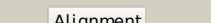
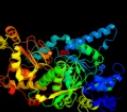
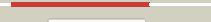
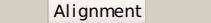
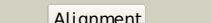
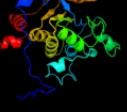
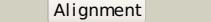
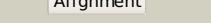
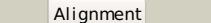


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P25516
Date	Thu Jan 5 11:41:52 GMT 2012
Unique Job ID	b6ee1aed79cad8cc

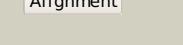
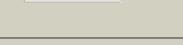
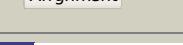
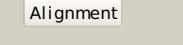
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2b3yB_			100.0	52	PDB header: lyase Chain: B; PDB Molecule: iron-responsive element binding protein 1; PDBTitle: structure of a monoclinic crystal form of human cytosolic aconitase2 (irp1)
2	c5acnA_			100.0	29	PDB header: lyase(carbon-oxygen) Chain: A; PDB Molecule: aconitase; PDBTitle: structure of activated aconitase. formation of the (4fe-4s)2 cluster in the crystal
3	d2b3ya2			100.0	52	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
4	d1acoa2			100.0	29	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
5	d1l5ja3			100.0	23	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
6	c1l5jB_			100.0	22	PDB header: lyase Chain: B; PDB Molecule: aconitate hydratase 2; PDBTitle: crystal structure of e. coli aconitase b.
7	d2b3ya1			100.0	54	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: LeuD-like
8	d1acoal			100.0	28	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: LeuD-like
9	d1v7la_			100.0	35	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: LeuD-like
10	c2pkpA_			100.0	31	PDB header: lyase Chain: A; PDB Molecule: homoaconitase small subunit; PDBTitle: crystal structure of 3-isopropylmalate dehydratase (leuD)2 from methanocaldococcus jannaschii dsm2661 (mj1271)
11	d1l5ja2			100.0	20	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: LeuD-like

12	c2hcuA	Alignment		100.0	25	PDB header: lyase Chain: A: PDB Molecule: 3-isopropylmalate dehydratase small subunit; PDBTitle: crystal structure of smu.1381 (or leud) from streptococcus2 mutans
13	c3q3wB	Alignment		100.0	23	PDB header: transferase Chain: B: PDB Molecule: 3-isopropylmalate dehydratase small subunit; PDBTitle: isopropylmalate isomerase small subunit from campylobacter jejuni.
14	c3h5jA	Alignment		100.0	27	PDB header: lyase Chain: A: PDB Molecule: 3-isopropylmalate dehydratase small subunit; PDBTitle: leud_1-168 small subunit of isopropylmalate isomerase (rv2987c) from2 mycobacterium tuberculosis
15	d1cf1a1	Alignment		71.8	14	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Arrestin/Vps26-like
16	d1g4ma1	Alignment		69.4	28	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Arrestin/Vps26-like
17	d2r4qa1	Alignment		63.9	35	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Fructose specific IIB subunit-like
18	c3c52B	Alignment		59.5	30	PDB header: lyase Chain: B: PDB Molecule: fructose-bisphosphate aldolase; PDBTitle: class ii fructose-1,6-bisphosphate aldolase from2 helicobacter pylori in complex with3 phosphoglycolohydroxamic acid, a competitive inhibitor
19	c21swB	Alignment		54.4	28	PDB header: lyase Chain: B: PDB Molecule: putative fructose-1,6-bisphosphate aldolase; PDBTitle: structure of giardia fructose-1,6-bisphosphate aldolase in2 complex with phosphoglycolohydroxamate
20	d1t3va	Alignment		43.3	11	Fold: Ribonuclease H-like motif Superfamily: Nitrogenase accessory factor-like Family: MTH1175-like
