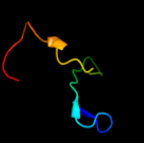
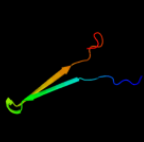
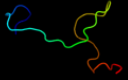
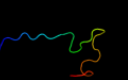
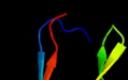


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P16916
Date	Wed Jan 25 15:20:39 GMT 2012
Unique Job ID	47ca9e2d682e1b9a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2oy7A_	 Alignment		95.2	16	PDB header: membrane protein Chain: A: PDB Molecule: outer surface protein a; PDBTitle: the crystal structure of ospa mutant
2	d1x3za1	 Alignment		52.2	19	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
3	d1ulva3	 Alignment		45.0	19	Fold: Immunoglobulin-like beta-sandwich Superfamily: CBD9-like Family: Glucodextranase, domain C
4	c1n7dA_	 Alignment		44.1	11	PDB header: lipid transport Chain: A: PDB Molecule: low-density lipoprotein receptor; PDBTitle: extracellular domain of the ldl receptor
5	c3eswa_	 Alignment		31.3	19	PDB header: hydrolase Chain: A: PDB Molecule: peptide-n(4)-(n-acetyl-beta-glucosaminyl)asparagine PDBTitle: complex of yeast pngase with glcnac2-iac.
6	c3mswA_	 Alignment		30.2	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a protein with unknown function (bf3112) from bacteroides fragilis nctc 9343 at 1.90 a resolution
7	d1oeva_	 Alignment		29.6	15	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: PB1 domain
8	d2f4ma1	 Alignment		29.4	18	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
9	c2ivzD_	 Alignment		26.0	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
10	c3rwxA_	 Alignment		24.5	21	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
11	c2w8bB_	 Alignment		23.3	12	PDB header: protein transport/membrane protein Chain: B: PDB Molecule: protein tolB; PDBTitle: crystal structure of processed tolB in complex with pal

12	c1mjeA	Alignment		23.3	28	PDB header: gene regulation/antitumor protein/dna Chain: A: PDB Molecule: breast cancer 2; PDBTitle: structure of a brca2-dss1-ssdna complex
13	c1miuA	Alignment		23.0	27	PDB header: gene regulation/antitumor protein Chain: A: PDB Molecule: breast cancer type 2 susceptibility protein; PDBTitle: structure of a brca2-dss1 complex
14	d1khda2	Alignment		22.8	35	Fold: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain Family: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain
15	c2kijA	Alignment		22.7	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
16	c2fz0A	Alignment		22.2	19	PDB header: membrane protein Chain: A: PDB Molecule: v-snare component of the vacuolar snare complex PDBTitle: identification of yeast r-snare nyv1p as a novel longin2 domain protein
17	c1j5qB	Alignment		21.5	26	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.
18	d1qs0b1	Alignment		18.8	32	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Branched-chain alpha-keto acid dehydrogenase Pyr module
19	d1o5ua	Alignment		18.5	8	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Hypothetical protein TM1112
20	d1bcga	Alignment		16.2	35	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Long-chain scorpion toxins
21	c2hc8A	Alignment	not modelled	15.5	30	PDB header: transport protein Chain: A: PDB Molecule: cation-transporting atpase, p-type; PDBTitle: structure of the a. fulgidus copa a-domain
22	c1iyjB	Alignment	not modelled	15.2	27	PDB header: gene regulation/antitumor protein Chain: B: PDB Molecule: breast cancer susceptibility; PDBTitle: structure of a brca2-dss1 complex
23	c3e5zA	Alignment	not modelled	14.0	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.
