




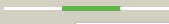







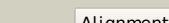


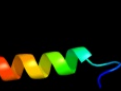





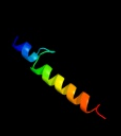

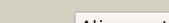





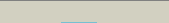


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P25798
Date	Thu Jan 5 11:42:39 GMT 2012
Unique Job ID	a0377b43ee3f9501

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2y9jt_	 Alignment		100.0	21	PDB header: protein transport Chain: T: PDB Molecule: protein prgh; PDBTitle: three-dimensional model of salmonella's needle complex at2 subnanometer resolution
2	c1yj7A_	 Alignment		100.0	24	PDB header: protein transport Chain: A: PDB Molecule: escj; PDBTitle: crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
3	c2hfvA_	 Alignment		92.5	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein rpa1041; PDBTitle: solution nmr structure of protein rpa1041 from pseudomonas2 aeruginosa. northeast structural genomics consortium3 target pat90.
4	d2hfva1	 Alignment		86.7	24	Fold: Ferredoxin-like Superfamily: GlnB-like Family: RPA1041-like
5	d1yqha1	 Alignment		80.7	13	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
6	d1lxna_	 Alignment		79.1	23	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
7	d1vk8a_	 Alignment		78.0	6	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
8	d1lxja_	 Alignment		77.8	17	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
9	d2iboal	 Alignment		71.4	8	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
10	c2epiA_	 Alignment		63.4	5	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0045 protein mj1052; PDBTitle: crystal structure pf hypothetical protein mj1052 from2 methanocaldococcus jannascii (form 2)
11	c2rddb_	 Alignment		60.4	19	PDB header: membrane protein/transport protein Chain: B: PDB Molecule: upf0092 membrane protein yajc; PDBTitle: x-ray crystal structure of acrb in complex with a novel2 transmembrane helix.

12	cloy8A_	 Alignment		54.5	12	PDB header: membrane protein Chain: A: PDB Molecule: acriflavine resistance protein b; PDBTitle: structural basis of multiple drug binding capacity of the acrb2 multidrug efflux pump
13	c2flzC_	 Alignment		53.9	12	PDB header: hydrolase Chain: C: PDB Molecule: cis-3-chloroacrylic acid dehalogenase; PDBTitle: the x-ray structure of cis-3-chloroacrylic acid dehalogenase (cis-2 caad) with a sulfate ion bound in the active site
14	d2yzca1	 Alignment		52.2	19	Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: Urate oxidase (uricase)
15	d1b6ga_	 Alignment		48.1	6	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Haloalkane dehalogenase
16	c2h7xA_	 Alignment		47.9	21	PDB header: hydrolase Chain: A: PDB Molecule: type i polyketide synthase pikaiv; PDBTitle: pikromycin thioesterase adduct with reduced triketide2 affinity label
17	d2h7xa1	 Alignment		41.8	21	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Thioesterase domain of polypeptide, polyketide and fatty acid synthases
18	c3g7sA_	 Alignment		40.8	22	PDB header: ligase Chain: A: PDB Molecule: long-chain-fatty-acid--coa ligase (fadd-1); PDBTitle: crystal structure of a long-chain-fatty-acid-coa ligase2 (fadd1) from archaeoglobus fulgidus
19	d2b61a1	 Alignment		40.4	18	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: O-acetyltransferase
20	c3hd7A_	 Alignment		37.8	18	PDB header: exocytosis Chain: A: PDB Molecule: vesicle-associated membrane protein 2; PDBTitle: helical extension of the neuronal snare complex into the membrane,2 spacegroup c 1 2 1
21	c3n4dF_	 Alignment	not modelled	36.4	16	PDB header: hydrolase Chain: F: PDB Molecule: putative tautomerase; PDBTitle: crystal structure of cg10062 inactivated by(r)-oxirane-2-carboxylate
22	d1cr6a2	 Alignment	not modelled	35.1	15	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Epoxide hydrolase
23	c1zhvA_	 Alignment	not modelled	33.7	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein atu0741; PDBTitle: x-ray crystal structure protein atu0741 from agobacterium tumefaciens.2 northeast structural genomics consortium target atr8.
24	c2xuaH_	 Alignment	not modelled	33.2	0	PDB header: hydrolase Chain: H: PDB Molecule: 3-oxoadipate enol-lactonase; PDBTitle: crystal structure of the enol-lactonase from burkholderia2 xenovorans lb400
25	d1otfa_	 Alignment	not modelled	33.0	14	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
26	d1zhva2	 Alignment	not modelled	32.8	19	Fold: Ferredoxin-like Superfamily: ACT-like Family: Atu0741-like
27	c3bf7B_	 Alignment	not modelled	32.5	26	PDB header: hydrolase Chain: B: PDB Molecule: esterase ybff; PDBTitle: 1.1 resolution structure of ybff, a new esterase from2 escherichia coli: a unique substrate-binding crevice3 generated by domain arrangement
28	c3etcB_	 Alignment	not modelled	31.7	14	PDB header: ligase Chain: B: PDB Molecule: amp-binding protein; PDBTitle: 2.1 a structure of acyl-adenylate synthetase from