21	d1rdua	Alignment	not modelled	40.8	15	Fold: Ribonuclease H-like motif Superfamily: Nitrogenase accessory factor-like Family: MTH1175-like
22	c3elfA	Alignment	not modelled	40.2	24	PDB header: lyase Chain: A: PDB Molecule: fructose-bisphosphate aldolase; PDBTitle: structural characterization of tetrameric mycobacterium tuberculosis2 fructose 1,6-bisphosphate aldolase - substrate binding and catalysis3 mechanism of a class iia bacterial aldolase
23	d1dosa	Alignment	not modelled	34.8	38	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
24	d2r48a1	Alignment	not modelled	31.6	39	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Fructose specific IIB subunit-like
25	d1p90a	Alignment	not modelled	29.5	16	Fold: Ribonuclease H-like motif Superfamily: Nitrogenase accessory factor-like Family: Nitrogenase accessory factor
26	d1o13a	Alignment	not modelled	26.4	13	Fold: Ribonuclease H-like motif Superfamily: Nitrogenase accessory factor-like Family: MTH1175-like
27	c2gp4A	Alignment	not modelled	25.2	14	PDB header: lyase Chain: A: PDB Molecule: 6-phosphogluconate dehydratase; PDBTitle: structure of [fes]cluster-free apo form of 6-phosphogluconate2 dehydratase from shewanella oneidensis
28	c2yx6C	Alignment	not modelled	24.7	15	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: hypothetical protein ph0822; PDBTitle: crystal structure of ph0822
29	d1o60a	Alignment	not modelled	23.7	16	Fold: TIM beta/alpha-barrel Superfamily: Aldolase

						Family: Class I DAHP synthetase
30	c3bolB_	Alignment	not modelled	23.7	21	PDB header: transferase Chain: B: PDB Molecule: 5-methyltetrahydrofolate s-homocysteine PDBTitle: cobalamin-dependent methionine synthase (1-566) from2 thermotoga maritima complexed with zn2+
31	c3qm3C_	Alignment	not modelled	23.6	23	PDB header: lyase Chain: C: PDB Molecule: fructose-bisphosphate aldolase; PDBTitle: 1.85 angstrom resolution crystal structure of fructose-bisphosphate aldolase (fba) from campylobacter jejuni
32	c2wbrA_	Alignment	not modelled	23.5	31	PDB header: dna-binding protein Chain: A: PDB Molecule: gw182; PDBTitle: the rrm domain in gw182 proteins contributes to mirna-2 mediated gene silencing
33	c3q94B_	Alignment	not modelled	23.0	28	PDB header: lyase Chain: B: PDB Molecule: fructose-bisphosphate aldolase, class ii; PDBTitle: the crystal structure of fructose 1,6-bisphosphate aldolase from2 bacillus anthracis str. 'ames ancestor'
34	c3l2iB_	Alignment	not modelled	22.7	15	PDB header: lyase Chain: B: PDB Molecule: 3-dehydroquinate dehydratase; PDBTitle: 1.85 angstrom crystal structure of the 3-dehydroquinate dehydratase2 (arod) from salmonella typhimurium lt2.
35	d1gvfa_	Alignment	not modelled	22.5	21	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
36	d1t0tv_	Alignment	not modelled	22.3	23	Fold: Ferrodoxin-like Superfamily: Dimeric alpha+beta barrel Family: Chlorite dismutase-like
37	d1rvga_	Alignment	not modelled	21.4	29	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
38	c3iz5O_	Alignment	not modelled	19.9	22	PDB header: ribosome Chain: Q: PDB Molecule: 60s ribosomal protein l5 (l18p); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
39	c2rhbD_	Alignment	not modelled	19.8	33	PDB header: viral protein Chain: D: PDB Molecule: uridylate-specific endoribonuclease; PDBTitle: crystal structure of nsp15-h234a mutant- hexamer in2 asymmetric unit
40	d3bofa2	Alignment	not modelled	19.4	19	Fold: TIM beta/alpha-barrel Superfamily: Homocysteine S-methyltransferase Family: Homocysteine S-methyltransferase
41	d1iuka_	Alignment	not modelled	19.2	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
