lipid-containing, dna virus.
17	d2j43a1	Alignment		17.2	16	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: PUD-like
18	d2j44a1	Alignment		17.2	15	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: PUD-like
19	d1ei5a1	Alignment		15.5	32	Fold: Streptavidin-like Superfamily: D-aminopeptidase, middle and C-terminal domains Family: D-aminopeptidase, middle and C-terminal domains
20	c3k8hA_	Alignment		15.5	24	PDB header: membrane protein Chain: A: PDB Molecule: 30klp; PDBTitle: structure of crystal form i of tp0453
21	c1t3dB_	Alignment	not modelled	14.0	32	PDB header: transferase Chain: B: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of serine acetyltransferase from e.coli at 2.2a
22	c3hd4A_	Alignment	not modelled	13.8	21	PDB header: viral protein Chain: A: PDB Molecule: nucleoprotein; PDBTitle: mhv nucleocapsid protein ntd
23	c3ilwA_	Alignment	not modelled	13.7	24	PDB header: isomerase Chain: A: PDB Molecule: dna gyrase subunit a; PDBTitle: structure of dna gyrase subunit a n-terminal domain
24	d1o5ua_	Alignment	not modelled	13.6	8	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Hypothetical protein TM1112
25	c2ksnA_	Alignment	not modelled	13.1	20	PDB header: signaling protein Chain: A: PDB Molecule: ubiquitin domain-containing protein 2; PDBTitle: solution structure of the n-terminal domain of dc-ubp/ubtd2
26	c2x12A_	Alignment	not modelled	12.6	27	PDB header: cell adhesion Chain: A: PDB Molecule: fimbriae-associated protein fap1; PDBTitle: ph-induced modulation of streptococcus parasanguinis2 adhesion by fap1 fimbriae
27	c3s88l_	Alignment	not modelled	12.6	19	PDB header: immune system/viral protein Chain: I: PDB Molecule: envelope glycoprotein; PDBTitle: crystal structure of sudan ebolavirus glycoprotein (strain gulu) bound2 to 16f6
28	c2kijA_	Alignment	not modelled	12.1	25	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 1; PDBTitle: solution structure of the actuator domain of the copper-2 transporting atpase atp7a
						PDB header: hydrolase

29	c3bmxB_	Alignment	not modelled	12.1	42	Chain: B: PDB Molecule: uncharacterized lipoprotein ybbd; PDBTitle: beta-n-hexosaminidase (ybbd) from bacillus subtilis
30	d1xata_	Alignment	not modelled	11.8	26	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
31	d1t3da_	Alignment	not modelled	11.6	32	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
32	d1pk6c_	Alignment	not modelled	11.4	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
33	c2wlgA_	Alignment	not modelled	11.2	26	PDB header: transferase Chain: A: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
34	d1td6a_	Alignment	not modelled	11.1	31	Fold: Hypothetical protein MPN330 Superfamily: Hypothetical protein MPN330 Family: Hypothetical protein MPN330
35	c2j44A_	Alignment	not modelled	11.1	15	PDB header: carbohydrate-binding module Chain: A: PDB Molecule: alkaline amylopullulanase; PDBTitle: alpha-glucan binding by a streptococcal virulence factor
36	c2gopB_	Alignment	not modelled	11.0	8	PDB header: hydrolase Chain: B: PDB Molecule: trilobed protease; PDBTitle: the beta-propeller domain of the trilobed protease from pyrococcus2 furiosus reveals an open velcro topology
37	d1bcoa1	Alignment	not modelled	11.0	17	Fold: mu transposase, C-terminal domain Superfamily: mu transposase, C-terminal domain Family: mu transposase, C-terminal domain
38	c3ifzA_	Alignment	not modelled	10.8	21	PDB header: isomerase Chain: A: PDB Molecule: dna gyrase subunit a; PDBTitle: crystal structure of the first part of the mycobacterium tuberculosis2 dna gyrase reaction core: the breakage and reunion domain at 2.7 a3 resolution
