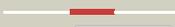
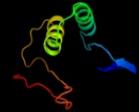
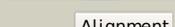
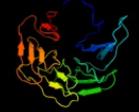
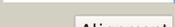
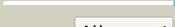
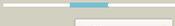
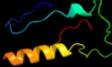
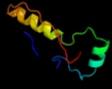


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P16919
Date	Wed Jan 25 15:20:40 GMT 2012
Unique Job ID	f54722af1d87bd4f

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	d1rypi_	 Alignment		46.2	20	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
3	d1x3za1	 Alignment		46.0	18	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
4	d1irua_	 Alignment		43.0	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
5	c3nqhA_	 Alignment		42.9	17	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase; PDBTitle: crystal structure of a glycosyl hydrolase (bt_2959) from bacteroides2 thetaiotaomicron vpi-5482 at 2.11 a resolution
6	c1j5qB_	 Alignment		37.5	25	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.
7	c1n7dA_	 Alignment		36.6	10	PDB header: lipid transport Chain: A: PDB Molecule: low-density lipoprotein receptor; PDBTitle: extracellular domain of the ldl receptor
8	d1j2pa_	 Alignment		33.2	19	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
9	c1m4xC_	 Alignment		30.7	29	PDB header: virus Chain: C: PDB Molecule: pbcv-1 virus capsid; PDBTitle: pbcv-1 virus capsid, quasi-atomic model
10	c3eswA_	 Alignment		30.5	18	PDB header: hydrolase Chain: A: PDB Molecule: peptide-n(4)-(n-acetyl-beta-glucosaminy)asparagine PDBTitle: complex of yeast pngase with glcnac2-iac.
11	c2ivzD_	 Alignment		30.3	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		28.5	26	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
13	d1wc9a_	Alignment		27.0	22	Fold: Ligand-binding domain in the NO signalling and Golgi transport Superfamily: Ligand-binding domain in the NO signalling and Golgi transport Family: TRAPP components
14	c3e5zA_	Alignment		26.8	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.
15	d1m3ya2	Alignment		26.1	29	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Group II dsDNA viruses VP Family: Major capsid protein vp54
16	c3mswA_	Alignment		24.3	17	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
17	c2cfhA_	Alignment		23.9	25	PDB header: transport Chain: A: PDB Molecule: trafficking protein particle complex subunit 3; PDBTitle: structure of the bet3-tpc6b core of trapp
18	c1rz2A_	Alignment		22.9	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved hypothetical protein ba4783; PDBTitle: 1.6a crystal structure of the protein ba4783/q81149 (similar to2 sortase b) from bacillus anthracis.
19	c3ifzA_	Alignment		22.7	25	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
20	c2x12A_	Alignment		22.4	27	PDB header: cell adhesion Chain: A: PDB Molecule: fimbriae-associated protein fap1; PDBTitle: ph-induced modulation of streptococcus parasanguinis2 adhesion by fap1 fimbriae
21	c3rwxA_	Alignment	not modelled	22.2	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
22	c2zcyM_	Alignment	not modelled	20.2	16	PDB header: hydrolase Chain: M: PDB Molecule: proteasome component pre4; PDBTitle: yeast 20s proteasome:syringolin a-complex
23	d1ryp2_	Alignment	not modelled	20.2	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
24	c1bqfA_	Alignment	not modelled	20.1	70	PDB header: hormone/growth factor Chain: A: PDB Molecule: protein (growth-blocking peptide); PDBTitle: growth-blocking peptide (gbp) from pseudaletia separata
25	d1rype_	Alignment	not modelled	19.9	17	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
26	c2kijA_	Alignment	not modelled	19.1	23	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