42	c2kyrA_	Alignment	not modelled	19.1	24	PDB header: transferase Chain: A: PDB Molecule: fructose-like phosphotransferase enzyme iib component 1; PDBTitle: solution structure of enzyme iib subunit of pts system from2 escherichia coli k12. northeast structural genomics consortium target3 er315/ontario center for structural proteomics target ec0544
43	c2wfbA_	Alignment	not modelled	18.7	19	PDB header: biosynthetic protein Chain: A: PDB Molecule: putative uncharacterized protein orp; PDBTitle: high resolution structure of the apo form of the orange2 protein (orp) from desulfovibrio gigas
44	d1vdha_	Alignment	not modelled	18.7	18	Fold: Ferrodoxin-like Superfamily: Dimeric alpha+beta barrel Family: Chlorite dismutase-like
45	d2aioa1	Alignment	not modelled	18.4	19	Fold: Metallo-hydrolase/oxidoreductase Superfamily: Metallo-hydrolase/oxidoreductase Family: Zn metallo-beta-lactamase
46	d1eo1a_	Alignment	not modelled	17.4	22	Fold: Ribonuclease H-like motif Superfamily: Nitrogenase accessory factor-like Family: MTH1175-like
47	c3c3jA_	Alignment	not modelled	16.7	10	PDB header: isomerase Chain: A: PDB Molecule: putative tagatose-6-phosphate ketose/aldose isomerase; PDBTitle: crystal structure of tagatose-6-phosphate ketose/aldose isomerase from2 escherichia coli
48	c3dmvA_	Alignment	not modelled	16.3	25	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein fdra; PDBTitle: crystal structure of a predicated acyl-coa synthetase from e.coli
49	d1eg7a_	Alignment	not modelled	16.1	19	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nitrogenase iron protein-like
50	c3l4gl_	Alignment	not modelled	16.0	33	PDB header: ligase Chain: I: PDB Molecule: phenylalanyl-tRNA synthetase alpha chain; PDBTitle: crystal structure of homo sapiens cytoplasmic phenylalanyl-tRNA2 synthetase
51	d2ghra1	Alignment	not modelled	16.0	19	Fold: Flavodoxin-like Superfamily: Class I glutamine amidotransferase-like Family: HTS-like
52	c2yrvA_	Alignment	not modelled	15.8	24	PDB header: transcription Chain: A: PDB Molecule: at-rich interactive domain-containing protein 4a; PDBTitle: solution structure of the rbb1nt domain of human2 rb(retinoblastoma)-binding protein 1
53	c2oxIA_	Alignment	not modelled	15.2	14	PDB header: gene regulation Chain: A: PDB Molecule: hypothetical protein ymgb; PDBTitle: structure and function of the e. coli protein ymgb: a protein critical2 for biofilm formation and acid resistance
54	d2ac7a1	Alignment	not modelled	15.1	17	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases

55	d2gp4a2		Alignment	not modelled	14.9	12	Fold: IlvD/EDD N-terminal domain-like Superfamily: IlvD/EDD N-terminal domain-like Family: IlvD/EDD N-terminal domain-like
56	d2ieaa3		Alignment	not modelled	14.6	29	Fold: TK C-terminal domain-like Superfamily: TK C-terminal domain-like Family: Transketolase C-terminal domain-like
57	d2zdral		Alignment	not modelled	14.0	23	Fold: beta-clip Superfamily: AFP III-like domain Family: AFP III-like domain
58	d1jjca_		Alignment	not modelled	13.9	21	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
59	c2vxhF_		Alignment	not modelled	13.7	9	PDB header: oxidoreductase Chain: F: PDB Molecule: chlorite dismutase; PDBTitle: the crystal structure of chlorite dismutase: a detox enzyme2 producing molecular oxygen
60	c3cf4A_		Alignment	not modelled	13.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: acetyl-coa decarboxylase/synthase alpha subunit; PDBTitle: structure of the codh component of the m. barkeri acds complex
