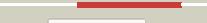
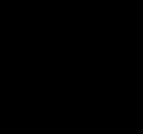


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P69797
Date	Thu Jan 5 12:12:00 GMT 2012
Unique Job ID	97a462c9829cb71f

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1vsqC_			100.0	100	PDB header: transferase Chain: C; PDB Molecule: mannose-specific phosphotransferase enzyme iib PDBTitle: solution nmr structure of the productive complex between2 iiamannose and iibmannose of the mannose transporter of3 the e. coli phosphotransferase system
2	d1nrza_			100.0	51	Fold: PTS IIB component Superfamily: PTS IIB component Family: PTS IIB component
3	d1blea_			100.0	48	Fold: PTS IIB component Superfamily: PTS IIB component Family: PTS IIB component
4	c3lfjB_			100.0	32	PDB header: transferase Chain: B; PDB Molecule: phosphotransferase system, mannose/fructose/n- PDBTitle: crystal structure of manxb from thermoanaerobacter tengcongensis
5	c3p3vB_			100.0	25	PDB header: transferase Chain: B; PDB Molecule: pts system, n-acetylgalactosamine-specific iib component; PDBTitle: crystal structure of a pts dependent n-acetyl-galactosamine-iib2 component (agav, spy_0631) from streptococcus pyogenes at 1.65 a3 resolution
6	c3eyeA_			100.0	34	PDB header: transferase Chain: A; PDB Molecule: pts system n-acetylgalactosamine-specific iib PDBTitle: crystal structure of pts system n-acetylgalactosamine-2 specific iib component 1 from escherichia coli
7	d1pdoa_			100.0	100	Fold: PTS system fructose IIA component-like Superfamily: PTS system fructose IIA component-like Family: EIIA-man component-like
8	c3iprc_			100.0	25	PDB header: transferase Chain: C; PDB Molecule: pts system, iia component; PDBTitle: crystal structure of the enterococcus faecalis gluconate2 specific eiiA phosphotransferase system component
9	c3lfhF_			100.0	34	PDB header: transferase Chain: F; PDB Molecule: phosphotransferase system, mannose/fructose-specific PDBTitle: crystal structure of manxa from thermoanaerobacter tengcongensis
10	d3beda1			100.0	23	Fold: PTS system fructose IIA component-like Superfamily: PTS system fructose IIA component-like Family: EIIA-man component-like
11	c3mtqA_			100.0	21	PDB header: transferase Chain: A; PDB Molecule: putative phosphoenolpyruvate-dependent sugar PDBTitle: crystal structure of a putative phosphoenolpyruvate-dependent sugar2 phosphotransferase system (pts) permease (kpn_04802) from klebsiella3 pneumoniae subsp. pneumoniae mgh 78578 at 1.70 a resolution

12	c3gx1A			99.9	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin1832 protein; PDBTitle: crystal structure of a domain of lin1832 from listeria innocua
13	d3b48a1			99.8	11	Fold: PTS system fructose IIA component-like Superfamily: PTS system fructose IIA component-like Family: DhaM-like
14	c3gdwA			99.3	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: sigma-54 interaction domain protein; PDBTitle: crystal structure of sigma-54 interaction domain protein from2 enterococcus faecalis
15	d3ct6a1			99.1	15	Fold: PTS system fructose IIA component-like Superfamily: PTS system fructose IIA component-like Family: DhaM-like
16	c3edlA			87.9	14	PDB header: structural protein Chain: A: PDB Molecule: alpha-tubulin; PDBTitle: kinesin13-microtubule ring complex
17	c2dt8A			86.2	15	PDB header: lipid binding protein Chain: A: PDB Molecule: devg family protein; PDBTitle: fatty acid binding of a devg family protein from thermus thermophilus
18	c3lupA			82.2	12	PDB header: structure genomics, unknown function Chain: A: PDB Molecule: devg family protein; PDBTitle: crystal structure of fatty acid binding devg family protein sag13422 from streptococcus agalactiae
19	c2g7zB			82.0	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: conserved hypothetical protein spy1493; PDBTitle: conserved devg-like protein of unknown function from streptococcus2 pyogenes m1 gas binds long-chain fatty acids
20	c2btqB			80.8	17	PDB header: structural protein Chain: B: PDB Molecule: tubulin btubb; PDBTitle: structure of btubb heterodimer from prosthecobacter2 dejongeii
21	c3lcmB		not modelled	74.2	16	PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of smu.1420 from streptococcus mutans ua159
22	c2btoA		not modelled	71.9	14	PDB header: cytoskeletal protein Chain: A: PDB Molecule: tubulin btuba; PDBTitle: structure of btuba from prosthecobacter dejongeii
23	c2p4nB		not modelled	71.8	8	PDB header: transport protein Chain: B: PDB Molecule: tubulin beta chain; PDBTitle: human monomeric kinesin (1bg2) and bovine tubulin (1jff2) docked into the 9-angstrom cryo-em map of nucleotide-free3 kinesin complexed to the microtubule
24	c3nyiA		not modelled	70.4	15	PDB header: lipid binding protein Chain: A: PDB Molecule: fat acid-binding protein; PDBTitle: the crystal structure of a fat acid (stearic acid)-binding protein2 from eubacterium ventriosum atcc 27560.