27	c2oryA_	Alignment	not modelled	18.3	16	PDB header: hydrolase Chain: A: PDB Molecule: lipase; PDBTitle: crystal structure of m37 lipase
28	c3bmxB_	Alignment	not modelled	17.8	38	PDB header: hydrolase Chain: B: PDB Molecule: uncharacterized lipoprotein ybbd; PDBTitle: beta-n-hexosaminidase (ybbd) from bacillus subtilis

29	d1ri9a_	Alignment	not modelled	17.3	24	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
30	c1ri9A_	Alignment	not modelled	17.3	24	PDB header: signaling protein Chain: A: PDB Molecule: fyn-binding protein; PDBTitle: structure of a helically extended sh3 domain of the t cell2 adapter protein adap
31	d1pk6c_	Alignment	not modelled	17.0	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
32	d1qwza_	Alignment	not modelled	16.4	18	Fold: Sortase Superfamily: Sortase Family: Sortase
33	c2ka3C_	Alignment	not modelled	15.7	36	PDB header: structural protein Chain: C: PDB Molecule: emilin-1; PDBTitle: structure of emilin-1 c1q-like domain
34	d1rh1a1	Alignment	not modelled	15.4	20	Fold: Cloacin translocation domain Superfamily: Cloacin translocation domain Family: Cloacin translocation domain
35	c3nzwH_	Alignment	not modelled	15.3	20	PDB header: hydrolase/hydrolase inhibitor Chain: H: PDB Molecule: proteasome component pup1; PDBTitle: crystal structure of the yeast 20s proteasome in complex with 2b
36	d2oqza1	Alignment	not modelled	15.1	15	Fold: Sortase Superfamily: Sortase Family: Sortase
37	d1bcga_	Alignment	not modelled	15.1	35	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Long-chain scorpion toxins
38	c2gacA_	Alignment	not modelled	15.1	16	PDB header: hydrolase Chain: A: PDB Molecule: glycosylasparaginase; PDBTitle: t152c mutant glycosylasparaginase from flavobacterium2 meningosepticum
39	c3h4pB_	Alignment	not modelled	15.0	17	PDB header: hydrolase Chain: B: PDB Molecule: proteasome subunit alpha; PDBTitle: proteasome 20s core particle from methanocaldococcus2 jannaschii
40	d1bcoa1	Alignment	not modelled	14.8	17	Fold: mu transposase, C-terminal domain Superfamily: mu transposase, C-terminal domain Family: mu transposase, C-terminal domain
41	c3lk6A_	Alignment	not modelled	14.7	38	PDB header: hydrolase Chain: A: PDB Molecule: lipoprotein ybbd; PDBTitle: beta-n-hexosaminidase n318d mutant (ybbd_n318d) from bacillus subtilis
42	d1pk6b_	Alignment	not modelled	14.7	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
43	d1iruc_	Alignment	not modelled	14.6	21	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
44	c3ilwA_	Alignment	not modelled	14.4	45	PDB header: isomerase Chain: A: PDB Molecule: dna gyrase subunit a; PDBTitle: structure of dna gyrase subunit a n-terminal domain
45	d1xata_	Alignment	not modelled	14.2	23	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
46	c2kkyA_	Alignment	not modelled	14.1	53	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein ecs2156; PDBTitle: solution structure of c-terminal domain of oxidized nleg2-3 (residue2 90-191) from pathogenic e. coli o157:h7. northeast structural3 genomics consortium and midwest center for structural genomics target4 et109a
47	d1rypc_	Alignment	not modelled	13.8	22	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
48	c3ghpA_	Alignment	not modelled	13.7	36	PDB header: structural protein Chain: A: PDB Molecule: cellulosomal scaffoldin adaptor protein b; PDBTitle: structure of the second type ii cohesin module from the2 adaptor scaa scaffoldin of acetivibrio cellulolyticus3 (including long c-terminal linker)
49	c1t3dB_	Alignment	not modelled	13.7	32	PDB header: transferase Chain: B: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of serine acetyltransferase from e.coli at 2.2a
50	d1c3ha_	Alignment	not modelled	13.5	31	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
