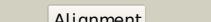
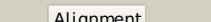
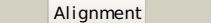
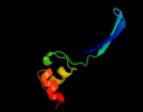
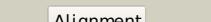
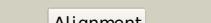
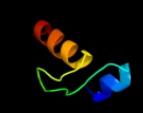


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P42630
Date	Thu Jan 5 12:01:59 GMT 2012
Unique Job ID	5a29bc9d62e99a8c

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2iafa1			100.0	43	Fold: FwdE/GAPDH domain-like Superfamily: Serine metabolism enzymes domain Family: Serine dehydratase beta chain-like
2	c1ygA_			99.7	14	PDB header: oxidoreductase Chain: A: PDB Molecule: d-3-phosphoglycerate dehydrogenase; PDBTitle: crystal structure of d-3-phosphoglycerate dehydrogenase from2 mycobacterium tuberculosis
3	d1ygA4			99.4	16	Fold: FwdE/GAPDH domain-like Superfamily: Serine metabolism enzymes domain Family: SerA intervening domain-like
4	c2hp0A_			98.1	14	PDB header: isomerase Chain: A: PDB Molecule: ids-epimerase; PDBTitle: crystal structure of iminodisuccinate epimerase
5	d1szqA_			97.6	15	Fold: 2-methylcitrate dehydratase PrpD Superfamily: 2-methylcitrate dehydratase PrpD Family: 2-methylcitrate dehydratase PrpD
6	c3u4gA_			58.6	31	PDB header: transferase Chain: A: PDB Molecule: namn:dmb phosphoribosyltransferase; PDBTitle: the structure of cobt from pyrococcus horikoshii
7	c3s1sA_			36.0	31	PDB header: hydrolase, transferase Chain: A: PDB Molecule: restriction endonuclease bpusi; PDBTitle: characterization and crystal structure of the type iig restriction2 endonuclease bpusi
8	d1ug2a_			34.1	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Myb/SANT domain
9	d2i7pa1			31.2	29	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Fumble-like
10	d1no5a_			27.2	22	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
11	c2kelB_			24.3	19	PDB header: transcription repressor Chain: B: PDB Molecule: uncharacterized protein 56b; PDBTitle: structure of the transcription regulator svtr from the2 hyperthermophilic archaeal virus sirv1

12	c2rkbE			21.8	14	PDB header: lyase Chain: E: PDB Molecule: serine dehydratase-like; PDBTitle: serine dehydratase like-1 from human cancer cells
13	c1knyA			21.7	20	PDB header: transferase Chain: A: PDB Molecule: kanamycin nucleotidyltransferase; PDBTitle: kanamycin nucleotidyltransferase
14	c1yy3A			18.2	57	PDB header: isomerase Chain: A: PDB Molecule: s-adenosylmethionine:tRNA ribosyltransferase- PDBTitle: structure of s-adenosylmethionine:tRNA ribosyltransferase-2 isomerase (queA)
15	c2rffA			15.6	19	PDB header: transferase Chain: A: PDB Molecule: putative nucleotidyltransferase; PDBTitle: crystal structure of a putative nucleotidyltransferase2 (np_343093.1) from sulfolobus solfataricus at 1.40 a3 resolution
16	d1knyA2			15.5	20	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Kanamycin nucleotidyltransferase (KNTase), N-terminal domain
17	d1jb0l			14.5	35	Fold: Photosystem I reaction center subunit XI, Psal Superfamily: Photosystem I reaction center subunit XI, Psal Family: Photosystem I reaction center subunit XI, Psal
18	c2k9iB			14.3	14	PDB header: dna binding protein Chain: B: PDB Molecule: plasmid prn1, complete sequence; PDBTitle: nmr structure of plasmid copy control protein orf56 from2 sulfolobus islandicus
19	c2zfdB			12.6	24	PDB header: signalling protein/transferase Chain: B: PDB Molecule: putative uncharacterized protein t2015_90; PDBTitle: the crystal structure of plant specific calcium binding protein atcb122 in complex with the regulatory domain of atcipk14
20	c2k3qA			11.6	22	PDB header: structural protein Chain: A: PDB Molecule: tusp1; PDBTitle: solution structure of the n-terminal domain (tusp1-n) of the2 egg case silk from nephila antipodiana
21	c2ddhA		not modelled	11.2	38	PDB header: oxidoreductase Chain: A: PDB Molecule: acyl-coa oxidase; PDBTitle: crystal structure of acyl-coa oxidase complexed with 3- oh-dodecanoate
22	d1h72c1		not modelled	11.2	27	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: GHMP Kinase, N-terminal domain
23	c3lr6A		not modelled	10.9	33	PDB header: structural protein Chain: A: PDB Molecule: major ampullate spidroin 1; PDBTitle: self-assembly of spider silk proteins is controlled by a ph-sensitive2 relay
