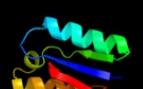
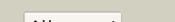
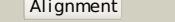
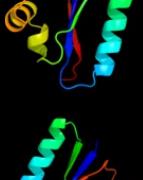
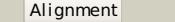
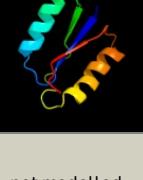
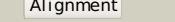
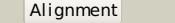
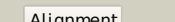


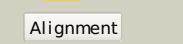
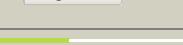
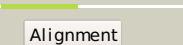
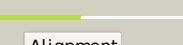
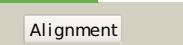
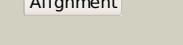
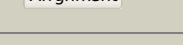
Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P37351
Date	Thu Jan 5 11:55:29 GMT 2012
Unique Job ID	c008354b7a67059b

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1nn4a_	Alignment		100.0	100	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
2	c3he8A_	Alignment		100.0	57	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase; PDBTitle: structural study of clostridium thermocellum ribose-5-phosphate2 isomerase b
3	c3m1pA_	Alignment		100.0	40	PDB header: isomerase Chain: A: PDB Molecule: ribose 5-phosphate isomerase; PDBTitle: structure of ribose 5-phosphate isomerase type b from trypanosoma2 cruzi, soaked with allose-6-phosphate
4	c3k7pA_	Alignment		100.0	40	PDB header: isomerase Chain: A: PDB Molecule: ribose 5-phosphate isomerase; PDBTitle: structure of mutant of ribose 5-phosphate isomerase type b from2 trypanosoma cruzi.
5	d2vvpa1	Alignment		100.0	32	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
6	d1o1xa_	Alignment		100.0	46	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
7	c3qd5B_	Alignment		100.0	39	PDB header: isomerase Chain: B: PDB Molecule: putative ribose-5-phosphate isomerase; PDBTitle: crystal structure of a putative ribose-5-phosphate isomerase from2 coccidioides immitis solved by combined iodide ion sad and mr
8	c3s5pA_	Alignment		100.0	45	PDB header: isomerase Chain: A: PDB Molecule: ribose 5-phosphate isomerase; PDBTitle: crystal structure of ribose-5-phosphate isomerase b rpib from giardia2 lamblia
9	c2ppwA_	Alignment		100.0	25	PDB header: isomerase Chain: A: PDB Molecule: conserved domain protein; PDBTitle: the crystal structure of uncharacterized ribose 5-phosphate isomerase2 rpib from streptococcus pneumoniae
10	c3onoA_	Alignment		100.0	21	PDB header: isomerase Chain: A: PDB Molecule: ribose/galactose isomerase; PDBTitle: crystal structure of ribose-5-phosphate isomerase lacab_rpib from2 vibrio parahaemolyticus
11	c3c5yD_	Alignment		100.0	18	PDB header: isomerase Chain: D: PDB Molecule: ribose/galactose isomerase; PDBTitle: crystal structure of a putative ribose 5-phosphate isomerase2 (sarco_3514) from novosphingobium aromaticivorans dsm at 1.81 a3 resolution

12	c2pjka			93.2	25	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
13	d1mkza			91.5	22	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
14	d1y5eal			91.0	21	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
15	d1p5dx1			90.0	27	Fold: Phosphoglucomutase, first 3 domains Superfamily: Phosphoglucomutase, first 3 domains Family: Phosphoglucomutase, first 3 domains
16	c3pdkB			89.0	29	PDB header: isomerase Chain: B: PDB Molecule: phosphoglcosamine mutase; PDBTitle: crystal structure of phosphoglcosamine mutase from b. anthracis
17	c3i3wB			89.0	25	PDB header: isomerase Chain: B: PDB Molecule: phosphoglcosamine mutase; PDBTitle: structure of a phosphoglcosamine mutase from francisella tularensis