24	d1pk6c	Alignment	not modelled	14.0	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
25	d1ei5a1	Alignment	not modelled	13.9	32	Fold: Streptavidin-like Superfamily: D-aminopeptidase, middle and C-terminal domains Family: D-aminopeptidase, middle and C-terminal domains
26	c1dskA	Alignment	not modelled	13.6	100	PDB header: viral peptide Chain: A: PDB Molecule: vpr protein; PDBTitle: nmr solution structure of vpr59_86, 20 structures
27	c2kz5A	Alignment	not modelled	13.5	18	PDB header: transcription Chain: A: PDB Molecule: transcription factor nf-e2 45 kda subunit; PDBTitle: solution nmr structure of transcription factor nf-e2 subunit's dna2 binding domain from homo sapiens, northeast structural genomics3 consortium target hr4653b
28	d1miua3	Alignment	not modelled	13.4	23	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB

29	c2x12A_	Alignment	not modelled	13.2	23	PDB header: cell adhesion Chain: A: PDB Molecule: fimbriae-associated protein fap1; PDBTitle: ph-induced modulation of streptococcus parasanguinis2 adhesion by fap1 fimbriae
30	d1bcoa1	Alignment	not modelled	13.2	17	Fold: mu transposase, C-terminal domain Superfamily: mu transposase, C-terminal domain Family: mu transposase, C-terminal domain
31	d1vk8a_	Alignment	not modelled	13.1	14	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
32	c2ka3C_	Alignment	not modelled	13.0	36	PDB header: structural protein Chain: C: PDB Molecule: emilin-1; PDBTitle: structure of emilin-1 c1q-like domain
33	d1pzqa_	Alignment	not modelled	12.6	32	Fold: Dimerisation interlock Superfamily: Docking domain A of the erythromycin polyketide synthase (DEBS) Family: Docking domain A of the erythromycin polyketide synthase (DEBS)
34	d1pk6b_	Alignment	not modelled	12.5	27	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
35	d1iyjb3	Alignment	not modelled	12.4	23	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB
36	c2cseU_	Alignment	not modelled	12.2	19	PDB header: virus Chain: U: PDB Molecule: guanylyltransferase; PDBTitle: features of reovirus outer-capsid protein mu1 revealed by2 electron and image reconstruction of the virion at 7.0-a3 resolution
37	d2joya1	Alignment	not modelled	11.9	7	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal protein L14e
38	d1brwa3	Alignment	not modelled	11.6	26	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
39	d1lxna_	Alignment	not modelled	11.5	15	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
40	c3bmxB_	Alignment	not modelled	11.5	25	PDB header: hydrolase Chain: B: PDB Molecule: uncharacterized lipoprotein ybbd; PDBTitle: beta-n-hexosaminidase (ybbd) from bacillus subtilis
41	d1c3ha_	Alignment	not modelled	11.3	31	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
42	c3dczA_	Alignment	not modelled	11.2	21	PDB header: oxidoreductase Chain: A: PDB Molecule: putative rnfg subunit of electron transport complex; PDBTitle: crystal structure of a putative rnfg subunit of electron transport2 complex (tm0246) from thermotoga maritima at 1.65 a resolution
43	d1m3ya2	Alignment	not modelled	11.0	33	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Group II dsDNA viruses VP Family: Major capsid protein vp54
44	d1uerc2	Alignment	not modelled	10.9	20	Fold: Fe,Mn superoxide dismutase (SOD), C-terminal domain Superfamily: Fe,Mn superoxide dismutase (SOD), C-terminal domain Family: Fe,Mn superoxide dismutase (SOD), C-terminal domain
45	c1zrxA_	Alignment	not modelled	10.9	23	PDB header: antimicrobial protein, antibiotic Chain: A: PDB Molecule: stomoxyn; PDBTitle: solution structure of stomoxyn in h2o/tfe 50%
46	c3fnkA_	Alignment	not modelled	10.9	23	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
47	d2tpta3	Alignment	not modelled	10.7	26	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
48	c3izcN_	Alignment	not modelled	10.6	21	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
