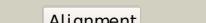
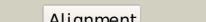
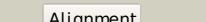


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P33599
Date	Thu Jan 5 11:52:22 GMT 2012
Unique Job ID	59ea08c71b61b1b6

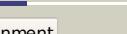
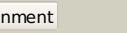
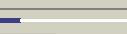
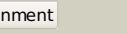
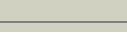
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2fug41	 Alignment		100.0	42	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nqo4-like
2	c2fug4_	 Alignment		100.0	42	PDB header: oxidoreductase Chain: 4; PDB Molecule: nadh-quinone oxidoreductase chain 4; PDBTitle: crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
3	d1frfl_	 Alignment		100.0	15	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit
4	d1e3db_	 Alignment		100.0	16	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit
5	d1yq9h1	 Alignment		100.0	15	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit
6	c1h2aL_	 Alignment		100.0	14	PDB header: oxidoreductase Chain: L; PDB Molecule: hydrogenase; PDBTitle: single crystals of hydrogenase from desulfovibrio vulgaris
7	c2wpnB_	 Alignment		100.0	19	PDB header: oxidoreductase Chain: B; PDB Molecule: periplasmic [nifese] hydrogenase, large subunit, PDBTitle: structure of the oxidised, as-isolated nifese hydrogenase2 from d. vulgaris hildenborough
8	d1cc1l_	 Alignment		100.0	17	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit
9	c3myrB_	 Alignment		100.0	16	PDB header: oxidoreductase Chain: B; PDB Molecule: nickel-dependent hydrogenase large subunit; PDBTitle: crystal structure of [nife] hydrogenase from allochromatium vinosum in its ni-a state
10	d1wui1	 Alignment		100.0	15	Fold: HydB/Nqo4-like Superfamily: HydB/Nqo4-like Family: Nickel-iron hydrogenase, large subunit
11	d2fug51	 Alignment		100.0	34	Fold: Nqo5-like Superfamily: Nqo5-like Family: Nqo5-like

12	c3mcrA		100.0	29	PDB header: oxidoreductase Chain: A: PDB Molecule: nhad dehydrogenase, subunit c; PDBTitle: crystal structure of nadh dehydrogenase subunit c (tfu_2693) from2 thermobifida fusca yx-er1 at 2.65 a resolution	
13	d1v97a4		45.2	2	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like	
14	c2ibpB		29.2	15	PDB header: transferase Chain: B: PDB Molecule: citrate synthase; PDBTitle: crystal structure of citrate synthase from pyrobaculum aerophilum	
15	d1ghha		25.7	15	Fold: DNA damage-inducible protein DinI Superfamily: DNA damage-inducible protein DinI Family: DNA damage-inducible protein DinI	
16	d1ffvc1		24.6	10	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like	
17	d2ntka1		23.4	23	Fold: Ntn hydrolase-like Superfamily: Archaeal IMP cyclohydrolase PurO Family: Archaeal IMP cyclohydrolase PurO	
18	c1ufiD		23.3	40	PDB header: dna binding protein Chain: D: PDB Molecule: major centromere autoantigen b; PDBTitle: crystal structure of the dimerization domain of human cenp-b	
19	d1ufia		23.0	40	Fold: ROP-like Superfamily: Dimerisation domain of CENP-B Family: Dimerisation domain of CENP-B	
20	d2qswa1		21.4	14	Fold: Ferrodoxin-like Superfamily: ACT-like Family: NIL domain-like	
21	d2zpya3	Alignment	not modelled	20.3	9	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: First domain of FERM
22	d1ni2a3	Alignment	not modelled	19.6	10	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: First domain of FERM
23	d2qrra1	Alignment	not modelled	19.4	13	Fold: Ferrodoxin-like Superfamily: ACT-like Family: NIL domain-like
24	d1ef1a3	Alignment	not modelled	19.0	9	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: First domain of FERM
25	c2w3zA	Alignment	not modelled	18.6	7	PDB header: hydrolase Chain: A: PDB Molecule: putative deacetylase; PDBTitle: structure of a streptococcus mutans ce4 esterase
26	d2c5sa2	Alignment	not modelled	18.4	10	Fold: THUMP domain Superfamily: THUMP domain-like Family: THUMP domain
27	d1vgza1	Alignment	not modelled	16.8	17	Fold: SufE/NifU Superfamily: SufE/NifU Family: SP1160 C-terminal domain-like