18	c2is8A			88.5	20	PDB header: structural protein Chain: A: PDB Molecule: molybdopterin biosynthesis enzyme, moab; PDBTitle: crystal structure of the molybdopterin biosynthesis enzyme moab2 (ttha0341) from thermus thermophilus hb8
19	c1wqaB			88.3	31	PDB header: isomerase Chain: B: PDB Molecule: phospho-sugar mutase; PDBTitle: crystal structure of pyrococcus horikoshii phosphomannomutase/phosphoglucomutase complexed with mg2+
20	c2f7IA			87.8	34	PDB header: isomerase Chain: A: PDB Molecule: 455aa long hypothetical phospho-sugar mutase; PDBTitle: crystal structure of sulfolobus tokodaii phosphomannomutase/phosphoglucomutase
21	c3c04A		not modelled	82.0	31	PDB header: isomerase Chain: A: PDB Molecule: phosphomannomutase/phosphoglucomutase; PDBTitle: structure of the p368g mutant of pmm/pgm from p. aeruginosa
22	c2xecD		not modelled	81.4	18	PDB header: isomerase Chain: D: PDB Molecule: putative maleate isomerase; PDBTitle: noocardia farrinica maleate cis-trans isomerase bound to2 tris
23	c1tvmA		not modelled	80.8	35	PDB header: transferase Chain: A: PDB Molecule: pts system, galactitol-specific iib component; PDBTitle: nmr structure of enzyme gatb of the galactitol-specific2 phosphoenolpyruvate-dependent phosphotransferase system
24	c1tuoA		not modelled	80.3	22	PDB header: biosynthetic protein Chain: A: PDB Molecule: putative phosphomannomutase; PDBTitle: crystal structure of putative phosphomannomutase from thermus thermophilus hb8
25	d1jlja		not modelled	79.6	10	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
26	c3rfqC		not modelled	78.3	29	PDB header: biosynthetic protein Chain: C: PDB Molecule: pterin-4-alpha-carbinolamine dehydratase moab2; PDBTitle: crystal structure of pterin-4-alpha-carbinolamine dehydratase moab22 from mycobacterium marinum
27	d1uuya		not modelled	77.7	17	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
28	d2g2ca1		not modelled	74.2	22	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like

29	c1vkrA		Alignment	not modelled	70.8	32	PDB header: transferase Chain: A: PDB Molecule: mannitol-specific pts system enzyme iiabc components; PDBTitle: structure of iib domain of the mannitol-specific permease enzyme ii
30	d1vkra		Alignment	not modelled	70.8	32	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Lactose/Cellobiose specific IIB subunit
31	c3czcA		Alignment	not modelled	70.2	31	PDB header: transferase Chain: A: PDB Molecule: rmpb; PDBTitle: the crystal structure of a putative pts iib(ptxb) from2 streptococcus mutans
32	d2gaxa1		Alignment	not modelled	68.6	10	Fold: Peptidyl-tRNA hydrolase II Superfamily: Peptidyl-tRNA hydrolase II Family: Peptidyl-tRNA hydrolase II
33	c3kbqA		Alignment	not modelled	67.7	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein ta0487; PDBTitle: the crystal structure of the protein cina with unknown function from2 thermoplasma acidophilum
34	d2ftsa3		Alignment	not modelled	67.1	18	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
35	d2f7wa1		Alignment	not modelled	66.7	9	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: Moga-like
36	c2yxba		Alignment	not modelled	65.7	23	PDB header: isomerase Chain: A: PDB Molecule: coenzyme b12-dependent mutase; PDBTitle: crystal structure of the methylmalonyl-coa mutase alpha-subunit from2 aeropyrum pernix
37	c3gpiA		Alignment	not modelled	61.6	32	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: nad-dependent epimerase/dehydratase; PDBTitle: structure of putative nad-dependent epimerase/dehydratase2 from methyllobacillus flagellatus
38	c3bg9A		Alignment	not modelled	61.2	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: predicted rosmann fold nucleotide-binding domain- PDBTitle: crystal structure of predicted nucleotide-binding protein from2 idiomarina baltica os145