25	d2czca2		not modelled	70.0	15	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
26	c2qvcC		not modelled	69.6	9	PDB header: transport protein Chain: C: PDB Molecule: sugar abc transporter, periplasmic sugar-binding PDBTitle: crystal structure of a periplasmic sugar abc transporter2 from thermotoga maritima
27	d2btoa1		not modelled	68.3	14	Fold: Tubulin nucleotide-binding domain-like Superfamily: Tubulin nucleotide-binding domain-like Family: Tubulin, GTPase domain
28	c1mgpA		not modelled	66.3	17	PDB header: lipid binding protein Chain: A: PDB Molecule: hypothetical protein tm841; PDBTitle: hypothetical protein tm841 from thermotoga maritima

					reveals2 fatty acid binding function
29	d1mpa_	Alignment	not modelled	66.3	17 Fold: DAK1/DegV-like Superfamily: DAK1/DegV-like Family: DegV-like
30	d1pxa_	Alignment	not modelled	66.3	12 Fold: DAK1/DegV-like Superfamily: DAK1/DegV-like Family: DegV-like
31	d1tuba1	Alignment	not modelled	64.9	13 Fold: Tubulin nucleotide-binding domain-like Superfamily: Tubulin nucleotide-binding domain-like Family: Tubulin, GTPase domain
32	c3rfaA_	Alignment	not modelled	61.5	18 PDB header: oxidoreductase Chain: A: PDB Molecule: ribosomal rna large subunit methyltransferase n; PDBTitle: x-ray structure of rlmn from escherichia coli in complex with s-2 adenosylmethionine
33	d1tubb1	Alignment	not modelled	60.8	8 Fold: Tubulin nucleotide-binding domain-like Superfamily: Tubulin nucleotide-binding domain-like Family: Tubulin, GTPase domain
34	c1z5wA_	Alignment	not modelled	57.7	14 PDB header: structural protein Chain: A: PDB Molecule: tubulin gamma-1 chain; PDBTitle: crystal structure of gamma-tubulin bound to gtp
35	d1xm7a_	Alignment	not modelled	54.3	19 Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: Hypothetical protein aq 1666
36	c3ihA_	Alignment	not modelled	51.4	12 PDB header: transcription regulator Chain: A: PDB Molecule: two component response regulator; PDBTitle: crystal structure of two component response regulator from cytophaga2 hutchinsonii
37	d1t0ia_	Alignment	not modelled	48.7	14 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: NADPH-dependent FMN reductase
38	c2is8A_	Alignment	not modelled	48.6	17 PDB header: structural protein Chain: A: PDB Molecule: molybdopterin biosynthesis enzyme, moab; PDBTitle: crystal structure of the molybdopterin biosynthesis enzyme moab2 (ttha0341) from thermus theromophilus hb8
39	c3l0gD_	Alignment	not modelled	48.3	17 PDB header: transferase Chain: D: PDB Molecule: nicotinate-nucleotide pyrophosphorylase; PDBTitle: crystal structure of nicotinate-nucleotide pyrophosphorylase from ehrlichia chaffeensis at 2.05a resolution
40	c1gapA_	Alignment	not modelled	45.2	16 PDB header: glycosyltransferase Chain: A: PDB Molecule: quinolinic acid phosphoribosyltransferase; PDBTitle: quinolinic acid phosphoribosyltransferase with bound2 quinolinic acid