51	c2novD_	Alignment	not modelled	13.4	19	PDB header: isomerase Chain: D: PDB Molecule: dna topoisomerase 4 subunit a; PDBTitle: breakage-reunion domain of s.pneumoniae topo iv: crystal2 structure of a gram-positive quinolone target
52	c2b59A_	Alignment	not modelled	13.2	24	PDB header: hydrolase/structural protein Chain: A: PDB Molecule: cog1196: chromosome segregation atpases; PDBTitle: the type ii cohesin dockerin complex
53	d1rypj_	Alignment	not modelled	13.0	15	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
54	c3vh0C_	Alignment	not modelled	12.9	9	PDB header: protein binding/dna Chain: C: PDB Molecule: uncharacterized protein ynce;

						PDBTitle: crystal structure of e. coli ynce complexed with dna
55	c1zvua_	Alignment	not modelled	12.9	24	PDB header: isomerase Chain: A: PDB Molecule: topoisomerase iv subunit a; PDBTitle: structure of the full-length e. coli parc subunit
56	c2gtjA_	Alignment	not modelled	12.7	18	PDB header: signaling protein Chain: A: PDB Molecule: fyn-binding protein; PDBTitle: reduced form of adap hsh3-n-domain
57	d1tyja1	Alignment	not modelled	12.6	27	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
58	d1zv9a1	Alignment	not modelled	12.6	36	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
59	d1irug_	Alignment	not modelled	12.5	12	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
60	c2xetB_	Alignment	not modelled	12.4	5	PDB header: transport protein Chain: B: PDB Molecule: f1 capsule-anchoring protein; PDBTitle: conserved hydrophobic clusters on the surface of the caf1a usher2 c-terminal domain are important for f1 antigen assembly
61	d1xaka_	Alignment	not modelled	12.4	44	Fold: Immunoglobulin-like beta-sandwich Superfamily: Accessory protein X4 (ORF8, ORF7a) Family: Accessory protein X4 (ORF8, ORF7a)
62	c2w8bB_	Alignment	not modelled	12.4	11	PDB header: protein transport/membrane protein Chain: B: PDB Molecule: protein tolB; PDBTitle: crystal structure of processed tolB in complex with pal
63	c2e5pA_	Alignment	not modelled	12.3	23	PDB header: transcription Chain: A: PDB Molecule: phd finger protein 1; PDBTitle: solution structure of the tudor domain of phd finger2 protein 1 (phf1 protein)
64	c3qx3B_	Alignment	not modelled	12.2	50	PDB header: isomerase/dna/isomerase inhibitor Chain: B: PDB Molecule: dna topoisomerase 2-beta; PDBTitle: human topoisomerase ii beta in complex with dna and etoposide
65	d1ng5a_	Alignment	not modelled	12.1	18	Fold: Sortase Superfamily: Sortase Family: Sortase
66	d1m7xa2	Alignment	not modelled	12.0	13	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: alpha-Amylases, C-terminal beta-sheet domain
67	c2wl2B_	Alignment	not modelled	11.8	22	PDB header: isomerase Chain: B: PDB Molecule: dna gyrase subunit a; PDBTitle: crystal structure of n-terminal domain of gyra with the2 antibiotic simocyclinone d8
68	c2iu9C_	Alignment	not modelled	11.7	23	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine PDBTitle: chlamydia trachomatis lpxd with 100mm udpglcnac (complex ii)
69	d1ab4a_	Alignment	not modelled	11.5	22	Fold: Type II DNA topoisomerase Superfamily: Type II DNA topoisomerase Family: Type II DNA topoisomerase
70	c1p4vA_	Alignment	not modelled	11.5	16	PDB header: hydrolase Chain: A: PDB Molecule: n(4)-(beta-n-acetylglucosaminyl)-l-asparaginase PDBTitle: crystal structure of the glycosylasparaginase precursor2 d151n mutant with glycine
71	c2wlqA_	Alignment	not modelled	11.4	24	PDB header: transferase Chain: A: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
72	d2jdqd1	Alignment	not modelled	11.4	15	Fold: PB2 C-terminal domain-like Superfamily: PB2 C-terminal domain-like Family: PB2 C-terminal domain-like