39	c2dgD		Alignment	not modelled	60.5	16	PDB header: lyase Chain: D: PDB Molecule: 223aa long hypothetical arylmalonate decarboxylase; PDBTitle: crystal structure of st0656, a function unknown protein from2 sulfobolbus tokodaii
40	d3bula2		Alignment	not modelled	60.1	22	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
41	d1v7ra		Alignment	not modelled	59.1	18	Fold: Anticodon-binding domain-like Superfamily: ITPase-like Family: ITPase (Ham1)
42	d1uz5a3		Alignment	not modelled	58.4	13	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
43	c1k98A		Alignment	not modelled	54.0	22	PDB header: transferase Chain: A: PDB Molecule: methionine synthase; PDBTitle: adomet complex of meth c-terminal fragment
44	d2ngra3		Alignment	not modelled	46.4	29	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
45	d1di6a		Alignment	not modelled	46.3	9	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: Moga-like
46	c3ezxA		Alignment	not modelled	45.3	17	PDB header: transferase Chain: A: PDB Molecule: monomethylamine corrinoid protein 1; PDBTitle: structure of methanosaclina barkeri monomethylamine2 corrinoid protein
47	d1fmfa		Alignment	not modelled	44.5	30	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
48	c2nqqA		Alignment	not modelled	44.3	29	PDB header: biosynthetic protein Chain: A: PDB Molecule: molybdopterin biosynthesis protein moea; PDBTitle: moea r137q
49	c1c4gB		Alignment	not modelled	41.5	21	PDB header: transferase Chain: B: PDB Molecule: protein (alpha-d-glucose 1-phosphate PDBTitle: phosphoglucomutase vanadate based transition state analog2 complex
50	c2g4rB		Alignment	not modelled	41.4	26	PDB header: biosynthetic protein Chain: B: PDB Molecule: molybdopterin biosynthesis mog protein; PDBTitle: anomalous substructure of moga
51	c1kfIA		Alignment	not modelled	40.9	13	PDB header: isomerase Chain: A: PDB Molecule: phosphoglucomutase 1; PDBTitle: crystal structure of the exocytosis-sensitive2 phosphoprotein, pp63/parafusin (phosphoglucomutase) from3 paramecium
52	d1ws6a1		Alignment	not modelled	40.4	15	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Yhhf-like
53	c1bmtB		Alignment	not modelled	38.1	22	PDB header: methyltransferase Chain: B: PDB Molecule: methionine synthase; PDBTitle: how a protein binds b12: a 3.0 angstrom x-ray structure of2 the b12-binding domains of methionine synthase
54	c2r60A		Alignment	not modelled	37.8	25	PDB header: transferase Chain: A: PDB Molecule: glycosyl transferase, group 1; PDBTitle: structure of apo sucrose phosphate synthase (sps) of2

						halothermothrix orenii
55	c2fuvB	Alignment	not modelled	37.0	22	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucumutase; PDBTitle: phosphoglucumutase from salmonella typhimurium.
56	c3dz1A	Alignment	not modelled	35.8	13	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 rhodopseudomonas palustris at 1.87a resolution
57	d7reqa2	Alignment	not modelled	35.3	17	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
58	d1xova2	Alignment	not modelled	34.9	14	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: N-acetyl muramoyl-L-alanine amidase-like
59	c3ir1F	Alignment	not modelled	34.1	26	PDB header: protein binding Chain: F: PDB Molecule: outer membrane lipoprotein gna1946; PDBTitle: crystal structure of lipoprotein gna1946 from neisseria2 meningitidis
60	c3tngA	Alignment	not modelled	33.5	23	PDB header: transferase Chain: A: PDB Molecule: lmo1369 protein; PDBTitle: the crystal structure of a possible phosphate acetyl/butyryl2 transferase from listeria monocytogenes egd-e.