39	d2bxxa1	Alignment	not modelled	10.8	24	Fold: Coronavirus RNA-binding domain Superfamily: Coronavirus RNA-binding domain Family: Coronavirus RNA-binding domain
40	c2ka3C_	Alignment	not modelled	10.7	36	PDB header: structural protein Chain: C: PDB Molecule: emilin-1; PDBTitle: structure of emilin-1 c1q-like domain
41	d1brwa3	Alignment	not modelled	10.5	26	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
42	d2i52a1	Alignment	not modelled	10.2	17	Fold: MK0786-like Superfamily: MK0786-like Family: MK0786-like
43	d1bcga_	Alignment	not modelled	10.2	38	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Long-chain scorpion toxins
44	d1pk6b_	Alignment	not modelled	10.1	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
45	d1pk6a_	Alignment	not modelled	10.1	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
46	c3jroA_	Alignment	not modelled	10.0	12	PDB header: transport protein, structural protein Chain: A: PDB Molecule: fusion protein of protein transport protein sec13 PDBTitle: nup84-nup145c-sec13 edge element of the npc lattice
47	d1mr7a_	Alignment	not modelled	9.7	24	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
48	d2tpt3	Alignment	not modelled	9.7	23	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
49	d2jqd1	Alignment	not modelled	9.5	20	Fold: PB2 C-terminal domain-like Superfamily: PB2 C-terminal domain-like Family: PB2 C-terminal domain-like
50	d1f00i2	Alignment	not modelled	9.5	38	Fold: Immunoglobulin-like beta-sandwich Superfamily: Invasin/intimin cell-adhesion fragments Family: Invasin/intimin cell-adhesion fragments
51	d1m3ya2	Alignment	not modelled	9.4	39	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Group II dsDNA viruses VP Family: Major capsid protein vp54
52	c3bgvA_	Alignment	not modelled	9.4	20	PDB header: hydrolase, viral protein Chain: A: PDB Molecule: polynucleotide 5'-triphosphatase; PDBTitle: triclinic structure of mimivirus capping enzyme2 triphosphatase at 1.65 a
53	c3fsbB_	Alignment	not modelled	9.1	27	PDB header: transferase Chain: B: PDB Molecule: qdtc; PDBTitle: crystal structure of qdtc, the dtdp-3-amino-3,6-dideoxy-d-2 glucose n-acetyl transferase from thermoanaerobacterium3 thermosaccharolyticum in complex with coa and dtdp-3-amino-4 quinovose
54	d1c3ha_	Alignment	not modelled	9.0	31	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
55	c3vh0C_	Alignment	not modelled	9.0	9	PDB header: protein binding/dna Chain: C: PDB Molecule: uncharacterized protein ynce;

					PDBTitle: crystal structure of e. coli yncE complexed with dna
56	c2hc8A_	Alignment	not modelled	9.0	28 PDB header: transport protein Chain: A: PDB Molecule: cation-transporting atpase, p-type; PDBTitle: structure of the a. fulgidus copa a-domain
57	d1krka_	Alignment	not modelled	8.9	29 Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
58	c1gr3A_	Alignment	not modelled	8.9	45 PDB header: collagen Chain: A: PDB Molecule: collagen x; PDBTitle: structure of the human collagen x nc1 trimer
59	d1gr3a_	Alignment	not modelled	8.9	45 Fold: TNF-like Superfamily: TNF-like Family: TNF-like
60	d1j2za_	Alignment	not modelled	8.7	19 Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: UDP N-acetylglucosamine acyltransferase
61	c2xzmG_	Alignment	not modelled	8.7	17 PDB header: ribosome Chain: G: PDB Molecule: ribosomal protein s7 containing protein; PDBTitle: crystal structure of the eukaryotic 40s ribosomal2 subunit in complex with initiation factor 1. this file3 contains the 40s subunit and initiation factor for4 molecule 1