24	d1gg2g		not modelled	10.5	25	Fold: Non-globular all-alpha subunits of globular proteins Superfamily: Transducin (heterotrimeric G protein), gamma chain Family: Transducin (heterotrimeric G protein), gamma chain
25	d1ylqa1		not modelled	10.4	28	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
26	c2fonA		not modelled	10.2	25	PDB header: oxidoreductase Chain: A: PDB Molecule: peroxisomal acyl-coa oxidase 1a; PDBTitle: x-ray crystal structure of leacx1, an acyl-coa oxidase from2 lycopersicon esculentum (tomato)
27	c1u9pA		not modelled	10.2	17	PDB header: unknown function Chain: A: PDB Molecule: parc; PDBTitle: permuted single-chain arc
28	c1qoyA		not modelled	10.1	10	PDB header: toxin Chain: A: PDB Molecule: hemolysin e; PDBTitle: e.coli hemolysin e (hlye, clya, shea)
						PDB header: transferase

29	c3mwdA	Alignment	not modelled	10.0	31	Chain: A: PDB Molecule: atp-citrate synthase; PDBTitle: truncated human atp-citrate lyase with citrate bound
30	c1k97A	Alignment	not modelled	10.0	12	PDB header: ligase Chain: A: PDB Molecule: argininosuccinate synthase; PDBTitle: crystal structure of e. coli argininosuccinate synthetase in complex2 with aspartate and citrulline
31	d1k61a	Alignment	not modelled	9.8	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
32	d1b65a	Alignment	not modelled	9.4	17	Fold: DmpA/ArgJ-like Superfamily: DmpA/ArgJ-like Family: DmpA-like
33	d1wota	Alignment	not modelled	9.3	24	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
34	d1omwg	Alignment	not modelled	9.2	25	Fold: Non-globular all-alpha subunits of globular proteins Superfamily: Transducin (heterotrimeric G protein), gamma chain Family: Transducin (heterotrimeric G protein), gamma chain
35	c2fgyA	Alignment	not modelled	9.0	17	PDB header: lyase Chain: A: PDB Molecule: carboxysome shell polypeptide; PDBTitle: beta carbonic anhydrase from the carboxysomal shell of2 halothiobacillus neapolitanus (csosca)
36	d1j20a1	Alignment	not modelled	8.8	14	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
37	d1ee8a1	Alignment	not modelled	8.8	13	Fold: S13-like H2TH domain Superfamily: S13-like H2TH domain Family: Middle domain of MutM-like DNA repair proteins
38	c1uf2A	Alignment	not modelled	8.7	43	PDB header: virus Chain: A: PDB Molecule: core protein p3; PDBTitle: the atomic structure of rice dwarf virus (rdv)
39	d1uf2a	Alignment	not modelled	8.7	43	Fold: Reovirus inner layer core protein p3 Superfamily: Reovirus inner layer core protein p3 Family: Phytoreovirus core
40	d1xhmb1	Alignment	not modelled	8.7	27	Fold: Non-globular all-alpha subunits of globular proteins Superfamily: Transducin (heterotrimeric G protein), gamma chain Family: Transducin (heterotrimeric G protein), gamma chain
41	c1xhmB	Alignment	not modelled	8.6	27	PDB header: signaling protein Chain: B: PDB Molecule: guanine nucleotide-binding protein g(i)/g(s) PDBTitle: the crystal structure of a biologically active peptide2 (sigk) bound to a g protein beta:gamma heterodimer
42	d1ncfb3	Alignment	not modelled	8.6	40	Fold: TNF receptor-like Superfamily: TNF receptor-like Family: TNF receptor-like
43	c3ibqA	Alignment	not modelled	8.6	30	PDB header: transferase Chain: A: PDB Molecule: pyridoxal kinase; PDBTitle: crystal structure of pyridoxal kinase from lactobacillus2 plantarum in complex with atp
44	d1gotg	Alignment	not modelled	8.5	8	Fold: Non-globular all-alpha subunits of globular proteins Superfamily: Transducin (heterotrimeric G protein), gamma chain Family: Transducin (heterotrimeric G protein), gamma chain
45	d1rypa	Alignment	not modelled	8.3	7	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Proteasome subunits
46	c2w4eA	Alignment	not modelled	8.3	23	PDB header: hydrolase Chain: A: PDB Molecule: mutt/nudix family protein; PDBTitle: structure of an n-terminally truncated nudix hydrolase2 dr2204 from deinococcus radiodurans
47	d1w32a	Alignment	not modelled	8.2	14	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
48	d1fi6a	Alignment	not modelled	8.0	20	Fold: EF Hand-like Superfamily: EF-hand Family: Eps15 homology domain (EH domain)
49	c2crnA	Alignment	not modelled	8.0	16	PDB header: immune system Chain: A: PDB Molecule: ubash3a protein; PDBTitle: solution structure of the uba domain of human ubash3a2 protein