						methanosarcina2 acetivorans containing a link between lys256 and cys298
29	dlgksa_	Alignment	not modelled	30.1	10	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
30	d1r3da_	Alignment	not modelled	29.8	19	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Hypothetical protein VC1974
31	c2yzbA_	Alignment	not modelled	29.3	19	PDB header: oxidoreductase Chain: A: PDB Molecule: uricase; PDBTitle: crystal structure of uricase from arthrobacter globiformis2 in complex with uric acid (substrate)
32	c3lcrA_	Alignment	not modelled	28.7	12	PDB header: hydrolase Chain: A: PDB Molecule: tautomycetin biosynthetic pks; PDBTitle: thioesterase from tautomycetin biosynthetic pathway
33	c2aj1A_	Alignment	not modelled	28.5	28	PDB header: hydrolase Chain: A: PDB Molecule: probable cadmium-transporting atpase; PDBTitle: solution structure of apocada
34	d1ic8a2	Alignment	not modelled	28.2	15	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: POU-specific domain
35	c3l80A_	Alignment	not modelled	27.0	9	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein smu.1393c; PDBTitle: crystal structure of smu.1393c from streptococcus mutans ua159
36	c3gacD_	Alignment	not modelled	26.8	13	PDB header: cytokine Chain: D: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: structure of mif with hpp
37	c1y37A_	Alignment	not modelled	26.8	21	PDB header: hydrolase Chain: A: PDB Molecule: fluoroacetate dehalogenase; PDBTitle: structure of fluoroacetate dehalogenase from burkholderia sp. fa1
38	d1qlwa_	Alignment	not modelled	26.2	39	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: A novel bacterial esterase
39	d1bjpa_	Alignment	not modelled	26.1	25	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
40	c2kncB_	Alignment	not modelled	25.9	30	PDB header: cell adhesion Chain: B: PDB Molecule: integrin beta-3; PDBTitle: platelet integrin alfa1iib-beta3 transmembrane-cytoplasmic2 heterocomplex
41	c3fwtA_	Alignment	not modelled	25.6	15	PDB header: cytokine Chain: A: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: crystal structure of leishmania major mif2
42	d1pg4a_	Alignment	not modelled	25.6	17	Fold: Acetyl-CoA synthetase-like Superfamily: Acetyl-CoA synthetase-like Family: Acetyl-CoA synthetase-like
43	c3ol4B_	Alignment	not modelled	25.5	23	PDB header: unknown function Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a putative uncharacterized protein from2 mycobacterium smegmatis, an ortholog of rv0543c
44	d1mo2a_	Alignment	not modelled	25.3	22	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Thioesterase domain of polypeptide, polyketide and fatty acid synthases
45	c1mo2A_	Alignment	not modelled	25.3	22	PDB header: transferase Chain: A: PDB Molecule: erythronolide synthase, modules 5 and 6; PDBTitle: thioesterase domain from 6-deoxyerythronolide synthase2 (debs te), ph 8.5
46	c3ry0A_	Alignment	not modelled	25.1	25	PDB header: isomerase Chain: A: PDB Molecule: putative tautomerase; PDBTitle: crystal structure of tomn, a 4-oxalocrotonate tautomerase homologue in2 tomaymycin biosynthetic pathway
47	c3fobA_	Alignment	not modelled	25.1	0	PDB header: oxidoreductase Chain: A: PDB Molecule: bromoperoxidase; PDBTitle: crystal structure of bromoperoxidase from bacillus anthracis
48	d2rhwa1	Alignment	not modelled	24.7	0	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Carbon-carbon bond hydrolase
49	c1j2gC_	Alignment	not modelled	24.6	10	PDB header: oxidoreductase Chain: C: PDB Molecule: uricase; PDBTitle: crystal structure of urate oxidase from bacillus sp. tb-90 co-2 crystallized with 8-azaxanthine
50	c2xmzA_	Alignment	not modelled	24.6	10	PDB header: lyase Chain: A: PDB Molecule: hydrolase, alpha/beta hydrolase fold family; PDBTitle: structure of menh from s. aureus
51	c2vavL_	Alignment	not modelled	24.3	13	PDB header: transferase Chain: L: PDB Molecule: acetyl-coa--deacetylcephalosporin c PDBTitle: crystal structure of deacetylcephalosporin c2 acetyltransferase (dac-soak)
52	d2hmfA2	Alignment	not modelled	23.0	8	Fold: Ferredoxin-like Superfamily: ACT-like Family: Aspartokinase allosteric domain-like
53	c2xczA_	Alignment	not modelled	22.5	13	PDB header: immune system Chain: A: PDB Molecule: possible atls1-like light-inducible protein; PDBTitle: crystal structure of macrophage migration inhibitory factor2 homologue from prochlorococcus marinus
54	d1u1a1	Alignment	not modelled	22.3	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains

