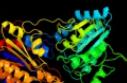
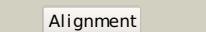
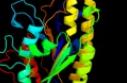
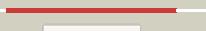
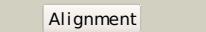
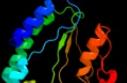
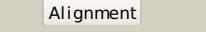
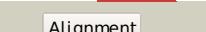
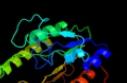
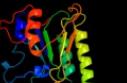
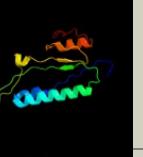
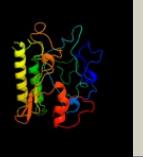
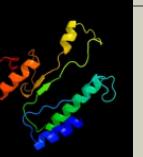


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P37689
Date	Thu Jan 5 11:57:01 GMT 2012
Unique Job ID	1f372a01d8d2cf9d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1o98A_			100.0	50	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent phosphoglycerate mutase PDBTitle: 1.4a crystal structure of phosphoglycerate mutase from bacillus stearothermophilus complexed with 3 2-phosphoglycerate
2	c3igzB_			100.0	34	PDB header: isomerase Chain: B: PDB Molecule: cofactor-independent phosphoglycerate mutase; PDBTitle: crystal structures of leishmania mexicana phosphoglycerate2 mutase at low cobalt concentration
3	d1o98a1			100.0	42	Fold: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain Superfamily: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain Family: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain
4	c3iddA_			100.0	20	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent phosphoglycerate mutase from thermoplasma acidophilum dsm 1728
5	d1o98a2			100.0	60	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, catalytic domain
6	c2zktB_			100.0	21	PDB header: isomerase Chain: B: PDB Molecule: 2,3-bisphosphoglycerate-independent phosphoglycerate PDBTitle: structure of ph0037 protein from pyrococcus horikoshii
7	c2i09A_			100.0	18	PDB header: isomerase Chain: A: PDB Molecule: phosphopentomutase; PDBTitle: crystal structure of putative phosphopentomutase from streptococcus2 mutans
8	c3m8yC_			99.9	25	PDB header: isomerase Chain: C: PDB Molecule: phosphopentomutase; PDBTitle: phosphopentomutase from bacillus cereus after glucose-1,6-bisphosphate2 activation
9	d2i09a1			99.9	26	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: DeoB catalytic domain-like
10	c3lxqB_			99.8	19	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein vp1736; PDBTitle: the crystal structure of a protein in the alkaline2 phosphatase superfamily from vibrio parahaemolyticus to 3 1.95a
11	d1fsua_			99.8	13	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase

12	c3g3qA	Alignment		99.8	29	PDB header: hydrolase Chain: A: PDB Molecule: alkaline phosphatase; PDBTitle: crystal structure of spap: a novel alkaline phosphatase from2 bacterium sphingomonas sp. strain bsar-1
13	d1hdha	Alignment		99.8	21	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
14	c3b5qB	Alignment		99.7	21	PDB header: hydrolase Chain: B: PDB Molecule: putative sulfatase yidj; PDBTitle: crystal structure of a putative sulfatase (np_810509.1)2 from bacteroides thetaiotaomicron vpi-5482 at 2.40 Å resolution
15	d1auka	Alignment		99.7	16	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
16	c2qzuA	Alignment		99.7	13	PDB header: hydrolase Chain: A: PDB Molecule: putative sulfatase yidj; PDBTitle: crystal structure of the putative sulfatase yidj from bacteroides2 fragilis. northeast structural genomics consortium target bfr123
17	c3ed4A	Alignment		99.7	17	PDB header: transferase Chain: A: PDB Molecule: arylsulfatase; PDBTitle: crystal structure of putative arylsulfatase from escherichia coli
18	d1p49a	Alignment		99.7	19	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
19	c2vqrA	Alignment		99.7	20	PDB header: hydrolase Chain: A: PDB Molecule: putative sulfatase; PDBTitle: crystal structure of a phosphonate monoester hydrolase2 from rhizobium leguminosarum: a new member of the3 alkaline phosphatase superfamily
20	c2w5tA	Alignment		99.7	14	PDB header: transferase Chain: A: PDB Molecule: processed glycerol phosphate lipoteichoic acid PDBTitle: structure-based mechanism of lipoteichoic acid synthesis by2 staphylococcus aureus itas.