50	d1tbge	Alignment	not modelled	7.9	8	Fold: Non-globular all-alpha subunits of globular proteins Superfamily: Transducin (heterotrimeric G protein), gamma chain Family: Transducin (heterotrimeric G protein), gamma chain
51	d1ng7a	Alignment	not modelled	7.9	27	Fold: Soluble domain of poliovirus core protein 3a Superfamily: Soluble domain of poliovirus core protein 3a Family: Soluble domain of poliovirus core protein 3a
52	c2dagA	Alignment	not modelled	7.8	12	PDB header: hydrolase Chain: A: PDB Molecule: ubiquitin carboxyl-terminal hydrolase 5; PDBTitle: solution structure of the first uba domain in the human2 ubiquitin specific protease 5 (isopeptidase 5)
53	d1n93x	Alignment	not modelled	7.8	24	Fold: P40 nucleoprotein Superfamily: P40 nucleoprotein Family: P40 nucleoprotein
54	c1n93X	Alignment	not modelled	7.8	24	PDB header: viral protein Chain: X: PDB Molecule: p40 nucleoprotein; PDBTitle: crystal structure of the borna disease virus nucleoprotein
55	c1kh2D	Alignment	not modelled	7.6	15	PDB header: ligase Chain: D: PDB Molecule: argininosuccinate synthetase; PDBTitle: crystal structure of thermus thermophilus hb82 argininosuccinate synthetase in complex with atp

56	d1h0ha2		Alignment	not modelled	7.5	23	Fold: Formate dehydrogenase/DMSO reductase, domains 1-3 Superfamily: Formate dehydrogenase/DMSO reductase, domains 1-3 Family: Formate dehydrogenase/DMSO reductase, domains 1-3
57	d1x2na1		Alignment	not modelled	7.5	9	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
58	c1w07A		Alignment	not modelled	7.4	31	PDB header: oxidoreductase Chain: A: PDB Molecule: acyl-coa oxidase; PDBTitle: arabidopsis thaliana acyl-coa oxidase 1
59	d1k47a1		Alignment	not modelled	7.4	25	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: GHMP Kinase, N-terminal domain
60	d2i7na2		Alignment	not modelled	7.1	31	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Fumble-like
61	c3a24A		Alignment	not modelled	7.1	8	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: crystal structure of bt1871 retaining glycosidase
62	d2raqa1		Alignment	not modelled	7.1	11	Fold: Ferredoxin-like Superfamily: MTH889-like Family: MTH889-like
63	c2iifA		Alignment	not modelled	7.1	14	PDB header: recombination/dna Chain: A: PDB Molecule: integration host factor; PDBTitle: single chain integration host factor mutant protein (schif2-2 k45ae) in complex with dna
64	c2x3dC		Alignment	not modelled	7.0	16	PDB header: unknown function Chain: C: PDB Molecule: sso6206; PDBTitle: crystal structure of sso6206 from sulfolobus solfataricus p2
65	d1fh9a		Alignment	not modelled	6.9	10	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
66	c3iz5w		Alignment	not modelled	6.9	40	PDB header: ribosome Chain: W: PDB Molecule: 60s ribosomal protein l22 (l22e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
67	c3l0zC		Alignment	not modelled	6.7	13	PDB header: transferase Chain: C: PDB Molecule: putative nicotinate-nucleotide-dimethylbenzimidazole PDBTitle: crystal structure of a putative nicotinate-nucleotide-2 dimethylbenzimidazole phosphoribosyltransferase from3 methanocaldococcus jannaschii dsm 2661
68	c3noyA		Alignment	not modelled	6.6	42	PDB header: oxidoreductase Chain: A: PDB Molecule: 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase; PDBTitle: crystal structure of ispg (gcpe)
69	c2gefA		Alignment	not modelled	6.4	50	PDB header: hydrolase Chain: A: PDB Molecule: protease vp4; PDBTitle: crystal structure of a novel viral protease with a2 serine/lysine catalytic dyad mechanism
70	d2r5yb1		Alignment	not modelled	6.4	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
71	c1p5jA		Alignment	not modelled	6.3	19	PDB header: lyase Chain: A: PDB Molecule: l-serine dehydratase; PDBTitle: crystal structure analysis of human serine dehydratase
72	d1p5ja		Alignment	not modelled	6.3	19	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
73	c2jyaA		Alignment	not modelled	6.3	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1810; PDBTitle: nmr solution structure of protein atu1810 from agrobacterium tumefaciens. northeast structural genomics consortium target atr23,3 ontario centre for structural proteomics target atc1776
74	d1j6ua3		Alignment	not modelled	6.3	33	Fold: Ribokinase-like Superfamily: MurD-like peptide ligases, catalytic domain Family: MurCDEF