54	d1u1da1	Alignment	not modelled	22.9	42	Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain PDB header: isomerase
55	c2op8A	Alignment	not modelled	21.8	33	Chain: A: PDB Molecule: probable tautomerase ywhb; PDBTitle: crystal structure of ywhb- homologue of 4-oxalocrotonate tautomerase
56	d1uaaa2	Alignment	not modelled	21.6	20	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
57	c2kt2A	Alignment	not modelled	21.4	22	PDB header: oxidoreductase Chain: A: PDB Molecule: mercuric reductase; PDBTitle: structure of nmera, the n-terminal hma domain of tn501 mercuric2 reductase
58	d1eh1a	Alignment	not modelled	21.0	16	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Ribosome recycling factor, RRF Family: Ribosome recycling factor, RRF
59	d2vata1	Alignment	not modelled	20.8	13	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: O-acetyltransferase
60	c1yy7A	Alignment	not modelled	20.4	21	PDB header: transcription Chain: A: PDB Molecule: stringent starvation protein a; PDBTitle: crystal structure of stringent starvation protein a (sspa), 2 an rna polymerase-associated transcription factor
61	d1is1a	Alignment	not modelled	20.3	11	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Ribosome recycling factor, RRF Family: Ribosome recycling factor, RRF
62	c1cr6A	Alignment	not modelled	20.2	18	PDB header: hydrolase Chain: A: PDB Molecule: epoxide hydrolase; PDBTitle: crystal structure of murine soluble epoxide hydrolase2 complexed with cpu inhibitor
63	c2ronA	Alignment	not modelled	20.1	20	PDB header: hydrolase Chain: A: PDB Molecule: surfactin synthetase thioesterase subunit; PDBTitle: the external thioesterase of the surfactin-synthetase
64	d1dd5a	Alignment	not modelled	20.0	5	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Ribosome recycling factor, RRF Family: Ribosome recycling factor, RRF
65	c3mlcC	Alignment	not modelled	20.0	13	PDB header: isomerase Chain: C: PDB Molecule: fg41 malonate semialdehyde decarboxylase; PDBTitle: crystal structure of fg41msad inactivated by 3-chloropropiolate
66	c2kkhA	Alignment	not modelled	19.8	17	PDB header: metal transport Chain: A: PDB Molecule: putative heavy metal transporter; PDBTitle: structure of the zinc binding domain of the atpase hma4
67	d1w36b2	Alignment	not modelled	19.7	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
68	d1z3ea1	Alignment	not modelled	19.4	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: ArsC-like
69	d1uk8a	Alignment	not modelled	19.1	5	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Carbon-carbon bond hydrolase
70	c2cjpA	Alignment	not modelled	18.7	21	PDB header: hydrolase Chain: A: PDB Molecule: epoxide hydrolase; PDBTitle: structure of potato (solanum tuberosum) epoxide hydrolase i2 (steh1)
71	d1ek8a	Alignment	not modelled	18.7	13	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Ribosome recycling factor, RRF Family: Ribosome recycling factor, RRF
72	c2f06B	Alignment	not modelled	18.3	6	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: conserved hypothetical protein; PDBTitle: crystal structure of protein bt0572 from bacteroides thetaiotaomicron
73	c3qyiB	Alignment	not modelled	18.2	11	PDB header: hydrolase Chain: B: PDB Molecule: alr0039 protein; PDBTitle: crystal structure of alr0039, a putative alpha/beta hydrolase from2 nostoc sp pcc 7120.
74	c2rogA	Alignment	not modelled	18.2	16	PDB header: metal binding protein Chain: A: PDB Molecule: heavy metal binding protein; PDBTitle: solution structure of thermus thermophilus hb8 ttha17182 protein in living e. coli cells
75	c3b64A	Alignment	not modelled	18.2	14	PDB header: cytokine Chain: A: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: macrophage migration inhibitory factor (mif) from2 /leishmania major
76	d1a8qa	Alignment	not modelled	18.0	13	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Haloperoxidase
77	c3h3yF	Alignment	not modelled	17.8	12	PDB header: viral protein Chain: F: PDB Molecule: baseplate structural protein gp6; PDBTitle: fitting of the gp6 crystal structure into 3d cryo-em2 reconstruction of bacteriophage t4 star-shaped baseplate
78	c3a2nF	Alignment	not modelled	17.4	11	PDB header: hydrolase Chain: F: PDB Molecule: haloalkane dehalogenase; PDBTitle: crystal structure of dbja (wild type type ii p21)
79	c2g29A	Alignment	not modelled	17.3	10	PDB header: transport protein Chain: A: PDB Molecule: nitrate transport protein nrta; PDBTitle: crystal structure of the periplasmic nitrate-binding2 protein nrta from synechocystis pcc 6803
						Fold: Ferredoxin-like