28	c2dgxA	Alignment	not modelled	16.6	9	PDB header: translation Chain: A: PDB Molecule: mgc11102 protein; PDBTitle: solution structure of the eukaryotic initiation factor 1a2 in mgc11102 protein
29	c3bfwy	Alignment	not modelled	16.0	36	PDB header: structural genomics, unknown function Chain: X: PDB Molecule: uncharacterized protein;

29	c2nwa	Alignment	not modelled	10.0	50	PDBTitle: uncharacterized protein rv0674 from mycobacterium tuberculosis PDB header: unknown function Chain: B: PDB Molecule: pyruvate formate-lyase 2; PDBTitle: crystal structure of a glycyl radical enzyme from archaeoglobus2 fulgidus
30	c2f3oB	Alignment	not modelled	15.9	18	PDB header: unknown function Chain: A: PDB Molecule: conserved hypothetical protein; PDBTitle: crystal structure of a duf162 family protein (dr_1909) from2 deinococcus radiodurans at 1.70 a resolution
31	c2g40A	Alignment	not modelled	15.4	29	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: YkgG-like
32	d2g40a1	Alignment	not modelled	15.4	29	Fold: TolA/TonB C-terminal domain Superfamily: TolA/TonB C-terminal domain Family: TonB
33	d1u07a	Alignment	not modelled	15.4	7	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a hypothetical protein from helicobacter pylori
34	c3kwIA	Alignment	not modelled	15.3	18	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: First domain of FERM
35	d1gg3a3	Alignment	not modelled	15.2	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ttha1053; PDBTitle: crystal structure of a conserved hypothetical protein tt1547 from2 thermus thermophilus hb8
36	c2cveA	Alignment	not modelled	14.4	6	PDB header: oxidoreductase Chain: C: PDB Molecule: nicotinate dehydrogenase fad-subunit; PDBTitle: crystal structure of nicotinate dehydrogenase
37	c3hrdC	Alignment	not modelled	14.1	12	PDB header: transport protein Chain: A: PDB Molecule: acyl carrier protein; PDBTitle: solution structure of rsgt ruh-059, an acp domain of acyl2 carrier protein, mitochondrial [precursor] from human cdna
38	c2dnwA	Alignment	not modelled	12.9	17	PDB header: translation Chain: A: PDB Molecule: putative translation initiation factor eif-1a; PDBTitle: crystal structure of putative cryptosporidium parvum translation2 initiation factor eif-1a
39	c2oqkA	Alignment	not modelled	12.8	6	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein st2180; PDBTitle: crystal structure of uncharacterized protein st2180 from sulfolobus2 tokodaii
40	c1wvtA	Alignment	not modelled	12.6	11	PDB header: metal transport Chain: C: PDB Molecule: protein tonb; PDBTitle: crystal structure of tonb in complex with fhua, e. coli2 outer membrane receptor for ferrichrome
41	c2grxC	Alignment	not modelled	12.0	4	Fold: Ferredoxin-like Superfamily: ACT-like Family: NIL domain-like
42	d3dhxa1	Alignment	not modelled	11.8	16	PDB header: hormone receptor Chain: A: PDB Molecule: parathyroid hormone receptor; PDBTitle: pth receptor n-terminus fragment, nmr, 1 structure
43	c1bl1A	Alignment	not modelled	11.7	38	PDB header: rna-binding protein Chain: A: PDB Molecule: probable thiamine biosynthesis protein thiI; PDBTitle: crystal structure of bacillus anthracis thiI, a trna-2 modifying enzyme containing the predicted rna-binding3 thumb domain
44	c2c5sA	Alignment	not modelled	11.5	10	PDB header: transcription, transcription regulation Chain: C: PDB Molecule: 25-mer fragment of protein armr; PDBTitle: the marr-family repressor mexr in complex with its antirepressor armr
45	c3echC	Alignment	not modelled	11.1	55	Fold: Ferritin-like Superfamily: Cobalamin adenosyltransferase-like Family: Cobalamin adenosyltransferase
46	d1rtya	Alignment	not modelled	10.7	10	Fold: PFL-like glycyl radical enzymes Superfamily: PFL-like glycyl radical enzymes Family: PFL-like
47	d1r9da	Alignment	not modelled	10.6	15	Fold: TolA/TonB C-terminal domain Superfamily: TolA/TonB C-terminal domain Family: TonB
48	d2gskb1	Alignment	not modelled	10.4	4	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0368 protein ypl225w; PDBTitle: a novel solution nmr structure of protein yst0336 from2 saccharomyces cerevisiae. northeast structural genomics3 consortium target yt51/onario centre for structural4 proteomics target yst0336