41	c3gl9B_	Alignment	not modelled	44.1	9 PDB header: signaling protein Chain: B: PDB Molecule: response regulator; PDBTitle: the structure of a histidine kinase-response regulator2 complex sheds light into two-component signaling and3 reveals a novel cis autophosphorylation mechanism
42	c4a26B_	Alignment	not modelled	43.8	11 PDB header: oxidoreductase Chain: B: PDB Molecule: putative c-1-tetrahydrofolate synthase, cytoplasmic; PDBTitle: the crystal structure of leishmania major n5,n10-2 methylenetetrahydrofolate dehydrogenase/cyclohydrolase
43	d1rtta_	Alignment	not modelled	42.9	13 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: NADPH-dependent FMN reductase
44	c3khtA_	Alignment	not modelled	41.5	20 PDB header: signaling protein Chain: A: PDB Molecule: response regulator; PDBTitle: crystal structure of response regulator from hahella chejuensis
45	c3p2oA_	Alignment	not modelled	40.8	11 PDB header: oxidoreductase, hydrolase Chain: A: PDB Molecule: bifunctional protein fold; PDBTitle: crystal structure of fold bifunctional protein from campylobacter2 jejuni
46	c3p2oB_	Alignment	not modelled	40.6	11 PDB header: oxidoreductase, hydrolase Chain: B: PDB Molecule: bifunctional protein fold; PDBTitle: crystal structure of fold bifunctional protein from campylobacter2 jejuni
47	c3q41B_	Alignment	not modelled	40.2	20 PDB header: transport protein Chain: B: PDB Molecule: glutamate [nmda] receptor subunit zeta-1; PDBTitle: crystal structure of the glun1 n-terminal domain (ntd)
48	c3fysA_	Alignment	not modelled	39.9	13 PDB header: fatty acid-binding protein Chain: A: PDB Molecule: protein degv; PDBTitle: crystal structure of degv, a fatty acid binding protein2 from bacillus subtilis
49	c3eqzB_	Alignment	not modelled	39.3	16 PDB header: structural genomics, unknown function Chain: B: PDB Molecule: response regulator; PDBTitle: crystal structure of a response regulator from colwellia2 psychrerythraea
50	d1tjna_	Alignment	not modelled	37.2	18 Fold: Chelatase-like Superfamily: Chelatase Family: CbiX-like
51	c1tjnA_	Alignment	not modelled	37.2	18 PDB header: lyase Chain: A: PDB Molecule: sirohydrochlorin cobaltochelatase; PDBTitle: crystal structure of hypothetical protein af0721 from archaeoglobus2 fulgidus
52	d2obba1	Alignment	not modelled	36.8	10 Fold: HAD-like Superfamily: HAD-like Family: BT0820-like
53	d1r8ja2	Alignment	not modelled	36.0	11 Fold: Flavodoxin-like Superfamily: CheY-like Family: N-terminal domain of the circadian clock protein KaiA

54	d1t0kb	Alignment	not modelled	35.8	8	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: L30e/L7ae ribosomal proteins
55	d2qwx1	Alignment	not modelled	35.5	23	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
56	c3l07B	Alignment	not modelled	35.1	10	PDB header: oxidoreductase,hydrolase Chain: B: PDB Molecule: bifunctional protein fold; PDBTitle: methylenetetrahydrofolate dehydrogenase/methenyltetrahydrofolate2 cyclohydrolase, putative bifunctional protein fold from francisella3 tularensis.
