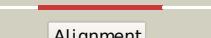
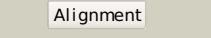
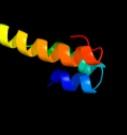
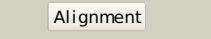
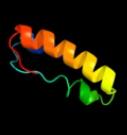
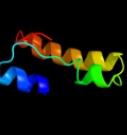
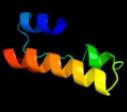
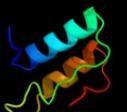
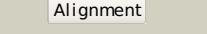
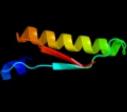
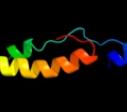
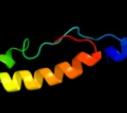
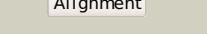


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P52140
Date	Thu Jan 5 12:05:45 GMT 2012
Unique Job ID	3554febfc1af1d13

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2qlcC_			100.0	37	PDB header: dna binding protein Chain: C; PDB Molecule: dna repair protein radc homolog; PDBTitle: the crystal structure of dna repair protein radc from chlorobium2 tepidum tls
2	d1oi0a_			96.9	19	Fold: Cytidine deaminase-like Superfamily: JAB1/MPN domain Family: JAB1/MPN domain
3	c2kcqA_			95.5	14	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: mov34/mpn/pad-1 family; PDBTitle: solution structure of protein sru_2040 from salinibacter2 ruber (strain dsm 13855) . northeast structural genomics3 consortium target srr106
4	c2kksA_			95.1	20	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: uncharacterized protein; PDBTitle: solution structure of protein dsy2949 from desulfitobacterium2 hafniense. northeast structural genomics consortium target dhr27
5	c2w6rA_			84.2	13	PDB header: lyase Chain: A; PDB Molecule: imidazole glycerol phosphate synthase subunit PDBTitle: crystal structure of an artificial (ba)8-barrel protein2 designed from identical half barrels
6	c3tdmD_			70.5	10	PDB header: de novo protein Chain: D; PDB Molecule: computationally designed two-fold symmetric tim-barrel PDBTitle: computationally designed tim-barrel protein, halfflr
7	c3g94B_			68.0	18	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'
8	d1gvfa_			66.0	14	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
9	c3c52B_			62.6	14	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
10	c2iswB_			61.8	23	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
11	c2yciX_			60.9	18	PDB header: transferase Chain: X; PDB Molecule: 5-methyltetrahydrofolate corrinoid/iron sulfur protein PDBTitle: methyltransferase native

12	d1rvga_			58.0	27	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
13	d2csual_			51.0	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
14	c3e49A_			50.6	25	PDB header: metal binding protein Chain: A: PDB Molecule: uncharacterized protein duf849 with a tim barrel fold; PDBTitle: crystal structure of a prokaryotic domain of unknown function (duf849)2 with a tim barrel fold (bxe_c0966) from burkholderia xenovorans lb4003 at 1.75 a resolution
15	c3elfA_			45.4	18	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
16	c3pm6B_			43.2	18	PDB header: lyase Chain: B: PDB Molecule: putative fructose-bisphosphate aldolase; PDBTitle: crystal structure of a putative fructose-1,6-biphosphate aldolase from2 coccidioides immitis solved by combined sad mr
17	c3jrkG_			41.2	23	PDB header: lyase Chain: G: PDB Molecule: tagatose 1,6-diphosphate aldolase 2; PDBTitle: a putative tagatose 1,6-diphosphate aldolase from streptococcus2 pyogenes
18	c3qm3C_			38.9	9	PDB header: lyase Chain: C: PDB Molecule: fructose-bisphosphate aldolase; PDBTitle: 1.85 angstrom resolution crystal structure of fructose-bisphosphate2 aldolase (fba) from campylobacter jejuni
19	d1dosa_			38.5	5	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class II FBP aldolase
20	c3lotC_			32.0	23	PDB header: structure genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein of unknown function (np_070038.1) from2 archaeoglobus fulgidus at 1.89 a resolution
21	d1hl9a2_		not modelled	31.3	19	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Putative alpha-L-fucosidase, catalytic domain
22	c3c6cA_		not modelled	30.3	20	PDB header: hydrolase Chain: A: PDB Molecule: 3-keto-5-aminohexanoate cleavage enzyme; PDBTitle: crystal structure of a putative 3-keto-5-aminohexanoate cleavage2 enzyme (reut_c6226) from ralstonia eutropha jmp134 at 1.72 a3 resolution
23	d1loxja2_		not modelled	28.6	8	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: PHAT domain
24	c3e02A_		not modelled	24.7	18	PDB header: metal binding protein Chain: A: PDB Molecule: uncharacterized protein duf849; PDBTitle: crystal structure of a duf849 family protein (bxe_c0271) from2 burkholderia xenovorans lb400 at 1.90 a resolution
25	d1je0a_		not modelled	24.3	14	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