62	c2iu9C_	Alignment	not modelled	8.6	23 PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine PDBTitle: chlamydia trachomatis lpxd with 100mm udpglcnac (complex ii)
63	d1jnpa_	Alignment	not modelled	8.6	26 Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
64	c1m4xC_	Alignment	not modelled	8.5	39 PDB header: virus Chain: C: PDB Molecule: pbcv-1 virus capsid; PDBTitle: pbcv-1 virus capsid, quasi-atomic model
65	c2vtwF_	Alignment	not modelled	8.4	32 PDB header: viral protein Chain: F: PDB Molecule: fiber protein 2; PDBTitle: structure of the c-terminal head domain of the fowl2 adenovirus type 1 short fibre
66	d2geca1	Alignment	not modelled	8.3	24 Fold: Coronavirus RNA-binding domain Superfamily: Coronavirus RNA-binding domain Family: Coronavirus RNA-binding domain
67	c3di4A_	Alignment	not modelled	8.3	25 PDB header: metal binding protein Chain: A: PDB Molecule: uncharacterized protein duf1989; PDBTitle: crystal structure of a duf1989 family protein (spo365) from2 silicibacter pomeroyi dss-3 at 1.60 a resolution
68	d1azpa_	Alignment	not modelled	7.9	17 Fold: SH3-like barrel Superfamily: Chromo domain-like Family: "Histone-like" proteins from archaea
69	d1a1xa_	Alignment	not modelled	7.9	21 Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
70	c3qx3B_	Alignment	not modelled	7.9	34 PDB header: isomerase/dna/isomerase inhibitor Chain: B: PDB Molecule: dna topoisomerase 2-beta; PDBTitle: human topoisomerase iibeta in complex with dna and etoposide
71	d1ufya_	Alignment	not modelled	7.8	13 Fold: Bacillus chorismate mutase-like Superfamily: YjgF-like Family: Chorismate mutase
72	d1flsa3	Alignment	not modelled	7.8	18 Fold: Hyaluronate lyase-like, C-terminal domain Superfamily: Hyaluronate lyase-like, C-terminal domain Family: Hyaluronate lyase-like, C-terminal domain
73	c3eevC_	Alignment	not modelled	7.8	26 PDB header: transferase Chain: C: PDB Molecule: chloramphenicol acetyltransferase; PDBTitle: crystal structure of chloramphenicol acetyltransferase vca0300 from2 vibrio cholerae o1 biovar eltor
74	d2oqea2	Alignment	not modelled	7.6	25 Fold: Cystatin-like Superfamily: Amine oxidase N-terminal region Family: Amine oxidase N-terminal region
75	d2pyta1	Alignment	not modelled	7.5	13 Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: EutQ-like
76	c3myxA_	Alignment	not modelled	7.5	16 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pspto_0244; PDBTitle: crystal structure of a pspto_0244 (protein with unknown function which2 belongs to pfam duf861 family) from pseudomonas syringae pv. tomato3 str. dc3000 at 1.30 a resolution
77	c3r0sA_	Alignment	not modelled	7.4	18 PDB header: transferase Chain: A: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n-acetylglucosamine o- PDBTitle: udp-n-acetylglucosamine acyltransferase from campylobacter jejuni
78	c2kssA_	Alignment	not modelled	7.3	31 PDB header: transcription regulator Chain: A: PDB Molecule: carotenogenesis protein cars; PDBTitle: nmr structure of myxococcus xanthus antirepressor cars1
79	c2gacA_	Alignment	not modelled	7.1	13 PDB header: hydrolase Chain: A: PDB Molecule: glycosylasparaginase; PDBTitle: t152c mutant glycosylasparaginase from flavobacterium2 meningosepticum
80	d1jsga_	Alignment	not modelled	7.1	26 Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