49	c2jynA	Alignment	not modelled	10.0	16	Fold: EV matrix protein Superfamily: EV matrix protein Family: EV matrix protein
50	d1es6a2	Alignment	not modelled	10.0	55	PDB header: viral protein Chain: A: PDB Molecule: matrix protein vp40; PDBTitle: crystal structure of the matrix protein of ebola virus
51	c1es6A	Alignment	not modelled	9.8	55	PDB header: transport protein Chain: A: PDB Molecule: tonb protein; PDBTitle: solution structure of escherichia coli tonb-ctd
52	c1xx3A	Alignment	not modelled	9.7	3	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
53	d1gxma	Alignment	not modelled	9.5	25	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like
54	d1n62c1	Alignment	not modelled	9.0	9	

55	c3k1dA_		Alignment	not modelled	8.6	23	PDB header: transferase Chain: A: PDB Molecule: 1,4-alpha-glucan-branched enzyme; PDBTitle: crystal structure of glycogen branching enzyme synonym: 1,4-alpha-d-2 glucan:1,4-alpha-d-glucan 6-glucosyl-transferase from mycobacterium3 tuberculosis h37rv
56	d1d7qa_		Alignment	not modelled	8.6	5	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
57	d1x2ga1		Alignment	not modelled	8.5	19	Fold: SufE/NifU Superfamily: SufE/NifU Family: SP1160 C-terminal domain-like
58	d1yeya2		Alignment	not modelled	8.1	14	Fold: Enolase N-terminal domain-like Superfamily: Enolase N-terminal domain-like Family: Enolase N-terminal domain-like
59	d1jt8a_		Alignment	not modelled	7.3	20	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
60	c2fq2A_		Alignment	not modelled	7.3	12	PDB header: lipid transport Chain: A: PDB Molecule: acyl carrier protein; PDBTitle: solution structure of minor conformation of holo-acyl2 carrier protein from malaria parasite plasmodium falciparum
61	d2oeza1		Alignment	not modelled	7.3	8	Fold: YacF-like Superfamily: YacF-like Family: YacF-like
62	d1h4ra3		Alignment	not modelled	7.2	11	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: First domain of FERM
63	c2kw0A_		Alignment	not modelled	7.0	12	PDB header: oxidoreductase Chain: A: PDB Molecule: ccmh protein; PDBTitle: solution structure of n-terminal domain of ccmh from escherichia.coli
64	d3ceda1		Alignment	not modelled	7.0	16	Fold: Ferredoxin-like Superfamily: ACT-like Family: NIL domain-like
65	c2zhzC_		Alignment	not modelled	7.0	8	PDB header: transferase Chain: C: PDB Molecule: atp:cob(i)alamin adenosyltransferase, putative; PDBTitle: crystal structure of a pduo-type atp:cobalamin adenosyltransferase2 from burkholderia thailandensis
66	c2l9fA_		Alignment	not modelled	7.0	9	PDB header: transferase Chain: A: PDB Molecule: cale8; PDBTitle: nmr solution structure of meacp
67	d1vi7a2		Alignment	not modelled	6.9	12	Fold: Ferredoxin-like Superfamily: EF-G C-terminal domain-like Family: YigZ C-terminal domain-like
68	c1vi7A_		Alignment	not modelled	6.8	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yigz; PDBTitle: crystal structure of an hypothetical protein
69	c2hl7A_		Alignment	not modelled	6.5	18	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c-type biogenesis protein ccmh; PDBTitle: crystal structure of the periplasmic domain of ccmh from pseudomonas2 aeruginosa
70	d1jroa3		Alignment	not modelled	6.5	17	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like
71	c2p4vA_		Alignment	not modelled	6.5	15	PDB header: transcription Chain: A: PDB Molecule: transcription elongation factor greb; PDBTitle: crystal structure of the transcript cleavage factor, greb2 at 2.6a resolution
72	c2fq8A_		Alignment	not modelled	6.4	36	PDB header: unknown function Chain: A: PDB Molecule: 2f; PDBTitle: nmr structure of 2f associated with lipid disc
73	c2fq5A_		Alignment	not modelled	6.4	36	PDB header: unknown function Chain: A: PDB Molecule: peptide 2f; PDBTitle: nmr structure of 2f associated with lipid disc
74	d7mdha2		Alignment	not modelled	6.3	0	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
75	c1hucC_		Alignment	not modelled	6.3	18	PDB header: thiol protease Chain: C: PDB Molecule: cathepsin b; PDBTitle: the refined 2.15 angstroms x-ray crystal structure of human2 liver cathepsin b: the structural basis for its specificity