26	c3stgA_		not modelled	24.0	9	PDB header: transferase Chain: A: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase; PDBTitle: crystal structure of a58p, del(n59), and loop 7 truncated mutant of 3-2 deoxy-d-manno-octulosonate 8-phosphate synthase (kdo8ps) from3 neisseria meningitidis
27	c3k13A_		not modelled	23.3	15	PDB header: transferase Chain: A: PDB Molecule: 5-methyltetrahydrofolate-homocysteine methyltransferase; PDBTitle: structure of the pterin-binding domain metr of 5-2 methyltetrahydrofolate-homocysteine methyltransferase from3

			bacteroides theta iotaomicron
28	c2xrfA	Alignment	not modelled
22.6	11	PDB header: transferase Chain: A: PDB Molecule: uridine phosphorylase 2; PDBTitle: crystal structure of human uridine phosphorylase 2	
29	d1ybfa	Alignment	not modelled
22.1	11	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases	
30	d1o98a1	Alignment	not modelled
20.7	18	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	
31	c1jvnB	Alignment	not modelled
20.6	16	PDB header: transferase Chain: B: PDB Molecule: bifunctional histidine biosynthesis protein hishf; PDBTitle: crystal structure of imidazole glycerol phosphate synthase: a tunnel2 through a (beta/alpha)8 barrel joins two active sites	
32	c3t18D	Alignment	not modelled
20.4	16	PDB header: transferase Chain: D: PDB Molecule: aminotransferase class i and ii; PDBTitle: crystal structure of aminotransferase from anaerococcus prevotii dsm2 20548.	
33	d2isy2a	Alignment	not modelled
20.4	25	Fold: Iron-dependent repressor protein, dimerization domain Superfamily: Iron-dependent repressor protein, dimerization domain Family: Iron-dependent repressor protein, dimerization domain	
34	c3op1A	Alignment	not modelled
20.1	13	PDB header: transferase Chain: A: PDB Molecule: macrolide-efflux protein; PDBTitle: crystal structure of macrolide-efflux protein sp_1110 from streptococcus pneumoniae	
35	d1f6ya	Alignment	not modelled
17.4	22	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Methyltetrahydrofolate-utilizing methyltransferases	
36	d1kfta	Alignment	not modelled
17.1	14	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Excinuclease UvrC C-terminal domain	
37	c1kftA	Alignment	not modelled
17.1	14	PDB header: dna binding protein Chain: A: PDB Molecule: excinuclease abc subunit c; PDBTitle: solution structure of the c-terminal domain of uvrC from e-2 coli	
38	d1ywxa1	Alignment	not modelled
15.6	22	Fold: Ribosomal proteins S24e, L23 and L15e Superfamily: Ribosomal proteins S24e, L23 and L15e Family: Ribosomal protein S24e	
39	c1k97A	Alignment	not modelled
15.0	17	PDB header: ligase Chain: A: PDB Molecule: argininosuccinate synthase; PDBTitle: crystal structure of e. coli argininosuccinate synthetase in complex2 with aspartate and citrulline	
40	d1ka9f	Alignment	not modelled
14.7	15	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes	
41	d3bzka5	Alignment	not modelled
14.7	13	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Tex RuvX-like domain-like	
42	d1h5ya	Alignment	not modelled
14.2	12	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes	
43	c2y85D	Alignment	not modelled
13.3	10	PDB header: isomerase Chain: D: PDB Molecule: phosphoribosyl isomerase a; PDBTitle: crystal structure of mycobacterium tuberculosis phosphoribosyl2 isomerase with bound rcdrp	
44	d1k9sa	Alignment	not modelled
13.3	17	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases	
45	c2y7eA	Alignment	not modelled
13.0	16	PDB header: lyase Chain: A: PDB Molecule: 3-keto-5-amino hexanoate cleavage enzyme; PDBTitle: crystal structure of the 3-keto-5-amino hexanoate cleavage enzyme2 (kce) from candidatus cloacamonas acidimovoornans (tetragonal form)	
46	c3chvA	Alignment	not modelled
12.8	16	PDB header: metal binding protein Chain: A: PDB Molecule: prokaryotic domain of unknown function (duf849) with a tim PDBTitle: crystal structure of a prokaryotic domain of unknown function (duf849)2 member (spoa0042) from silicibacter pomeroyi dss-3 at 1.45 a3 resolution	
47	c3no5C	Alignment	not modelled
12.7	13	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a pfam duf849 domain containing protein2 (reut_a1631) from ralstonia eutropha jmp134 at 1.90 a resolution	
48	c3gndC	Alignment	not modelled
12.5	20	PDB header: lyase Chain: C: PDB Molecule: aldolase lsrf; PDBTitle: crystal structure of e. coli lsrf in complex with ribulose-5-phosphate	
49	c2bdqA	Alignment	not modelled
12.5	19	PDB header: metal transport Chain: A: PDB Molecule: copper homeostasis protein cutc; PDBTitle: crystal structure of the putative copper homeostasis2 protein cutc from streptococcus agalactiae, northeast3 structural genomics target sar15.	