81	d1k8wa3	Alignment	not modelled	7.0	27 Fold: PUA domain-like Superfamily: PUA domain-like

					Family: PUA domain
82	d1w9pa2	Alignment	not modelled	7.0	18 Fold: FKBP-like Superfamily: Chitinase insertion domain Family: Chitinase insertion domain
83	c2j43A	Alignment	not modelled	7.0	16 PDB header: carbohydrate-binding module Chain: A: PDB Molecule: spyd; PDBTitle: alpha-glucan recognition by family 41 carbohydrate-binding2 modules from streptococcal virulence factors
84	d1jofa	Alignment	not modelled	7.0	13 Fold: 7-bladed beta-propeller Superfamily: 3-carboxy-cis,cis-mucoante lactonizing enzyme Family: 3-carboxy-cis,cis-mucoante lactonizing enzyme
85	c2l92A	Alignment	not modelled	6.9	44 PDB header: dna binding protein Chain: A: PDB Molecule: histone family protein nucleoid-structuring protein h-ns; PDBTitle: solution structure of the c-terminal domain of h-ns like protein bv3f
86	d1oi0a	Alignment	not modelled	6.9	15 Fold: Cytidine deaminase-like Superfamily: JAB1/MPN domain Family: JAB1/MPN domain
87	c7apiB	Alignment	not modelled	6.9	6 PDB header: proteinase inhibitor Chain: B: PDB Molecule: alpha 1-antitrypsin; PDBTitle: the s variant of human alpha1-antitrypsin, structure and implications2 for function and metabolism
88	c3i3aC	Alignment	not modelled	6.8	19 PDB header: transferase Chain: C: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n- PDBTitle: structural basis for the sugar nucleotide and acyl chain2 selectivity of leptospira interrogans lpxa
89	d2ax3a2	Alignment	not modelled	6.8	14 Fold: YjeF N-terminal domain-like Superfamily: YjeF N-terminal domain-like Family: YjeF N-terminal domain-like
90	c1jioE	Alignment	not modelled	6.8	22 PDB header: signaling protein Chain: E: PDB Molecule: neuroserpin; PDBTitle: crystal structure of mouse neuroserpin (cleaved form)
91	d1jiwi	Alignment	not modelled	6.8	15 Fold: Streptavidin-like Superfamily: beta-Barrel protease inhibitors Family: Metalloprotease inhibitor
92	c1n0nB	Alignment	not modelled	6.7	57 PDB header: oxidoreductase Chain: B: PDB Molecule: superoxide dismutase [mn]; PDBTitle: catalytic and structural effects of amino-acid substitution at his302 in human manganese superoxide dismutase
93	c3jqyB	Alignment	not modelled	6.7	30 PDB header: transferase Chain: B: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystal strucutre of the polysia specific acetyltransferase neuo
94	c3izbF	Alignment	not modelled	6.7	14 PDB header: ribosome Chain: F: PDB Molecule: 40s ribosomal protein rps5 (s7p); PDBTitle: localization of the small subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
95	c1y10C	Alignment	not modelled	6.7	32 PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenyl cyclase rv1264, holoenzyme, inhibited state
96	c1p7gL	Alignment	not modelled	6.6	43 PDB header: oxidoreductase Chain: L: PDB Molecule: superoxide dismutase; PDBTitle: crystal structure of superoxide dismutase from pyrobaculum2 aerophilum
97	d1ulva3	Alignment	not modelled	6.6	35 Fold: Immunoglobulin-like beta-sandwich Superfamily: CBD9-like Family: Glucodextranase, domain C
98	c1gn4B	Alignment	not modelled	6.6	43 PDB header: oxidoreductase Chain: B: PDB Molecule: superoxide dismutase; PDBTitle: h145e mutant of mycobacterium tuberculosis iron-superoxide2 dismutase.
99	c3dr2A	Alignment	not modelled	6.6	15 PDB header: hydrolase Chain: A: PDB Molecule: exported gluconolactonase; PDBTitle: structural and functional analyses of xc5397 from2 xanthomonas campestris: a gluconolactonase important in3 glucose secondary metabolic pathways