61	c3qpbB_		Alignment	not modelled	13.5	21	PDB header: transferase Chain: B: PDB Molecule: uridine phosphorylase; PDBTitle: crystal structure of streptococcus pyogenes uridine phosphorylase2 reveals a subclass of the np-i superfamily
62	c2o8vA_		Alignment	not modelled	13.1	20	PDB header: oxidoreductase Chain: A: PDB Molecule: phosphoadenosine phosphosulfate reductase; PDBTitle: paps reductase in a covalent complex with thioredoxin c35a
63	c3mwba_		Alignment	not modelled	13.1	15	PDB header: lyase Chain: A: PDB Molecule: prephenate dehydratase; PDBTitle: the crystal structure of prephenate dehydratase in complex with l-phe2 from arthrobacter aurescens to 2.0a
64	c2jz2A_		Alignment	not modelled	13.0	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ssl0352 protein; PDBTitle: solution nmr structure of ssl0352 protein from synchocystis sp. pcc2 6803. northeast structural genomics consortium target sgr42
65	d1k6ka_		Alignment	not modelled	12.9	25	Fold: Double Clp-N motif Superfamily: Double Clp-N motif Family: Double Clp-N motif
66	c2r2dC_		Alignment	not modelled	12.5	21	PDB header: hydrolase Chain: C: PDB Molecule: zn-dependent hydrolases; PDBTitle: structure of a quorum-quenching lactonase (aiib) from agrobacterium tumefaciens
67	c2w9mB_		Alignment	not modelled	12.5	35	PDB header: dna replication Chain: B: PDB Molecule: polymerase x; PDBTitle: structure of family x dna polymerase from deinococcus radiodurans
68	c1pt1B_		Alignment	not modelled	12.5	19	PDB header: lyase Chain: B: PDB Molecule: aspartate 1-decarboxylase; PDBTitle: unprocessed pyruvoyl dependent aspartate decarboxylase with histidine2 11 mutated to alanine
69	c2ebbA_		Alignment	not modelled	12.4	18	PDB header: lyase Chain: A: PDB Molecule: pterin-4-alpha-carbinolamine dehydratase; PDBTitle: crystal structure of pterin-4-alpha-carbinolamine2 dehydratase (pterin carbinolamine dehydratase) from geobacillus kaustophilus hta426
70	d1vjta1		Alignment	not modelled	12.3	28	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
71	d1ppya_		Alignment	not modelled	11.6	19	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Pyruvoyl dependent aspartate decarboxylase, ADC
72	d1vhwa_		Alignment	not modelled	11.5	20	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
73	c1z34A_		Alignment	not modelled	11.5	18	PDB header: transferase Chain: A: PDB Molecule: purine nucleoside phosphorylase; PDBTitle: crystal structure of trichomonas vaginalis purine nucleoside2 phosphorylase complexed with 2-fluoro-2'-deoxyadenosine
74	c3nn4C_		Alignment	not modelled	11.3	9	PDB header: oxidoreductase Chain: C: PDB Molecule: chlorite dismutase; PDBTitle: structure of chlorite dismutase from candidatus nitrospira defluvii r173k mutant
75	c2gacD_		Alignment	not modelled	11.2	30	PDB header: hydrolase Chain: D: PDB Molecule: glycosylasparaginase; PDBTitle: t152 c mutant glycosylasparaginase from flavobacterium meningosepticum
76	d1lt7a_		Alignment	not modelled	10.9	20	Fold: TIM beta/alpha-barrel Superfamily: Homocysteine S-methyltransferase Family: Homocysteine S-methyltransferase
77	d1p9ea_		Alignment	not modelled	10.9	19	Fold: Metallo-hydrolase/oxidoreductase Superfamily: Metallo-hydrolase/oxidoreductase Family: Methyl parathion hydrolase
78	c1p9eA_		Alignment	not modelled	10.9	19	PDB header: hydrolase Chain: A: PDB Molecule: methyl parathion hydrolase; PDBTitle: crystal structure analysis of methyl parathion hydrolase from pseudomonas sp wbc-3
79	d1ybfa_		Alignment	not modelled	10.9	20	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases

80	c2kmfA		Alignment	not modelled	10.7	28	PDB header: photosynthesis Chain: A: PDB Molecule: photosystem ii 11 kda protein; PDBTitle: solution structure of psb27 from cyanobacterial photosystem2 ii
