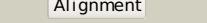
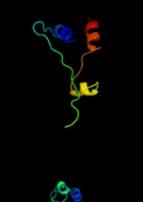
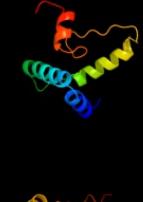
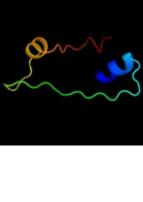


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P77260
Date	Thu Jan 5 12:26:57 GMT 2012
Unique Job ID	c95c53f20a89f7bd

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1m2wA			100.0	38	PDB header: oxidoreductase Chain: A; PDB Molecule: mannitol dehydrogenase; PDBTitle: pseudomonas fluorescens mannitol 2-dehydrogenase ternary complex with 2 nad and d-mannitol
2	c3h2zA			100.0	25	PDB header: oxidoreductase Chain: A; PDB Molecule: mannitol-1-phosphate 5-dehydrogenase; PDBTitle: the crystal structure of mannitol-1-phosphate dehydrogenase from shigella flexneri
3	d1lj8a4			100.0	39	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
4	d1lj8a3			100.0	36	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: Mannitol 2-dehydrogenase
5	c2axqA			53.5	15	PDB header: oxidoreductase Chain: A; PDB Molecule: saccharopine dehydrogenase; PDBTitle: apo histidine-tagged saccharopine dehydrogenase (I-gluc forming) from saccharomyces cerevisiae
6	c3mtjA			44.1	11	PDB header: oxidoreductase Chain: A; PDB Molecule: homoserine dehydrogenase; PDBTitle: the crystal structure of a homoserine dehydrogenase from thiobacillus2 denitrificans to 2.15a
7	d1k4ia			43.7	12	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
8	c2ph5A			39.5	17	PDB header: transferase Chain: A; PDB Molecule: homospermidine synthase; PDBTitle: crystal structure of the homospermidine synthase hss from legionella2 pneumophila in complex with nad, northeast structural genomics target3 lgr54
9	d1gzsB			37.8	11	Fold: SopE-like GEF domain Superfamily: SopE-like GEF domain Family: SopE-like GEF domain
10	c3e59A			35.8	16	PDB header: transferase Chain: A; PDB Molecule: pyoverdine biosynthesis protein pvca; PDBTitle: crystal structure of the pvca (pa2254) protein from pseudomonas2 aeruginosa
11	d1snna			34.7	22	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB

12	c3euwB			32.9	19	PDB header: oxidoreductase Chain: B: PDB Molecule: myo-inositol dehydrogenase; PDBTitle: crystal structure of a myo-inositol dehydrogenase from corynebacterium2 glutamicum atcc 13032
13	d1qusa			32.7	12	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: Bacterial muramidase, catalytic domain
14	c3mioA			32.5	20	PDB header: lyase Chain: A: PDB Molecule: 3,4-dihydroxy-2-butane 4-phosphate synthase; PDBTitle: crystal structure of 3,4-dihydroxy-2-butane 4-phosphate synthase2 domain from mycobacterium tuberculosis at ph 6.00
15	c3fggA			28.4	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein bce2196; PDBTitle: crystal structure of putative ecf-type sigma factor negative effector2 from bacillus cereus
16	d1r0ka2			27.6	11	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
17	c3egoB			26.7	10	PDB header: oxidoreductase Chain: B: PDB Molecule: probable 2-dehydropantoate 2-reductase; PDBTitle: crystal structure of probable 2-dehydropantoate 2-reductase2 pane from bacillus subtilis
18	c3nt5B			23.2	22	PDB header: oxidoreductase Chain: B: PDB Molecule: inositol 2-dehydrogenase/d-chiro-inositol 3-dehydrogenase; PDBTitle: crystal structure of myo-inositol dehydrogenase from bacillus subtilis2 with bound cofactor and product inosose
19	c1r0ID			21.7	13	PDB header: oxidoreductase Chain: D: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose 5-phosphate reductoisomerase from zymomonas mobilis in complex with nadph
20	d2o8ra3			21.5	36	Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Polyphosphate kinase C-terminal domain
21	c1z9bA		not modelled	21.2	13	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-2; PDBTitle: solution structure of the c1-subdomain of bacillus stearothermophilus translation initiation factor if2