61	c3grzA	Alignment	not modelled	33.4	20	PDB header: transferase Chain: A: PDB Molecule: ribosomal protein l11 methyltransferase; PDBTitle: crystal structure of ribosomal protein l11 methylase from2 lactobacillus delbrueckii subsp. bulgaricus
62	d2jgra1	Alignment	not modelled	32.8	19	Fold: NAD kinase/diacylglycerol kinase-like Superfamily: NAD kinase/diacylglycerol kinase-like Family: Diacylglycerol kinase-like
63	d1fp1d2	Alignment	not modelled	32.5	12	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Plant O-methyltransferase, C-terminal domain
64	d1iiba	Alignment	not modelled	31.5	25	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Lactose/Cellobiose specific IIB subunit
65	c3gxaA	Alignment	not modelled	30.8	30	PDB header: protein binding Chain: A: PDB Molecule: outer membrane lipoprotein gna1946; PDBTitle: crystal structure of gna1946
66	c2jr1A	Alignment	not modelled	30.7	24	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulator (ntrc family); PDBTitle: solution structure of the beryllium fluoride-activated ntrc4 receiver2 domain dimer
67	c2esrB	Alignment	not modelled	30.7	15	PDB header: transferase Chain: B: PDB Molecule: methyltransferase; PDBTitle: conserved hypothetical protein- streptococcus pyogenes
68	c3dzca	Alignment	not modelled	29.8	20	PDB header: isomerase Chain: A: PDB Molecule: udp-n-acetylglucosamine 2-epimerase; PDBTitle: 2.35 angstrom resolution structure of wecb (vc0917), a udp-n-2 acetylglucosamine 2-epimerase from vibrio cholerae.
69	c2p35A	Alignment	not modelled	29.0	11	PDB header: transferase Chain: A: PDB Molecule: trans-aconitate 2-methyltransferase; PDBTitle: crystal structure of trans-aconitate methyltransferase from2 agrobacterium tumefaciens
70	c3kkIA	Alignment	not modelled	28.7	17	PDB header: hydrolase Chain: A: PDB Molecule: probable chaperone protein hsp33; PDBTitle: crystal structure of functionally unknown hsp33 from2 saccharomyces cerevisiae
71	c2i2xD	Alignment	not modelled	28.6	35	PDB header: transferase Chain: D: PDB Molecule: methyltransferase 1; PDBTitle: crystal structure of methanol:cobalamin methyltransferase complex2 mtabc from methanoscincus barkeri
72	c3d4oA	Alignment	not modelled	28.5	15	PDB header: oxidoreductase Chain: A: PDB Molecule: dipicolinate synthase subunit a; PDBTitle: crystal structure of dipicolinate synthase subunit a (np_243269.1)2 from bacillus halodurans at 2.10 a resolution
73	d2naca2	Alignment	not modelled	28.2	13	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
74	d1vhta	Alignment	not modelled	28.0	26	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
75	c3crnA	Alignment	not modelled	27.9	24	PDB header: signaling protein Chain: A: PDB Molecule: response regulator receiver domain protein, chey-like; PDBTitle: crystal structure of response regulator receiver domain protein (chey-2 like) from methanospirillum hungatei jf-1
76	c1yr3A	Alignment	not modelled	27.8	17	PDB header: transferase Chain: A: PDB Molecule: xanthosine phosphorylase; PDBTitle: escherichia coli purine nucleoside phosphorylase ii, the2 product of the xapa gene
77	d1fp2a2	Alignment	not modelled	27.0	19	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Plant O-methyltransferase, C-terminal domain
78	c3h5dD	Alignment	not modelled	26.6	15	PDB header: lyase Chain: D: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: dihydrodipicolinate synthase from drug-resistant streptococcus2 pneumoniae
79	c3clhA	Alignment	not modelled	26.5	17	PDB header: lyase Chain: A: PDB Molecule: 3-dehydroquinate synthase; PDBTitle: crystal structure of 3-dehydroquinate synthase (dhqs)from2 helicobacter pylori