21	c2xrgA	Alignment	not modelled	99.7	13	PDB header: hydrolase Chain: A: PDB Molecule: ectonucleotide pyrophosphatase/phosphodiesterase family PDBTitle: crystal structure of autotaxin (enpp2) in complex with the2 ha155 boronic acid inhibitor
22	c2w8dB	Alignment	not modelled	99.7	13	PDB header: transferase Chain: B: PDB Molecule: processed glycerol phosphate lipoteichoic acid synthase 2; PDBTitle: distinct and essential morphogenic functions for wall-and2 lipo-teichoic acids in bacillus subtilis
23	c2xr9A	Alignment	not modelled	99.7	13	PDB header: hydrolase Chain: A: PDB Molecule: ectonucleotide pyrophosphatase/phosphodiesterase family PDBTitle: crystal structure of autotaxin (enpp2)
24	d1y6va1	Alignment	not modelled	99.5	20	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase
25	c2iucB	Alignment	not modelled	99.4	12	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: structure of alkaline phosphatase from the antarctic2 bacterium tab5
26	c3a52A	Alignment	not modelled	99.4	26	PDB header: hydrolase Chain: A: PDB Molecule: cold-active alkaline phosphatase; PDBTitle: crystal structure of cold-active alkaline phosphatase from2 psychrophile shewanella sp.
27	c1ew2A	Alignment	not modelled	99.4	17	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase; PDBTitle: crystal structure of a human phosphatase
28	d1k7ha	Alignment	not modelled	99.4	21	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase

29	d1zeda1	Alignment	not modelled	99.4	17	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase
30	c2gsoB_	Alignment	not modelled	99.3	25	PDB header: hydrolase Chain: B: PDB Molecule: phosphodiesterase-nucleotide pyrophosphatase; PDBTitle: structure of xac nucleotide2 pyrophosphatase/phosphodiesterase in complex with vanadate
31	c2w0yB_	Alignment	not modelled	99.3	15	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: h.salinarum alkaline phosphatase
32	c2x98A_	Alignment	not modelled	99.3	16	PDB header: hydrolase Chain: A: PDB Molecule: alkaline phosphatase; PDBTitle: h.salinarum alkaline phosphatase
33	c3e2dB_	Alignment	not modelled	99.0	19	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: the 1.4 a crystal structure of the large and cold-active2 vibrio sp. alkaline phosphatase
34	d1ei6a_	Alignment	not modelled	98.2	16	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Phosphonoacetate hydrolase
35	c3szzA_	Alignment	not modelled	97.7	24	PDB header: hydrolase Chain: A: PDB Molecule: phosphonoacetate hydrolase; PDBTitle: crystal structure of phosphonoacetate hydrolase from sinorhizobium2 meliloti 1021 in complex with acetate
36	c2d1gB_	Alignment	not modelled	97.4	9	PDB header: hydrolase Chain: B: PDB Molecule: acid phosphatase; PDBTitle: structure of francisella tularensis acid phosphatase a (acpa) bound to2 orthovanadate
37	c3m0zD_	Alignment	not modelled	91.9	15	PDB header: lyase Chain: D: PDB Molecule: putative aldolase; PDBTitle: crystal structure of putative aldolase from klebsiella2 pneumoniae.
38	c3m6yA_	Alignment	not modelled	79.6	18	PDB header: lyase Chain: A: PDB Molecule: 4-hydroxy-2-oxoglutarate aldolase; PDBTitle: structure of 4-hydroxy-2-oxoglutarate aldolase from bacillus cereus at2 1.45 a resolution.