57	c4a5oB	Alignment	not modelled	34.7	10	PDB header: oxidoreductase Chain: B: PDB Molecule: bifunctional protein fold; PDBTitle: crystal structure of pseudomonas aeruginosa n5, n10-2 methylenetetrahydrofolate dehydrogenase-cyclohydrolase (fold)
58	c3n53B	Alignment	not modelled	34.5	7	PDB header: transcription Chain: B: PDB Molecule: response regulator receiver modulated diguanylate cyclase; PDBTitle: crystal structure of a response regulator receiver modulated2 diguanylate cyclase from pelobacter carbinolicus
59	c3eywA	Alignment	not modelled	34.1	17	PDB header: transport protein Chain: A: PDB Molecule: c-terminal domain of glutathione-regulated potassium-efflux PDBTitle: crystal structure of the c-terminal domain of e. coli kefc in complex2 with keff
60	c3cz5B	Alignment	not modelled	33.3	21	PDB header: transcription regulator Chain: B: PDB Molecule: two-component response regulator, luxr family; PDBTitle: crystal structure of two-component response regulator, luxr family,2 from aurantimonas sp. si85-9a1
61	c2qv0A	Alignment	not modelled	33.2	17	PDB header: transcription Chain: A: PDB Molecule: protein mrke; PDBTitle: crystal structure of the response regulatory domain of2 protein mrke from klebsiella pneumoniae
62	c2p10D	Alignment	not modelled	32.2	13	PDB header: hydrolase Chain: D: PDB Molecule: mli9387 protein; PDBTitle: crystal structure of a putative phosphonopyruvate hydrolase (mli9387)2 from mesorhizobium loti maff303099 at 2.15 a resolution
63	c2pjka	Alignment	not modelled	31.2	6	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 178aa long hypothetical molybdenum cofactor PDBTitle: structure of hypothetical molybdenum cofactor biosynthesis2 protein b from sulfolobus tokodaii
64	d1k66a	Alignment	not modelled	30.9	11	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
65	c3h6hB	Alignment	not modelled	30.1	9	PDB header: membrane protein Chain: B: PDB Molecule: glutamate receptor, ionotropic kainate 2; PDBTitle: crystal structure of the glur6 amino terminal domain dimer assembly2 mpd form
66	c3sajB	Alignment	not modelled	29.7	9	PDB header: transport protein Chain: B: PDB Molecule: glutamate receptor 1; PDBTitle: crystal structure of glutamate receptor glua1 amino terminal domain
67	c2rjoA	Alignment	not modelled	29.5	16	PDB header: signaling protein Chain: A: PDB Molecule: twin-arginine translocation pathway signal protein; PDBTitle: crystal structure of twin-arginine translocation pathway signal2 protein from burkholderia phytopharmans
68	c1zfjA	Alignment	not modelled	28.6	17	PDB header: oxidoreductase Chain: A: PDB Molecule: inosine monophosphate dehydrogenase; PDBTitle: inosine monophosphate dehydrogenase (impdh; ec 1.1.1.205) from2 streptococcus pyogenes
69	c3lftA	Alignment	not modelled	28.2	8	PDB header: structure genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: the crystal structure of the abc domain in complex with l-trp from2 streptococcus pneumonia to 1.35a
70	d1a04a2	Alignment	not modelled	28.1	15	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
71	c1b0aA	Alignment	not modelled	27.6	14	PDB header: oxidoreductase,hydrolase Chain: A: PDB Molecule: protein (fold bifunctional protein); PDBTitle: 5,10, methylene-tetrahydropholate2 dehydrogenase/cyclohydrolase from e coli.
72	d1qrda	Alignment	not modelled	27.5	16	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
73	c3cnbC	Alignment	not modelled	26.9	11	PDB header: dna binding protein Chain: C: PDB Molecule: dna-binding response regulator, merr family; PDBTitle: crystal structure of signal receiver domain of dna binding response2 regulator protein (merr) from colwellia psychrerythraea 34h
74	c3lyhB	Alignment	not modelled	26.9	21	PDB header: lyase Chain: B: PDB Molecule: cobalamin (vitamin b12) biosynthesis cbix protein; PDBTitle: crystal structure of putative cobalamin (vitamin b12) biosynthesis2 cbix protein (yp_958415.1) from marinobacter aquaeolei vt8 at 1.60 a3 resolution
75	c3pm7A	Alignment	not modelled	26.7	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of ef_3132 protein from enterococcus faecalis at the2 resolution 2a, northeast structural genomics consortium target efr184
76	d2jfga2	Alignment	not modelled	26.5	15	Fold: MurD-like peptide ligases, peptide-binding domain Superfamily: MurD-like peptide ligases, peptide-binding domain Family: MurCDEF C-terminal domain

77	c2k1oA		Alignment	not modelled	26.2	11	PDB header: gene regulation Chain: A: PDB Molecule: putative; PDBTitle: nmr structure of helicobacter pylori jhp0511 (hp0564).
78	d1w41a1		Alignment	not modelled	26.0	14	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: L30e/L7ae ribosomal proteins
79	c2qsjB		Alignment	not modelled	25.0	14	PDB header: transcription Chain: B: PDB Molecule: dna-binding response regulator, luxR family; PDBTitle: crystal structure of a luxR family dna-binding response2 regulator from silicibacter pomeroyi
80	c3iefA		Alignment	not modelled	24.8	19	PDB header: transferase, rna binding protein Chain: A: PDB Molecule: tRNA (guanine-n(1)-methyltransferase; PDBTitle: crystal structure of tRNA guanine-n1-methyltransferase from2 bartonella henselae using mpc.