49	c2jpnA_	Alignment	not modelled	10.5	26	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent dna helicase uvsw; PDBTitle: solution structure of t4 bacteriophage helicase uvsw.1
50	c3h1sB_	Alignment	not modelled	10.2	15	PDB header: oxidoreductase Chain: B: PDB Molecule: superoxide dismutase; PDBTitle: crystal structure of superoxide dismutase from francisella tularensis2 subsp. tularensis schu s4
51	c3iz5N_	Alignment	not modelled	10.2	13	PDB header: ribosome Chain: N: PDB Molecule: 60s ribosomal protein l14 (l14e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
52	c1m4xC_	Alignment	not modelled	10.0	33	PDB header: virus Chain: C: PDB Molecule: pbcv-1 virus capsid; PDBTitle: pbcv-1 virus capsid, quasi-atomic model
53	c1tr1B_	Alignment	not modelled	10.0	19	PDB header: hydrolase (metalloprotease) Chain: B: PDB Molecule: thermolysin fragment 255 - 316; PDBTitle: nmr solution structure of the c-terminal fragment 255-3162 of thermolysin: a dimer formed by subunits having the3 native

					structure
54	d2pyta1	Alignment	not modelled	10.0	15 Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: EutQ-like
55	c2oajA	Alignment	not modelled	10.0	12 PDB header: endocytosis/exocytosis Chain: A: PDB Molecule: protein sni1; PDBTitle: crystal structure of sro7 from s. cerevisiae
56	c2jttD	Alignment	not modelled	9.9	36 PDB header: calcium binding protein/antitumor protei Chain: D: PDB Molecule: calcyclin-binding protein; PDBTitle: solution structure of calcium loaded s100a6 bound to c-2 terminal siah-1 interacting protein
57	d1lxja	Alignment	not modelled	9.5	12 Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
58	c3lk6A	Alignment	not modelled	9.3	25 PDB header: hydrolase Chain: A: PDB Molecule: lipoprotein ybbd; PDBTitle: beta-n-hexosaminidase n318d mutant (ybbd_n318d) from bacillus subtilis
59	c3jroA	Alignment	not modelled	9.1	13 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
60	c2gacA	Alignment	not modelled	9.1	13 PDB header: hydrolase Chain: A: PDB Molecule: glycosylasparaginase; PDBTitle: t152c mutant glycosylasparaginase from flavobacterium2 meningosepticum
61	d1sknp	Alignment	not modelled	9.0	11 Fold: A DNA-binding domain in eukaryotic transcription factors Superfamily: A DNA-binding domain in eukaryotic transcription factors Family: A DNA-binding domain in eukaryotic transcription factors
62	d1ejxc1	Alignment	not modelled	9.0	26 Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: alpha-Subunit of urease
63	d1dfma	Alignment	not modelled	8.9	47 Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Restriction endonuclease BglII
64	c2jtmA	Alignment	not modelled	8.9	29 PDB header: dna binding protein Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: solution structure of sso6901 from sulfolobus solfataricus2 p2
65	d1jnpa	Alignment	not modelled	8.7	24 Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
66	d1a1xa	Alignment	not modelled	8.7	19 Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
67	c3nv4A	Alignment	not modelled	8.7	28 PDB header: sugar binding protein Chain: A: PDB Molecule: galectin 9 short isoform variant; PDBTitle: crystal structure of human galectin-9 c-terminal crd in complex with2 sialyllactose
68	c2ksnA	Alignment	not modelled	8.6	18 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
69	d1pk6a	Alignment	not modelled	8.6	22 Fold: TNF-like Superfamily: TNF-like Family: TNF-like
70	c1bdeA	Alignment	not modelled	8.4	27 PDB header: aids Chain: A: PDB Molecule: vpr protein; PDBTitle: helical structure of polypeptides from the c-terminal half2 of hiv-1 vpr, nmr, 20 structures
71	c3nqhA	Alignment	not modelled	8.4	15 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
72	d2f1fa1	Alignment	not modelled	8.3	16 Fold: Ferredoxin-like Superfamily: ACT-like Family: IlvH-like
73	d1f00i2	Alignment	not modelled	8.3	33 Fold: Immunoglobulin-like beta-sandwich Superfamily: Invasin/intimin cell-adhesion fragments Family: Invasin/intimin cell-adhesion fragments