22	c3ceaA		not modelled	21.0	8	PDB header: oxidoreductase Chain: A: PDB Molecule: myo-inositol 2-dehydrogenase; PDBTitle: crystal structure of myo-inositol 2-dehydrogenase (np_786804.1) from2 lactobacillus plantarum at 2.40 a resolution
23	c2qytA		not modelled	21.0	21	PDB header: oxidoreductase Chain: A: PDB Molecule: 2-dehydropantoate 2-reductase; PDBTitle: crystal structure of 2-dehydropantoate 2-reductase from porphyromonas2 gingivalis w83
24	c1e5IA		not modelled	21.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: saccharopine reductase; PDBTitle: apo saccharopine reductase from magnaporthe grisea
25	c1ceuA		not modelled	19.7	44	PDB header: viral protein Chain: A: PDB Molecule: protein (hiv-1 regulatory protein n-terminal PDBTitle: nmr structure of the (1-51) n-terminal domain of the hiv-12 regulatory protein
26	c2o8rA		not modelled	18.6	36	PDB header: transferase Chain: A: PDB Molecule: polyphosphate kinase; PDBTitle: crystal structure of polyphosphate kinase from2 porphyromonas gingivalis
27	d1v8fa		not modelled	16.7	25	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Pantothenate synthetase (Pantoate-beta-alanine ligase, PanC)
28	c2cu2A		not modelled	16.6	17	PDB header: transferase Chain: A: PDB Molecule: putative mannose-1-phosphate guanylyl transferase; PDBTitle: crystal structure of mannose-1-phosphate

						geranyltransferase from <i>thermus thermophilus</i> hb8
29	d1ftaa_	Alignment	not modelled	15.8	25	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
30	c2g4eB_	Alignment	not modelled	15.6	16	PDB header: oxidoreductase Chain: B: PDB Molecule: probable oxidoreductase at4g09670; PDBTitle: ensemble refinement of the protein crystal structure of gene product2 from <i>arabidopsis thaliana</i> at4g09670
31	d2py6a1	Alignment	not modelled	15.0	30	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: FkbM-like PDB header: hydrolase
32	c2gq1A_	Alignment	not modelled	14.8	17	Chain: A: PDB Molecule: fructose-1,6-bisphosphatase; PDBTitle: crystal structure of recombinant type i fructose-1,6-bisphosphatase2 from <i>escherichia coli</i> complexed with sulfate ions
33	c2fhyL_	Alignment	not modelled	14.7	25	PDB header: hydrolase Chain: L: PDB Molecule: fructose-1,6-bisphosphatase 1; PDBTitle: structure of human liver fbase complexed with a novel2 benzoxazole as allosteric inhibitor
34	c3ghyA_	Alignment	not modelled	14.4	14	PDB header: oxidoreductase Chain: A: PDB Molecule: ketopantoate reductase protein; PDBTitle: crystal structure of a putative ketopantoate reductase from <i>ralstonia2 solanacearum</i> molk2
35	d2v0fa1	Alignment	not modelled	13.2	40	Fold: GYF/BRK domain-like Superfamily: BRK domain-like Family: BRK domain-like
36	c3dapB_	Alignment	not modelled	12.9	17	PDB header: oxidoreductase Chain: B: PDB Molecule: diaminopimelic acid dehydrogenase; PDBTitle: c. glutamicum dap dehydrogenase in complex with nadp+ and2 the inhibitor 5s-isoxazoline
37	d1e5qa1	Alignment	not modelled	12.4	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
38	c3guzB_	Alignment	not modelled	12.0	21	PDB header: ligase Chain: B: PDB Molecule: pantothenate synthetase; PDBTitle: structural and substrate-binding studies of pantothenate2 synthetase (ps)provide insights into homotropic inhibition3 by pantoate in ps's
39	c3hn2A_	Alignment	not modelled	12.0	13	PDB header: oxidoreductase Chain: A: PDB Molecule: 2-dehydropantoate 2-reductase; PDBTitle: crystal structure of 2-dehydropantoate 2-reductase from <i>geobacter2 metallireducens</i> gs-15
40	c3c7cB_	Alignment	not modelled	11.8	16	PDB header: oxidoreductase Chain: B: PDB Molecule: octopine dehydrogenase; PDBTitle: a structural basis for substrate and stereo selectivity in2 octopine dehydrogenase (odh-nadh-l-arginine)
41	c3omdB_	Alignment	not modelled	11.6	11	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of unknown function protein from <i>leptospirillum2 rubarum</i>
42	d1uj8a1	Alignment	not modelled	11.2	16	Fold: Another 3-helical bundle Superfamily: IscX-like Family: IscX-like