50	d1xn9a	Alignment	not modelled
12.2	20	Fold: Ribosomal proteins S24e, L23 and L15e Superfamily: Ribosomal proteins S24e, L23 and L15e Family: Ribosomal protein S24e	
51	d1cuka2	Alignment	not modelled
12.2	9	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain	

52	d1e0fi		Alignment	not modelled	12.1	56	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Leech antihemostatic proteins Family: Hirudin-like
53	c1e0fl		Alignment	not modelled	12.1	56	PDB header: coagulation/crystal structure/heparin-b Chain: I: PDB Molecule: haemadin; PDBTitle: crystal structure of the human alpha-thrombin-haemadin2 complex: an exosite ii-binding inhibitor
54	c3av0A		Alignment	not modelled	11.6	25	PDB header: recombination Chain: A: PDB Molecule: dna double-strand break repair protein mre11; PDBTitle: crystal structure of mre11-rad50 bound to atp s
55	d2i1qa1		Alignment	not modelled	10.9	4	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
56	c1e0fl		Alignment	not modelled	10.9	56	PDB header: coagulation/crystal structure/heparin-b Chain: J: PDB Molecule: haemadin; PDBTitle: crystal structure of the human alpha-thrombin-haemadin2 complex: an exosite ii-binding inhibitor
57	c2csdB		Alignment	not modelled	10.8	9	PDB header: isomerase Chain: B: PDB Molecule: topoisomerase v; PDBTitle: crystal structure of topoisomerase v (61 kda fragment)
58	d1yj5a1		Alignment	not modelled	10.7	9	Fold: HAD-like Superfamily: HAD-like Family: phosphatase domain of polynucleotide kinase
59	d1ii7a		Alignment	not modelled	10.6	21	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: DNA double-strand break repair nuclease
60	d2a1jb1		Alignment	not modelled	9.7	17	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
61	d1xi3a		Alignment	not modelled	9.6	23	Fold: TIM beta/alpha-barrel Superfamily: Thiamin phosphate synthase Family: Thiamin phosphate synthase
62	c1o98A		Alignment	not modelled	9.6	19	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent PDBTitle: 1.4a crystal structure of phosphoglycerate mutase from2 bacillus stearothermophilus complexed with3 2-phosphoglycerate
63	d1g3wa2		Alignment	not modelled	9.5	25	Fold: Iron-dependent repressor protein, dimerization domain Superfamily: Iron-dependent repressor protein, dimerization domain Family: Iron-dependent repressor protein, dimerization domain
64	d1ixra1		Alignment	not modelled	9.5	5	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain
65	c3eypB		Alignment	not modelled	9.5	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative alpha-l-fucosidase; PDBTitle: crystal structure of putative alpha-l-fucosidase from bacteroides2 thetaiotaomicron
66	c1t3tA		Alignment	not modelled	9.4	67	PDB header: ligase Chain: A: PDB Molecule: phosphoribosylformylglycinamide synthase; PDBTitle: structure of formylglycinamide synthetase
67	c2wvsD		Alignment	not modelled	9.4	22	PDB header: hydrolase Chain: D: PDB Molecule: alpha-l-fucosidase; PDBTitle: crystal structure of an alpha-l-fucosidase gh29 trapped2 covalent intermediate from bacteroides thetaiotaomicron in3 complex with 2-fluoro-fucosyl fluoride using an e288q4 mutant
68	d1w5da1		Alignment	not modelled	9.2	18	Fold: beta-lactamase/transpeptidase-like Superfamily: beta-lactamase/transpeptidase-like Family: Dac-like
69	c3iz5w		Alignment	not modelled	9.2	50	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
70	c1hpA		Alignment	not modelled	9.1	19	PDB header: dna recombination Chain: A: PDB Molecule: ruva; PDBTitle: holliday junction binding protein ruva from e. coli
71	c1e0fk		Alignment	not modelled	9.0	56	PDB header: coagulation/crystal structure/heparin-b Chain: K: PDB Molecule: haemadin; PDBTitle: crystal structure of the human alpha-thrombin-haemadin2 complex: an exosite ii-binding inhibitor
72	d1x2ia1		Alignment	not modelled	8.9	8	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
73	c2j8qb		Alignment	not modelled	8.9	19	PDB header: nuclear protein Chain: B: PDB Molecule: cleavage and polyadenylation specificity factor 5; PDBTitle: crystal structure of human cleavage and polyadenylation2 specificity factor 5 (cpsf5) in complex with a sulphate3 ion.