39	c3muxB_	Alignment	not modelled	75.3	18	PDB header: lyase Chain: B: PDB Molecule: putative 4-hydroxy-2-oxoglutarate aldolase; PDBTitle: the crystal structure of a putative 4-hydroxy-2-oxoglutarate aldolase2 from bacillus anthracis to 1.45a
40	c1qzwC_	Alignment	not modelled	47.3	18	PDB header: signaling protein/rna Chain: C: PDB Molecule: signal recognition 54 kda protein; PDBTitle: crystal structure of the complete core of archaeal srp and2 implications for inter-domain communication
41	d1vyva2	Alignment	not modelled	46.8	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
42	c3ib7A_	Alignment	not modelled	46.1	16	PDB header: hydrolase Chain: A: PDB Molecule: icc protein; PDBTitle: crystal structure of full length rv0805
43	c3tovB_	Alignment	not modelled	44.0	29	PDB header: transferase Chain: B: PDB Molecule: glycosyl transferase family 9; PDBTitle: the crystal structure of the glycosyl transferase family 9 from2 veillonella parvula dsm 2008
44	c2j37W_	Alignment	not modelled	43.9	17	PDB header: ribosome Chain: W: PDB Molecule: signal recognition particle 54 kda protein PDBTitle: model of mammalian srp bound to 80s rncs
45	c2iy3A_	Alignment	not modelled	28.9	15	PDB header: rna-binding Chain: A: PDB Molecule: signal recognition particle protein ffh; PDBTitle: structure of the e. coli signal recognition particle2 bound to a translating ribosome
46	d2nxfa1	Alignment	not modelled	27.8	16	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: ADPRibase-Mn-like
47	d1vyua2	Alignment	not modelled	26.9	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
48	d2z3va1	Alignment	not modelled	24.3	22	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: Universal stress protein-like
49	d1iq0a1	Alignment	not modelled	24.0	33	Fold: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases Superfamily: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases Family: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases
50	d1whua_	Alignment	not modelled	23.8	55	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Polynucleotide phosphorylase/guanosine pentaphosphate synthase (PNPase/GPSI), domain 3 Family: Polynucleotide phosphorylase/guanosine pentaphosphate synthase (PNPase/GPSI), domain 3
51	d1o57a1	Alignment	not modelled	23.8	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: N-terminal domain of Bacillus PurR
52	d1f7ua1	Alignment	not modelled	23.3	17	Fold: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases Superfamily: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases Family: Anticodon-binding domain of a subclass of class I aminoacyl-tRNA synthetases
53	d1ydga_	Aliament	not modelled	22.7	9	Fold: Flavodoxin-like Superfamily: Flavoproteins

						Family: WrbA-like
54	c2ip1A_	Alignment	not modelled	22.1	16	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure analysis of s. cerevisiae tryptophanyl trna2 synthetase
55	c2j289_	Alignment	not modelled	21.2	15	PDB header: ribosome Chain: 9: PDB Molecule: signal recognition particle 54; PDBTitle: model of e. coli srp bound to 70s rncs
56	c3dm5A_	Alignment	not modelled	20.0	17	PDB header: rna binding protein, transport protein Chain: A: PDB Molecule: signal recognition 54 kda protein; PDBTitle: structures of srp54 and srp19, the two proteins assembling2 the ribonucleic core of the signal recognition particle3 from the archaeon pyrococcus furiosus.
57	d1pkxa1	Alignment	not modelled	19.9	17	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Inosicase
58	c4aloB_	Alignment	not modelled	18.6	12	PDB header: transferase-hydrolase Chain: B: PDB Molecule: bifunctional purine biosynthesis protein purh; PDBTitle: crystal structure of mycobacterium tuberculosis purh complexed with2 aicar and a novel nucleotide cfair, at 2.48 a resolution.