75	d1r85a		Alignment	not modelled	6.2	23	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
76	d1w85i		Alignment	not modelled	6.2	22	Fold: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Superfamily: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Family: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex
77	d1yrnb		Alignment	not modelled	6.2	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
78	c2jugB		Alignment	not modelled	6.2	33	PDB header: biosynthetic protein Chain: B: PDB Molecule: tubc protein; PDBTitle: multienzyme docking in hybrid megasynthetases
79	c3sz8D		Alignment	not modelled	6.2	10	PDB header: transferase Chain: D: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase 2; PDBTitle: crystal structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 burkholderia pseudomallei
80	c2wscl		Alignment	not modelled	6.2	24	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem i reaction center subunit xi,

						PDBTitle: improved model of plant photosystem i
81	d1exta3	Alignment	not modelled	6.2	40	Fold: TNF receptor-like Superfamily: TNF receptor-like Family: TNF receptor-like
82	c2i7pA	Alignment	not modelled	6.1	31	PDB header: transferase Chain: A: PDB Molecule: pantothenate kinase 3; PDBTitle: crystal structure of human pank3 in complex with accoa
83	c2f5xC	Alignment	not modelled	6.1	20	PDB header: transport protein Chain: C: PDB Molecule: bugd; PDBTitle: structure of periplasmic binding protein bugd
84	c2y8sE	Alignment	not modelled	6.1	63	PDB header: membrane protein Chain: E: PDB Molecule: rhoptry neck protein 2; PDBTitle: co-structure of an ama1 mutant (y230a) with a surface2 exposed region of ron2 from toxoplasma gondii
85	c2cooA	Alignment	not modelled	6.0	11	PDB header: transferase Chain: A: PDB Molecule: lipoamide acyltransferase component of branched- PDBTitle: solution structure of the e3_binding domain of2 dihydrolipoamide branched chaintransacylase
86	c2iirL	Alignment	not modelled	6.0	12	PDB header: transferase Chain: J: PDB Molecule: acetate kinase; PDBTitle: acetate kinase from a hyperthermophile thermotoga maritima
87	d1lxna	Alignment	not modelled	5.9	24	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
88	c3no9C	Alignment	not modelled	5.9	14	PDB header: lyase Chain: C: PDB Molecule: fumarate hydratase class ii; PDBTitle: crystal structure of apo fumarate hydratase from mycobacterium2 tuberculosis
89	c2Ik2A	Alignment	not modelled	5.9	17	PDB header: transcription Chain: A: PDB Molecule: homeobox protein tgif1; PDBTitle: solution nmr structure of homeobox domain (171-248) of human homeobox2 protein tgif1, northeast structural genomics consortium target3 hr4411b
90	d1huua	Alignment	not modelled	5.8	16	Fold: IHF-like DNA-binding proteins Superfamily: IHF-like DNA-binding proteins Family: Prokaryotic DNA-bending protein
91	c2w1oA	Alignment	not modelled	5.8	25	PDB header: translation Chain: A: PDB Molecule: 60s acidic ribosomal protein p2; PDBTitle: nmr structure of dimerization domain of human ribosomal2 protein p2
92	c3ugsB	Alignment	not modelled	5.7	18	PDB header: transferase Chain: B: PDB Molecule: undecaprenyl pyrophosphate synthase; PDBTitle: crystal structure of a probable undecaprenyl diphosphate synthase2 (upps) from campylobacter jejuni
93	d2sic1	Alignment	not modelled	5.7	63	Fold: Subtilisin inhibitor Superfamily: Subtilisin inhibitor Family: Subtilisin inhibitor
94	d1pwha	Alignment	not modelled	5.6	20	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
95	d2nrha1	Alignment	not modelled	5.6	15	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: CoA-X-like
96	d1pvla	Alignment	not modelled	5.6	18	Fold: Leukocidin-like Superfamily: Leukocidin-like Family: Leukocidin (pore-forming toxin)
97	d2gkea2	Alignment	not modelled	5.5	23	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: Diaminopimelate epimerase
98	c1p4eB	Alignment	not modelled	5.5	33	PDB header: dna binding protein/recombination/dna Chain: B: PDB Molecule: recombinase flp protein; PDBTitle: flpe w330f mutant-dna holliday junction complex
99	c3beyC	Alignment	not modelled	5.5	20	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: conserved protein o27018; PDBTitle: crystal structure of the protein o27018 from methanobacterium2 thermoautotrophicum. northeast structural genomics consortium target3 tt217