81	c1mgtA		Alignment	not modelled	24.3	15	PDB header: transferase Chain: A: PDB Molecule: protein (o6-methylguanine-dna methyltransferase); PDBTitle: crystal structure of o6-methylguanine-dna methyltransferase from2 hyperthermophilic archaeon pyrococcus kodakaraensis strain kod1
82	d2p10a1		Alignment	not modelled	23.7	12	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: MII9387-like
83	c2hqbA		Alignment	not modelled	23.4	6	PDB header: transcription Chain: A: PDB Molecule: transcriptional activator of comK gene; PDBTitle: crystal structure of a transcriptional activator of comK2 gene from bacillus halodurans
84	c3cg0A		Alignment	not modelled	22.8	16	PDB header: lyase Chain: A: PDB Molecule: response regulator receiver modulated diguanylate cyclase PDBTitle: crystal structure of signal receiver domain of modulated diguanylate cyclase from desulfovibrio desulfuricans g20, an example of alternate3 folding
85	d1mb3a		Alignment	not modelled	22.7	11	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
86	c3hebB		Alignment	not modelled	22.6	8	PDB header: transcription regulator Chain: B: PDB Molecule: response regulator receiver domain protein (cheY); PDBTitle: crystal structure of response regulator receiver domain from2 rhodospirillum rubrum
87	c2qvgA		Alignment	not modelled	22.0	4	PDB header: transferase Chain: A: PDB Molecule: two component response regulator; PDBTitle: the crystal structure of a two-component response regulator2 from legionella pneumophila
88	c3ho6B		Alignment	not modelled	21.6	11	PDB header: toxin Chain: B: PDB Molecule: toxin a; PDBTitle: structure-function analysis of inositol hexakisphosphate-2 induced autoprocessing in clostridium difficile toxin a
89	c2qxyB		Alignment	not modelled	21.4	14	PDB header: transcription Chain: B: PDB Molecule: response regulator; PDBTitle: crystal structure of a response regulator from thermotoga2 maritima
90	c3egIC		Alignment	not modelled	21.3	13	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: devg family protein; PDBTitle: crystal structure of devg family protein cg2579 from corynebacterium2 glutamicum
91	c2p1zA		Alignment	not modelled	21.3	16	PDB header: transferase Chain: A: PDB Molecule: phosphoribosyltransferase; PDBTitle: crystal structure of phosphoribosyltransferase from corynebacterium2 diphtheriae
92	c1dd9A		Alignment	not modelled	21.0	18	PDB header: transferase Chain: A: PDB Molecule: dNA primase; PDBTitle: structure of the dNAG catalytic core
93	d1dd9a		Alignment	not modelled	21.0	18	Fold: DNA primase core Superfamily: DNA primase core Family: DNA primase DnaG catalytic core
94	c1pd7B		Alignment	not modelled	20.9	45	PDB header: transcription Chain: B: PDB Molecule: mad1; PDBTitle: extended sid of mad1 bound to the pah2 domain of msn3b
95	c2c2xB		Alignment	not modelled	20.9	13	PDB header: oxidoreductase Chain: B: PDB Molecule: methylene tetrahydrofolate dehydrogenase- PDBTitle: three dimensional structure of bifunctional2 methylenetetrahydrofolate dehydrogenase-cyclohydrolase3 from mycobacterium tuberculosis
96	d2i7pa1		Alignment	not modelled	20.7	22	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Fumble-like
97	c3kg2A		Alignment	not modelled	20.6	11	PDB header: membrane protein, transport protein Chain: A: PDB Molecule: glutamate receptor 2; PDBTitle: ampa subtype ionotropic glutamate receptor in complex with competitive2 antagonist zk 200775
98	c3om1A		Alignment	not modelled	20.6	8	PDB header: membrane protein Chain: A: PDB Molecule: glutamate receptor gluk5 (ka2); PDBTitle: crystal structure of the gluk5 (ka2) atd dimer at 1.7 angstrom2 resolution
99	c2kbfa		Alignment	not modelled	20.5	18	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase dbp5; PDBTitle: solution structure of carboxyl-terminal domain of dbp5p
100	d1qpoa1		Alignment	not modelled	20.4	9	Fold: TIM beta/alpha-barrel Superfamily: Nicotinate/Quinolinate PRTase C-terminal domain-like Family: NadC C-terminal domain-like