43	c3n8hA_	Alignment	not modelled	10.6	25	PDB header: ligase Chain: A: PDB Molecule: pantothenate synthetase; PDBTitle: crystal structure of pantoate-beta-alanine ligase from <i>francisella2 tularensis</i>
44	d2a1jb1	Alignment	not modelled	10.5	16	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
45	d1r6ea_	Alignment	not modelled	10.4	14	Fold: SopE-like GEF domain Superfamily: SopE-like GEF domain Family: SopE-like GEF domain
46	c3tbiA_	Alignment	not modelled	10.4	21	PDB header: transcription Chain: A: PDB Molecule: rna polymerase-associated protein gp33; PDBTitle: crystal structure of t4 gp33 bound to <i>e. coli</i> rnap beta-flap domain
47	c2k0rA_	Alignment	not modelled	10.1	14	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol-disulfide interchange protein dsbd; PDBTitle: solution structure of the c103s mutant of the n-terminal2 domain of dsbd from <i>neisseria meningitidis</i>
48	d1bk4a_	Alignment	not modelled	10.0	25	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
49	c2c9lZ_	Alignment	not modelled	9.8	40	PDB header: viral protein Chain: Z: PDB Molecule: bzlf1 trans-activator protein; PDBTitle: structure of the epstein-barr virus zebra protein
50	c2ejcA_	Alignment	not modelled	9.7	18	PDB header: ligase Chain: A: PDB Molecule: pantoate--beta-alanine ligase; PDBTitle: crystal structure of pantoate--beta-alanine ligase (panc)2 from <i>thermotoga maritima</i>
51	d1f06a1	Alignment	not modelled	9.4	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
52	d2cu2a2	Alignment	not modelled	9.3	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: mannose-1-phosphate guanylyl transferase
53	d1nuwa_	Alignment	not modelled	9.3	25	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
54	c3innB_	Alignment	not modelled	9.2	18	PDB header: ligase Chain: B: PDB Molecule: pantothenate synthetase; PDBTitle: crystal structure of pantoate-beta-alanine-ligase in complex2 with atp at low occupancy at 2.1 a resolution

55	d2oc5a1		not modelled	9.0	24	Fold: Ferritin-like Superfamily: Ferritin-like Family: PMT1231-like
56	c1yy3A		not modelled	9.0	22	PDB header: isomerase Chain: A: PDB Molecule: s-adenosylmethionine:trna ribosyltransferase- PDBTitle: structure of s-adenosylmethionine:trna ribosyltransferase-2 isomerase (quea)
57	d2ouxal1		not modelled	8.9	10	Fold: alpha-alpha superhelix Superfamily: MgtE N-terminal domain-like Family: MgtE N-terminal domain-like
58	c3ketA		not modelled	8.8	12	PDB header: transcription/dna Chain: A: PDB Molecule: redox-sensing transcriptional repressor rex; PDBTitle: crystal structure of a rex-family transcriptional regulatory protein2 from streptococcus agalactiae bound to a palindromic operator
59	c3bjrA		not modelled	8.8	13	PDB header: hydrolase Chain: A: PDB Molecule: putative carboxylesterase; PDBTitle: crystal structure of a putative carboxylesterase (lp_1002) from2 lactobacillus plantarum wcf1 at 2.09 a resolution
60	c2qpqC		not modelled	8.7	19	PDB header: transport protein Chain: C: PDB Molecule: protein bug27; PDBTitle: structure of bug27 from bordetella pertussis
61	c1fi0A		not modelled	8.6	44	PDB header: viral protein Chain: A: PDB Molecule: vpr protein; PDBTitle: solution structure of hiv-1 vpr (13-33) peptide in micells
62	c3g17H		not modelled	8.6	12	PDB header: structural genomics, unknown function Chain: H: PDB Molecule: similar to 2-dehydropantoate 2-reductase; PDBTitle: structure of putative 2-dehydropantoate 2-reductase from2 staphylococcus aureus
63	c2x41A		not modelled	8.3	7	PDB header: hydrolase Chain: A: PDB Molecule: beta-glucosidase; PDBTitle: structure of beta-glucosidase 3b from thermotoga neapolitana2 in complex with glucose
64	c2x5sB		not modelled	8.2	14	PDB header: transferase Chain: B: PDB Molecule: mannose-1-phosphate guanylyltransferase; PDBTitle: crystal structure of t. maritima gdp-mannose2 pyrophosphorylase in apo state.