59	d2a9pa1	Alignment	not modelled	17.6	14	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
60	c3m6mF_	Alignment	not modelled	17.5	26	PDB header: lyase/transferase Chain: F: PDB Molecule: sensory/regulatory protein rpfc; PDBTitle: crystal structure of rpff complexed with rec domain of rpfc
61	d1s8na_	Alignment	not modelled	15.3	17	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
62	d1ys7a2	Alignment	not modelled	14.9	11	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
63	c3cwoX_	Alignment	not modelled	14.4	25	PDB header: de novo protein Chain: X: PDB Molecule: beta/alpha-barrel protein based on 1thf and 1tmy; PDBTitle: a beta/alpha-barrel built by the combination of fragments2 from different folds
64	c3oaaO_	Alignment	not modelled	14.0	21	PDB header: hydrolase/transport protein Chain: O: PDB Molecule: atp synthase gamma chain; PDBTitle: structure of the e.coli f1-atp synthase inhibited by subunit epsilon
65	d1uoisy_	Alignment	not modelled	14.0	22	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
66	c2nwqA_	Alignment	not modelled	14.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: probable short-chain dehydrogenase; PDBTitle: short chain dehydrogenase from pseudomonas aeruginosa
67	d1g8fa3	Alignment	not modelled	13.6	23	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: ATP sulfurylase C-terminal domain
68	c2vy9A_	Alignment	not modelled	13.2	16	PDB header: gene regulation Chain: A: PDB Molecule: anti-sigma-factor antagonist; PDBTitle: molecular architecture of the stressosome, a signal2 integration and transduction hub
69	c3gg5D_	Alignment	not modelled	13.2	15	PDB header: hydrolase Chain: D: PDB Molecule: mre11; PDBTitle: the mre11:rad50 complex forms an atp dependent molecular clamp in dna2 double-strand break repair
70	c3dzdA_	Alignment	not modelled	13.2	14	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator (ntrc family); PDBTitle: crystal structure of sigma54 activator ntrc4 in the inactive2 state
71	d2enda_	Alignment	not modelled	12.6	63	Fold: T4 endonuclease V Superfamily: T4 endonuclease V Family: T4 endonuclease V
72	d1q74a_	Alignment	not modelled	12.6	16	Fold: LmbE-like Superfamily: LmbE-like Family: LmbE-like
73	d2f99a1	Alignment	not modelled	12.6	16	Fold: Cystatin-like Superfamily: NTF2-like Family: SnoAL-like polyketide cyclase
74	c2qy9A_	Alignment	not modelled	11.8	13	PDB header: protein transport Chain: A: PDB Molecule: cell division protein ftsy; PDBTitle: structure of the ng+1 construct of the e. coli srp receptor2 ftsy
75	d2b7oa1	Alignment	not modelled	11.8	19	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class-II DAHP synthetase
76	d1c8ba_	Alignment	not modelled	11.7	24	Fold: Phosphorylase/hydrolase-like Superfamily: HybD-like Family: Germination protease
77	c3hv0A_	Alignment	not modelled	11.6	10	PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase from cryptosporidium parvum
78	c2q8uA_	Alignment	not modelled	11.3	13	PDB header: hydrolase Chain: A: PDB Molecule: exonuclease, putative; PDBTitle: crystal structure of mre11 from thermotoga maritima msb8 (tm1635) at2 2.20 a resolution PDB header: oxidoreductase

79	c3lcmB_	Alignment	not modelled	10.6	13	Chain: B; PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of smu.1420 from streptococcus mutans ua159
80	c1iq0A_	Alignment	not modelled	10.3	35	PDB header: ligase Chain: A; PDB Molecule: arginyl-tRNA synthetase; PDBTitle: thermus thermophilus arginyl-tRNA synthetase
81	c2j48A_	Alignment	not modelled	10.1	11	PDB header: transferase Chain: A; PDB Molecule: two-component sensor kinase; PDBTitle: nmr structure of the pseudo-receiver domain of the cika2 protein.