81	c1b70A		Alignment	not modelled	10.7	21	PDB header: ligase Chain: A: PDB Molecule: phenylalanyl-trna synthetase; PDBTitle: phenylalanyl trna synthetase complexed with phenylalanine
82	c3do6B		Alignment	not modelled	10.6	18	PDB header: ligase Chain: B: PDB Molecule: formate--tetrahydrofolate ligase; PDBTitle: crystal structure of putative formyltetrahydrofolate synthetase (tm1766) from thermotoga maritima at 1.85 a3 resolution
83	d1hyua4		Alignment	not modelled	10.6	23	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
84	d1uf2c1		Alignment	not modelled	10.4	21	Fold: A virus capsid protein alpha-helical domain Superfamily: A virus capsid protein alpha-helical domain Family: Phytoreovirus capsid
85	d1je0a		Alignment	not modelled	10.4	20	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
86	c3fz5C		Alignment	not modelled	10.3	14	PDB header: isomerase Chain: C: PDB Molecule: possible 2-hydroxychromene-2-carboxylate isomerase; PDBTitle: crystal structure of possible 2-hydroxychromene-2-carboxylate2 isomerase from rhodobacter sphaeroides
87	d1umya		Alignment	not modelled	10.3	20	Fold: TIM beta/alpha-barrel Superfamily: Homocysteine S-methyltransferase Family: Homocysteine S-methyltransferase
88	c2nu8D		Alignment	not modelled	10.2	18	PDB header: ligase Chain: D: PDB Molecule: succinyl-coa ligase [adp-forming] subunit alpha; PDBTitle: c123at mutant of e. coli succinyl-coa synthetase
89	c1p0yA		Alignment	not modelled	10.1	18	PDB header: transferase Chain: A: PDB Molecule: ribulose-1,5 bisphosphate carboxylase/oxygenase PDBTitle: crystal structure of the set domain of lsmt bound to2 melysine and adohcy
90	c3r2nC		Alignment	not modelled	9.9	26	PDB header: hydrolase Chain: C: PDB Molecule: cytidine deaminase; PDBTitle: crystal structure of cytidine deaminase from mycobacterium leprae
91	d3c8ya1		Alignment	not modelled	9.8	17	Fold: Fe-only hydrogenase Superfamily: Fe-only hydrogenase Family: Fe-only hydrogenase
92	d2pt0a1		Alignment	not modelled	9.8	13	Fold: (Phosphotyrosine protein) phosphatases II Superfamily: (Phosphotyrosine protein) phosphatases II Family: Myo-inositol hexaphosphate phosphohydrolase (phytase) PhyA
93	c2v4oB		Alignment	not modelled	9.6	29	PDB header: hydrolase Chain: B: PDB Molecule: multifunctional protein sur e; PDBTitle: crystal structure of salmonella typhimurium sur e at 2.752 angstrom resolution in monoclinic form
94	c3bjieA		Alignment	not modelled	9.1	19	PDB header: transferase Chain: A: PDB Molecule: nucleoside phosphorylase, putative; PDBTitle: crystal structure of trypanosoma brucei nucleoside phosphorylase shows2 uridine phosphorylase activity
95	d1th7a1		Alignment	not modelled	9.1	23	Fold: Sm-like fold Superfamily: Sm-like ribonucleoproteins Family: Sm motif of small nuclear ribonucleoproteins, SNRNP
96	c3oghB		Alignment	not modelled	8.9	20	PDB header: ligase Chain: B: PDB Molecule: putative uncharacterized protein yvmc; PDBTitle: crystal structure of b. licheniformis cdps yvmc-blc
97	c2phjA		Alignment	not modelled	8.9	31	PDB header: hydrolase Chain: A: PDB Molecule: 5'-nucleotidase sur e; PDBTitle: crystal structure of sur e protein from aquifex aeolicus
98	c3bl5E		Alignment	not modelled	8.9	19	PDB header: hydrolase Chain: E: PDB Molecule: queuosine biosynthesis protein quec; PDBTitle: crystal structure of quec from bacillus subtilis: an enzyme2 involved in preq1 biosynthesis
99	d1pvda3		Alignment	not modelled	8.7	23	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase PP module