65	d1g7sa3		not modelled	8.2	16	Fold: initiation factor IF2/eIF5b, domain 3 Superfamily: Initiation factor IF2/eIF5b, domain 3 Family: Initiation factor IF2/eIF5b, domain 3
66	d1xdpa3		not modelled	8.2	50	Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Polyphosphate kinase C-terminal domain
67	d2dt5a2		not modelled	8.0	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Transcriptional repressor Rex, C-terminal domain
68	c3b20R		not modelled	7.4	19	PDB header: oxidoreductase Chain: R: PDB Molecule: glyceraldehyde 3-phosphate dehydrogenase (nadp+); PDBTitle: crystal structure analysis of dehydrogenase complexed with nad
69	d1u2ka		not modelled	7.3	26	Fold: Heme-dependent peroxidases Superfamily: Heme-dependent peroxidases Family: Catalase-peroxidase KatG
70	c2k2iB		not modelled	7.3	36	PDB header: cell cycle Chain: B: PDB Molecule: sf1 peptide; PDBTitle: nmr solution structure of the c-terminal domain (t94-y172)2 of the human centrin 2 in complex with a repeat sequence of3 human sf1 (r641-t660)
71	c3h8gC		not modelled	7.3	15	PDB header: hydrolase Chain: C: PDB Molecule: cytosol aminopeptidase; PDBTitle: bestatin complex structure of leucine aminopeptidase from pseudomonas2 putida
72	d1ihoa		not modelled	7.2	21	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Pantothenate synthetase (Pantoate-beta-alanine ligase, PanC)
73	c3rrlC		not modelled	7.2	18	PDB header: transferase Chain: C: PDB Molecule: succinyl-coa:3-ketoacid-coenzyme a transferase subunit a; PDBTitle: complex structure of 3-oxoadipate coa-transferase subunit a and b from2 helicobacter pylori 26695
74	c1txgA		not modelled	7.2	14	PDB header: oxidoreductase Chain: A: PDB Molecule: glycerol-3-phosphate dehydrogenase [nad(p)+]; PDBTitle: structure of glycerol-3-phosphate dehydrogenase from archaeoglobus2 fulgidus
75	d1o7fa1		not modelled	7.0	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
76	c3r24A		not modelled	7.0	50	PDB header: transferase, viral protein Chain: A: PDB Molecule: 2'-o-methyl transferase; PDBTitle: crystal structure of nsp10/nsp16 complex of sars coronavirus" if2 possible
77	c1u2jc		not modelled	6.9	26	PDB header: oxidoreductase Chain: C: PDB Molecule: peroxidase/catalase hpi; PDBTitle: crystal structure of the c-terminal domain from the2 catalase-peroxidase katg of escherichia coli (p21 21 21)
78	d1t0la		not modelled	6.9	11	Fold: Isocitrate/isopropylmalate dehydrogenase-like Superfamily: Isocitrate/isopropylmalate dehydrogenase-like Family: Dimeric isocitrate & isopropylmalate dehydrogenases
						PDB header: structural genomics, unknown function

79	c3ogiC_	Alignment	not modelled	6.8	20	Chain: C: PDB Molecule: putative esat-6-like protein 6; PDBTitle: crystal structure of the mycobacterium tuberculosis h37rv esxop2 complex (rv2346c-rv2347c)
80	c2d2iO_	Alignment	not modelled	6.7	19	PDB header: oxidoreductase Chain: O: PDB Molecule: glyceraldehyde 3-phosphate dehydrogenase; PDBTitle: crystal structure of nadp-dependent glyceraldehyde-3-2 phosphate dehydrogenase from synechococcus sp. complexed3 with nadp+
81	d1mrza2	Alignment	not modelled	6.7	24	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Adenylyltransferase