74	c2x0kB		Alignment	not modelled	8.9	13	PDB header: transferase Chain: B: PDB Molecule: riboflavin biosynthesis protein ribf; PDBTitle: crystal structure of modular fad synthetase from2 corynebacterium ammoniagenes
75	d1bvs2		Alignment	not modelled	8.9	5	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain
76	d1t3ta4		Alignment	not modelled	8.9	67	Fold: Bacillus chorismate mutase-like Superfamily: PurM N-terminal domain-like Family: PurM N-terminal domain-like
77	d2ex2a1		Alignment	not modelled	8.2	22	Fold: beta-lactamase/transpeptidase-like Superfamily: beta-lactamase/transpeptidase-like Family: Dac-like

78	c3auzA	Alignment	not modelled	7.9	22	PDB header: recombination Chain: A: PDB Molecule: dna double-strand break repair protein mre11; PDBTitle: crystal structure of mre11 with manganese
79	d1szpa1	Alignment	not modelled	7.9	4	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
80	d1szpb1	Alignment	not modelled	7.9	0	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
81	d2qj2a3	Alignment	not modelled	7.7	15	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: ERF1/Dom34 C-terminal domain-like
82	d1rv9a	Alignment	not modelled	7.6	16	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
83	c3zqoK	Alignment	not modelled	7.5	15	PDB header: dna-binding protein Chain: K: PDB Molecule: terminase small subunit; PDBTitle: crystal structure of the small terminase oligomerization2 core domain from a spp1-like bacteriophage (crystal form 3)
84	d1x6va2	Alignment	not modelled	7.3	27	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: ATP sulfurylase catalytic domain
85	c2h5xA	Alignment	not modelled	7.2	5	PDB header: dna binding protein Chain: A: PDB Molecule: holliday junction atp-dependent dna helicase ruva; PDBTitle: ruva from mycobacterium tuberculosis
86	c2it0A	Alignment	not modelled	7.1	25	PDB header: transcription/dna Chain: A: PDB Molecule: iron-dependent repressor ider; PDBTitle: crystal structure of a two-domain ider-dna complex crystal2 form ii
87	c3a3eB	Alignment	not modelled	7.1	16	PDB header: hydrolase Chain: B: PDB Molecule: penicillin-binding protein 4; PDBTitle: crystal structure of penicillin binding protein 4 (dabc)2 from haemophilus influenzae, complexed with novel beta-3 lactam (cmv)
88	d1rw0a	Alignment	not modelled	7.1	26	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: Yfi H-like
89	c2w1oA	Alignment	not modelled	7.1	33	PDB header: translation Chain: A: PDB Molecule: 60s acidic ribosomal protein p2; PDBTitle: nmr structure of dimerization domain of human ribosomal2 protein p2
90	c3f0hA	Alignment	not modelled	6.8	9	PDB header: transferase Chain: A: PDB Molecule: aminotransferase; PDBTitle: crystal structure of aminotransferase (rer070207000802) from2 eubacterium rectale at 1.70 a resolution
91	d1wmhb	Alignment	not modelled	6.8	22	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: PB1 domain
92	d1pzna1	Alignment	not modelled	6.8	4	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
93	c3izbU	Alignment	not modelled	6.8	9	PDB header: ribosome Chain: U: PDB Molecule: 40s ribosomal protein s24; PDBTitle: localization of the small subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
94	d1nmpa	Alignment	not modelled	6.7	16	Fold: NIF3 (NGG1p interacting factor 3)-like Superfamily: NIF3 (NGG1p interacting factor 3)-like Family: NIF3 (NGG1p interacting factor 3)-like
95	c3iz6U	Alignment	not modelled	6.7	36	PDB header: ribosome Chain: U: PDB Molecule: 40s ribosomal protein s24 (s24e); PDBTitle: localization of the small subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
96	c3eufC	Alignment	not modelled	6.7	11	PDB header: transferase Chain: C: PDB Molecule: uridine phosphorylase 1; PDBTitle: crystal structure of ba2-bound human uridine phosphorylase 1
97	c1oxjA	Alignment	not modelled	6.6	8	PDB header: rna binding protein Chain: A: PDB Molecule: rna-binding protein smaug; PDBTitle: crystal structure of the smaug rna binding domain
98	d1dfa	Alignment	not modelled	6.4	5	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
99	d3etja2	Alignment	not modelled	6.4	28	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like