73	c2hc8A_	Alignment	not modelled	11.4	29	PDB header: transport protein Chain: A: PDB Molecule: cation-transporting atpase, p-type; PDBTitle: structure of the a. fulgidus copa a-domain
74	c2xkjE_	Alignment	not modelled	11.3	36	PDB header: isomerase Chain: E: PDB Molecule: topoisomerase iv; PDBTitle: crystal structure of catalytic core of a. baumannii topo iv2 (pare-parc fusion truncate)
75	c3fnkA_	Alignment	not modelled	11.3	25	PDB header: structural protein Chain: A: PDB Molecule: cellulosomal scaffoldin adaptor protein b; PDBTitle: crystal structure of the second type ii cohesin module from2 the cellulosomal adaptor scaa scaffoldin of acetivibrio3 cellulolyticus
76	d1bjta_	Alignment	not modelled	11.2	60	Fold: Type II DNA topoisomerase Superfamily: Type II DNA topoisomerase Family: Type II DNA topoisomerase
77	c1bjta_	Alignment	not modelled	11.2	60	PDB header: topoisomerase Chain: A: PDB Molecule: topoisomerase ii; PDBTitle: topoisomerase ii residues 409-1201
78	d1t3da_	Alignment	not modelled	11.2	32	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
79	c2vtwF_	Alignment	not modelled	11.2	27	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

80	c1yo4A_	Alignment	not modelled	11.1	47	PDB header: viral protein Chain: A: PDB Molecule: hypothetical protein x4; PDBTitle: solution structure of the sars coronavirus orf 7a coded x42 protein
81	c1hrlA_	Alignment	not modelled	11.0	60	PDB header: toxin Chain: A: PDB Molecule: paralytic peptide i; PDBTitle: structure of a paralytic peptide from an insect, manduca2 sexta
82	d1iruh_	Alignment	not modelled	10.9	12	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
83	d1j2qh_	Alignment	not modelled	10.8	25	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
84	d1iruk_	Alignment	not modelled	10.8	22	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
85	d1pk6a_	Alignment	not modelled	10.7	22	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
86	d1w7pd2	Alignment	not modelled	10.6	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
87	c3dr2A_	Alignment	not modelled	10.5	14	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
88	d1x38a2	Alignment	not modelled	10.5	25	Fold: Flavodoxin-like Superfamily: Beta-D-glucan exohydrolase, C-terminal domain Family: Beta-D-glucan exohydrolase, C-terminal domain
89	c2wh7A_	Alignment	not modelled	10.4	30	PDB header: hydrolase Chain: A: PDB Molecule: hyaluronidase-phage associated; PDBTitle: the partial structure of a group a streptococcal phage-2 encoded tail fibre hyaluronate lyase hylp2
90	d1rypd_	Alignment	not modelled	10.0	13	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
91	d1eaic_	Alignment	not modelled	9.9	25	Fold: Serine protease inhibitors Superfamily: Serine protease inhibitors Family: ATI-like
92	c2xk0A_	Alignment	not modelled	9.9	27	PDB header: transcription Chain: A: PDB Molecule: polycomb protein pcl; PDBTitle: solution structure of the tudor domain from drosophila2 polycomblike (pcl)
93	c2hh9A_	Alignment	not modelled	9.9	28	PDB header: transferase Chain: A: PDB Molecule: thiamin pyrophosphokinase; PDBTitle: thiamin pyrophosphokinase from candida albicans
94	d1krra_	Alignment	not modelled	9.8	21	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
95	d1o5ua_	Alignment	not modelled	9.8	11	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Hypothetical protein TM1112
96	d1o91a_	Alignment	not modelled	9.7	31	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
97	c1o91B_	Alignment	not modelled	9.7	31	PDB header: collagen Chain: B: PDB Molecule: collagen alpha 1(viii) chain; PDBTitle: crystal structure of a collagen viii nc1 domain trimer
98	d1jnpa_	Alignment	not modelled	9.7	26	Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
99	c7apiB_	Alignment	not modelled	9.6	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