						PDB header: sugar binding protein Chain: C: PDB Molecule: putative nucleotide sugar epimerase/

80	c2q1wC	Alignment	not modelled	25.8	41	dehydoratase; PDB header: crystal structure of the bordetella bronchiseptica enzyme wbmh in2 complex with nad+
81	c1y80A	Alignment	not modelled	24.8	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: predicted cobalamin binding protein; PDB Title: structure of a corrinoid (factor iiim)-binding protein from2 moorella thermoaceta
82	d3pmga1	Alignment	not modelled	24.8	16	Fold: Phosphoglucomutase, first 3 domains Superfamily: Phosphoglucomutase, first 3 domains Family: Phosphoglucomutase, first 3 domains
83	d1mgta2	Alignment	not modelled	24.7	33	Fold: Ribonuclease H-like motif Superfamily: Methylated DNA-protein cysteine methyltransferase domain Family: Methylated DNA-protein cysteine methyltransferase domain
84	d1j8fa	Alignment	not modelled	24.2	30	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Sir2 family of transcriptional regulators
85	d1qrda	Alignment	not modelled	24.0	20	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
86	c2rirA	Alignment	not modelled	23.5	18	PDB header: oxidoreductase Chain: A: PDB Molecule: dipicolinate synthase, a chain; PDB Title: crystal structure of dipicolinate synthase, a chain, from bacillus2 subtilis
87	c3nbmA	Alignment	not modelled	22.4	17	PDB header: transferase Chain: A: PDB Molecule: pts system, lactose-specific iibc components; PDB Title: the lactose-specific iib component domain structure of the2 phosphoenolpyruvate:carbohydrate phosphotransferase system (pts) from3 streptococcus pneumoniae.
88	c2i2aA	Alignment	not modelled	22.1	33	PDB header: transferase Chain: A: PDB Molecule: probable inorganic polyphosphate/atp-nad kinase 1; PDB Title: crystal structure of lmnadk1 from listeria monocytogenes
89	d1lrza3	Alignment	not modelled	21.9	10	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: FemXAB nonribosomal peptidyltransferases
90	c3g07C	Alignment	not modelled	21.7	23	PDB header: transferase Chain: C: PDB Molecule: 7sk snrna methylphosphate capping enzyme; PDB Title: methyltransferase domain of human bicoid-interacting protein2 3 homolog (drosophila)
91	d1qe5a	Alignment	not modelled	21.6	31	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
92	c3i42A	Alignment	not modelled	21.5	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: response regulator receiver domain protein (cheY- PDB Title: structure of response regulator receiver domain (cheY-like)2 from methyllobacillus flagellatus
93	c3nhzA	Alignment	not modelled	21.4	19	PDB header: dna binding protein Chain: A: PDB Molecule: two component system transcriptional regulator mtra; PDB Title: structure of n-terminal domain of mtra
94	d2caral	Alignment	not modelled	21.4	17	Fold: Anticodon-binding domain-like Superfamily: ITPase-like Family: ITPase (Ham1)
95	c3daqB	Alignment	not modelled	21.3	15	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDB Title: crystal structure of dihydrodipicolinate synthase from methicillin-2 resistant staphylococcus aureus
96	d2nxca1	Alignment	not modelled	20.7	21	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Ribosomal protein L11 methyltransferase PrmA
97	d1gpja2	Alignment	not modelled	20.7	24	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Aminoacid dehydrogenase-like, C-terminal domain
98	c3cfyA	Alignment	not modelled	20.1	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative luxo repressor protein; PDB Title: crystal structure of signal receiver domain of putative luxo2 repressor protein from vibrio parahaemolyticus
99	d1wd7a	Alignment	not modelled	20.0	18	Fold: HemD-like Superfamily: HemD-like Family: HemD-like