82	c3t8yA_	Alignment	not modelled	10.0	19	PDB header: hydrolase Chain: A; PDB Molecule: chemotaxis response regulator protein-glutamate PDBTitle: crystal structure of the response regulator domain of thermotoga2 maritima cheb
83	c2gwrA_	Alignment	not modelled	9.9	12	PDB header: signaling protein Chain: A; PDB Molecule: dna-binding response regulator mtra; PDBTitle: crystal structure of the response regulator protein mtra from2 mycobacterium tuberculosis
84	c2g2qB_	Alignment	not modelled	9.7	27	PDB header: oxidoreductase Chain: B; PDB Molecule: glutaredoxin-2; PDBTitle: the crystal structure of g4, the poxviral disulfide oxidoreductase2 essential for cytoplasmic disulfide bond formation
85	c3grcD_	Alignment	not modelled	9.5	10	PDB header: transferase Chain: D; PDB Molecule: sensor protein, kinase; PDBTitle: crystal structure of a sensor protein from polaromonas sp.2 js666
86	c2xmoB_	Alignment	not modelled	9.3	23	PDB header: hydrolase Chain: B; PDB Molecule: lmo2642 protein; PDBTitle: the crystal structure of lmo2642
87	c2oq2A_	Alignment	not modelled	9.3	16	PDB header: protein transport Chain: A; PDB Molecule: putative signal recognition particle receptor; PDBTitle: crystal structure of chloroplast ftsy from arabidopsis2 thaliana
88	c2zwmA_	Alignment	not modelled	9.1	15	PDB header: transcription Chain: A; PDB Molecule: transcriptional regulatory protein yycf; PDBTitle: crystal structure of yycf receiver domain from bacillus2 subtilis
89	d1fs0g_	Alignment	not modelled	8.9	15	Fold: Pyruvate kinase C-terminal domain-like Superfamily: ATP synthase (F1-ATPase), gamma subunit Family: ATP synthase (F1-ATPase), gamma subunit
90	c3a0rB_	Alignment	not modelled	8.9	26	PDB header: transferase Chain: B; PDB Molecule: response regulator; PDBTitle: crystal structure of histidine kinase thka (tm1359) in complex with2 response regulator protein trra (tm1360)
91	d1lpbb2	Alignment	not modelled	8.8	44	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Pancreatic lipase, N-terminal domain
92	d2qwxa1	Alignment	not modelled	8.8	11	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
93	d1mb3a_	Alignment	not modelled	8.7	15	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
94	c3cu5B_	Alignment	not modelled	8.7	7	PDB header: transcription regulator Chain: B; PDB Molecule: two component transcriptional regulator, arac family; PDBTitle: crystal structure of a two component transcriptional regulator arac2 from clostridium phytofermentans isdg
95	c3bh1A_	Alignment	not modelled	8.6	26	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: upf0371 protein dip2346; PDBTitle: crystal structure of protein dip2346 from corynebacterium diphtheriae
96	c2qv0A_	Alignment	not modelled	8.6	15	PDB header: transcription Chain: A; PDB Molecule: protein mrke; PDBTitle: crystal structure of the response regulatory domain of2 protein mrke from klebsiella pneumoniae
97	d1dz3a_	Alignment	not modelled	8.4	7	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
98	d1hska2	Alignment	not modelled	8.4	23	Fold: Uridine diphospho-N-Acetylglucosaminylpyruvylglucosamine reductase, MurB, C-terminal domain Superfamily: Uridine diphospho-N-Acetylglucosaminylpyruvylglucosamine reductase, MurB, C-terminal domain Family: Uridine diphospho-N-Acetylglucosaminylpyruvylglucosamine reductase, MurB, C-terminal domain
99	c2xokG_	Alignment	not modelled	8.4	33	PDB header: hydrolase Chain: G; PDB Molecule: atp synthase subunit gamma, mitochondrial; PDBTitle: refined structure of yeast f1c10 atpase complex to 3 a2 resolution