82	c3tevA_	Alignment	not modelled	6.6	10	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hyrolase, family 3; PDBTitle: the crystal structure of glycosyl hyrolase from deinococcus2 radiodurans r1
83	d1m9dc_	Alignment	not modelled	6.6	15	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
84	c3fk4A_	Alignment	not modelled	6.3	16	PDB header: isomerase Chain: A: PDB Molecule: rubisco-like protein; PDBTitle: crystal structure of rubisco-like protein from bacillus2 cereus atcc 14579
85	c2xvtC_	Alignment	not modelled	6.2	33	PDB header: membrane protein Chain: C: PDB Molecule: receptor activity-modifying protein 2; PDBTitle: structure of the extracellular domain of human ramp2
86	c3ag5A_	Alignment	not modelled	6.2	21	PDB header: ligase Chain: A: PDB Molecule: pantothenate synthetase; PDBTitle: crystal structure of pantothenate synthetase from staphylococcus2 aureus
87	d1veha_	Alignment	not modelled	6.1	25	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
88	d2higa1	Alignment	not modelled	6.0	16	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Hypothetical protein YdhR
89	c3q2kB_	Alignment	not modelled	5.9	15	PDB header: oxidoreductase Chain: B: PDB Molecule: oxidoreductase; PDBTitle: crystal structure of the wlba dehydrogenase from bordetella pertussis2 in complex with nadh and udp-glcna
90	c2o8sa_	Alignment	not modelled	5.9	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: agr_c_984p; PDBTitle: x-ray crystal structure of protein agr_c_984 from agrobacterium2 tumefaciens. northeast structural genomics consortium target atr120.
91	d1f0xa1	Alignment	not modelled	5.8	38	Fold: Ferredoxin-like Superfamily: FAD-linked oxidases, C-terminal domain Family: D-lactate dehydrogenase
92	c2k8sA_	Alignment	not modelled	5.7	46	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: solution nmr structure of dimeric thioredoxin-like protein2 ne0084 from nitrosomonas europea: northeast structural3 genomics target net6
93	c2ew2B_	Alignment	not modelled	5.6	12	PDB header: oxidoreductase Chain: B: PDB Molecule: 2-dehydropantoate 2-reductase, putative; PDBTitle: crystal structure of the putative 2-dehydropantoate 2-reductase from2 enterococcus faecalis
94	d2pg4a1	Alignment	not modelled	5.6	15	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: F93-like
95	c3f3mA_	Alignment	not modelled	5.5	12	PDB header: transferase Chain: A: PDB Molecule: phosphopantetheine adenyllyltransferase; PDBTitle: six crystal structures of two phosphopantetheine2 adenyllyltransferases reveal an alternative ligand binding3 mode and an associated structural change
96	c1lanA_	Alignment	not modelled	5.5	13	PDB header: hydrolase (alpha-aminoacylpeptide) Chain: A: PDB Molecule: leucine aminopeptidase; PDBTitle: leucine aminopeptidase complex with l-leucinal
97	d1vm6a3	Alignment	not modelled	5.5	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
98	d2ahua2	Alignment	not modelled	5.5	13	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: CoA transferase alpha subunit-like
99	d1hcia1	Alignment	not modelled	5.4	26	Fold: Spectrin repeat-like Superfamily: Spectrin repeat Family: Spectrin repeat