76	c3sc0A_		Alignment	not modelled	6.3	25	PDB header: oxidoreductase Chain: A: PDB Molecule: methylmalonic aciduria and homocystinuria type c protein; PDBTitle: crystal structure of mmachc (1-238), a human b12 processing enzyme,2 complexed with methylcobalamin
77	d1v8ca2		Alignment	not modelled	6.2	20	Fold: TBP-like Superfamily: MoaD-related protein, C-terminal domain Family: MoaD-related protein, C-terminal domain
78	d2up1a2		Alignment	not modelled	6.1	19	Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: Canonical RBD
79	c2ochA_		Alignment	not modelled	6.1	38	PDB header: chaperone Chain: A: PDB Molecule: hypothetical protein dnj-12; PDBTitle: j-domain of dnj-12 from caenorhabditis elegans
80	c2vgpD_		Alignment	not modelled	6.1	28	PDB header: transferase Chain: D: PDB Molecule: inner centromere protein a; PDBTitle: crystal structure of aurora b kinase in complex with a2 aminothiazole inhibitor

81	d1uptd		Alignment	not modelled	6.1	31	Fold: GRIP domain Superfamily: GRIP domain Family: GRIP domain
82	d2jeka1		Alignment	not modelled	6.0	19	Fold: Rv1873-like Superfamily: Rv1873-like Family: Rv1873-like
83	d2r4qa1		Alignment	not modelled	6.0	12	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system: Fructose specific IIB subunit-like
84	c2e5aA		Alignment	not modelled	5.9	8	PDB header: ligase Chain: A: PDB Molecule: lipoyltransferase 1; PDBTitle: crystal structure of bovine lipoyltransferase in complex2 with lipoyl-amp
85	d1t3qc1		Alignment	not modelled	5.9	8	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: CO dehydrogenase flavoprotein C-terminal domain-like Family: CO dehydrogenase flavoprotein C-terminal domain-like
86	c2l4ba		Alignment	not modelled	5.8	8	PDB header: transferase Chain: A: PDB Molecule: acyl carrier protein; PDBTitle: solution structure of a putative acyl carrier protein from anaplasma2 phagocytophilum. seattle structural genomics center for infectious3 disease target alpha.01018.a
87	c2kcia		Alignment	not modelled	5.8	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative acyl carrier protein; PDBTitle: solution nmr structure of gmet_2339 from geobacter2 metallireducens. northeast structural genomics consortium3 target gmr141
88	d2q22a1		Alignment	not modelled	5.8	13	Fold: Ava3019-like Superfamily: Ava3019-like Family: Ava3019-like
89	c2pt7G		Alignment	not modelled	5.7	13	PDB header: hydrolase/protein binding Chain: G: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of cag virb11 (hp0525) and an inhibitory protein2 (hp1451)
90	d1vcta1		Alignment	not modelled	5.7	10	Fold: Spectrin repeat-like Superfamily: PhoU-like Family: PhoU-like
91	d2qlvb1		Alignment	not modelled	5.7	19	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: AMPK-beta glycogen binding domain-like
92	d1r6ta2		Alignment	not modelled	5.6	23	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
93	c2k9kA		Alignment	not modelled	5.6	17	PDB header: metal transport Chain: A: PDB Molecule: tonb2; PDBTitle: molecular characterization of the tonb2 protein from vibrio2 anguillarum
94	d2f15a1		Alignment	not modelled	5.6	17	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: AMPK-beta glycogen binding domain-like
95	c3g59A		Alignment	not modelled	5.5	27	PDB header: transferase Chain: A: PDB Molecule: fmn adenyltransferase; PDBTitle: crystal structure of candida glabrata fmn2 adenyltransferase in complex with atp
96	c2or0B		Alignment	not modelled	5.5	7	PDB header: oxidoreductase Chain: B: PDB Molecule: hydroxylase; PDBTitle: structural genomics, the crystal structure of a putative hydroxylase2 from rhodococcus sp. rha1
97	c2dn9A		Alignment	not modelled	5.5	21	PDB header: apoptosis, chaperone Chain: A: PDB Molecule: dhaj homolog subfamily a member 3; PDBTitle: solution structure of j-domain from the dhaj homolog, human2 tid1 protein
98	c3oakC		Alignment	not modelled	5.5	57	PDB header: transcription Chain: C: PDB Molecule: transcription elongation factor spt6; PDBTitle: crystal structure of a spn1 (iws1)-spt6 complex
99	c3fq9A		Alignment	not modelled	5.4	5	PDB header: hormone Chain: A: PDB Molecule: insulin; PDBTitle: design of an insulin analog with enhanced receptor-binding2 selectivity. rationale, structure, and therapeutic3 implications