80	dlosda_	Alignment	not modelled	17.2	17	Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
81	c2k2pA_	Alignment	not modelled	17.1	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1203; PDBTitle: solution nmr structure of protein atu1203 from agrobacterium2 tumefaciens. northeast structural genomics consortium (nesg) target3 att10, ontario center for structural proteomics target atc1183
82	c3l78A_	Alignment	not modelled	17.0	17	PDB header: transcription Chain: A: PDB Molecule: regulatory protein spx; PDBTitle: the crystal structure of smu.1142c from streptococcus mutans ua159
83	d1gyxa_	Alignment	not modelled	17.0	16	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
84	c3mb2G_	Alignment	not modelled	17.0	25	PDB header: isomerase Chain: G: PDB Molecule: 4-oxalocrotonate tautomerase family enzyme - alpha subunit; PDBTitle: kinetic and structural characterization of a heterohexamer 4-2 oxalocrotonate tautomerase from chloroflexus aurantiacus j-10-fl:3 implications for functional and structural diversity in the4 tautomerase superfamily
85	d1sb6a_	Alignment	not modelled	16.6	10	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
86	d2aw0a_	Alignment	not modelled	16.4	33	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
87	c2dahA_	Alignment	not modelled	16.2	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ubiquilin-3; PDBTitle: solution structure of the c-terminal uba domain in the2 human ubiquilin 3
88	c2l3mA_	Alignment	not modelled	16.2	21	PDB header: metal binding protein Chain: A: PDB Molecule: copper-ion-binding protein; PDBTitle: solution structure of the putative copper-ion-binding protein from2 bacillus anthracis str. ames
89	d2qifa1	Alignment	not modelled	16.1	16	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
90	d2pl5a1	Alignment	not modelled	16.1	6	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: O-acetyltransferase
91	d2ddha2	Alignment	not modelled	16.0	23	Fold: Bromodomain-like Superfamily: Acyl-CoA dehydrogenase C-terminal domain-like Family: acyl-CoA oxidase C-terminal domains
92	d1q8la_	Alignment	not modelled	16.0	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
93	c1yg0A_	Alignment	not modelled	16.0	17	PDB header: metal transport Chain: A: PDB Molecule: cop associated protein; PDBTitle: solution structure of apo-copp from helicobacter pylori
94	d1n6za_	Alignment	not modelled	15.8	15	Fold: Hypothetical protein Yml108w Superfamily: Hypothetical protein Yml108w Family: Hypothetical protein Yml108w
95	c1sr9A_	Alignment	not modelled	15.7	22	PDB header: transferase Chain: A: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of leua from mycobacterium tuberculosis
96	c2l9bA_	Alignment	not modelled	15.6	19	PDB header: transcription Chain: A: PDB Molecule: mrna 3'-end-processing protein rna15; PDBTitle: heterodimer between rna14p monkeytail domain and rna15p hinge domain2 of the yeast cf ia complex
97	c3fsgC_	Alignment	not modelled	15.6	5	PDB header: hydrolase Chain: C: PDB Molecule: alpha/beta superfamily hydrolase; PDBTitle: crystal structure of alpha/beta superfamily hydrolase from oenococcus2 oeni psu-1
98	d1pyya1	Alignment	not modelled	15.4	13	Fold: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Superfamily: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Family: Penicillin-binding protein 2x (pbp-2x), c-terminal domain
99	d2i52a1	Alignment	not modelled	15.4	17	Fold: MK0786-like Superfamily: MK0786-like Family: MK0786-like