74	d1xata	Alignment	not modelled	8.3	21 Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
75	c2vtwF	Alignment	not modelled	8.2	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
76	c1gv3B	Alignment	not modelled	8.2	11 PDB header: manganese superoxide dismutase Chain: B: PDB Molecule: manganese superoxide dismutase; PDBTitle: the 2.0 angstrom resolution structure of the catalytic2 portion of a cyanobacterial membrane-bound manganese3 superoxide dismutase
77	c1dfwA	Alignment	not modelled	8.2	57 PDB header: immune system Chain: A: PDB Molecule: lung surfactant protein b; PDBTitle: conformational mapping of the n-terminal segment of2 surfactant protein b in lipid using 13c-enhanced fourier3 transform infrared spectroscopy (ftir)
78	d1x6va1	Alignment	not modelled	8.2	19 Fold: PUA domain-like Superfamily: PUA domain-like Family: ATP sulfurylase N-terminal domain
79	d2pc6a2	Alignment	not modelled	8.1	16 Fold: Ferredoxin-like Superfamily: ACT-like Family: IlvH-like

80	c2wlgA_	Alignment	not modelled	7.9	26	PDB header: transferase Chain: A: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
81	dle9yb1	Alignment	not modelled	7.9	26	Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: alpha-Subunit of urease
82	dlo91a_	Alignment	not modelled	7.9	31	Fold: TNF-like Superfamily: TNF-like Family: TNF-like
83	c1o91B_	Alignment	not modelled	7.9	31	PDB header: collagen Chain: B: PDB Molecule: collagen alpha 1(viii) chain; PDBTitle: crystal structure of a collagen viii nc1 domain trimer
84	c2iu9C_	Alignment	not modelled	7.8	23	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine PDBTitle: chlamydia trachomatis lpxd with 100mm udpglcnae (complex ii)
85	d2q09a1	Alignment	not modelled	7.8	80	Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: Imidazolonepropionase-like
86	d2jdqd1	Alignment	not modelled	7.7	20	Fold: PB2 C-terminal domain-like Superfamily: PB2 C-terminal domain-like Family: PB2 C-terminal domain-like
87	d2i5ua1	Alignment	not modelled	7.7	17	Fold: DnaD domain-like Superfamily: DnaD domain-like Family: DnaD domain
88	d1w9pa2	Alignment	not modelled	7.6	18	Fold: FKBP-like Superfamily: Chitinase insertion domain Family: Chitinase insertion domain
89	dljsga_	Alignment	not modelled	7.5	24	Fold: Oncogene products Superfamily: Oncogene products Family: Oncogene products
90	d2hqya2	Alignment	not modelled	7.5	19	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: FemXAB nonribosomal peptidyltransferases
91	dlazpa_	Alignment	not modelled	7.5	17	Fold: SH3-like barrel Superfamily: Chromo domain-like Family: "Histone-like" proteins from archaea
92	c2a03A_	Alignment	not modelled	7.5	17	PDB header: oxidoreductase Chain: A: PDB Molecule: fe-superoxide dismutase homolog; PDBTitle: superoxide dismutase protein from plasmodium berghei
93	c3cl5A_	Alignment	not modelled	7.4	20	PDB header: hydrolase Chain: A: PDB Molecule: hemagglutinin-esterase; PDBTitle: structure of coronavirus hemagglutinin-esterase in complex with 4,9-o-2 diacetyl sialic acid
94	dlr7aa1	Alignment	not modelled	7.4	36	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: alpha-Amylases, C-terminal beta-sheet domain
95	d1thqa_	Alignment	not modelled	7.4	50	Fold: Transmembrane beta-barrels Superfamily: OMPA-like Family: Outer membrane enzyme PagP
96	dlzaka2	Alignment	not modelled	7.4	33	Fold: Rubredoxin-like Superfamily: Microbial and mitochondrial ADK, insert "zinc finger" domain Family: Microbial and mitochondrial ADK, insert "zinc finger" domain
97	c2kjmA_	Alignment	not modelled	7.4	16	PDB header: rna binding protein Chain: A: PDB Molecule: histone rna hairpin-binding protein; PDBTitle: solution structure of slbp rna binding domain fragment
98	c1t3dB_	Alignment	not modelled	7.3	30	PDB header: transferase Chain: B: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of serine acetyltransferase from e.coli at 2.2a
99	dls6la1	Alignment	not modelled	7.3	44	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MerB N-terminal domain-like