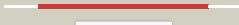
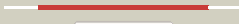
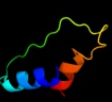
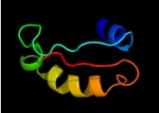
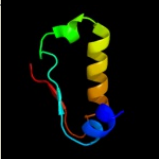
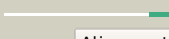
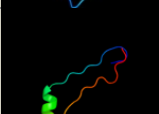
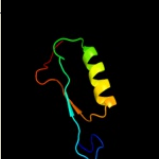
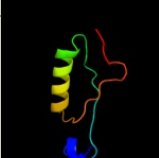
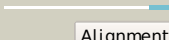
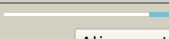
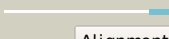
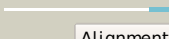
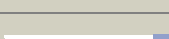


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P0AFR4
Date	Thu Jan 5 11:27:03 GMT 2012
Unique Job ID	5f2bd92b773bd97a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1k7ja_	 Alignment		100.0	97	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: YrdC-like
2	c2eqaA_	 Alignment		100.0	28	PDB header: rna binding protein Chain: A: PDB Molecule: hypothetical protein st1526; PDBTitle: crystal structure of the hypothetical sua5 protein from2 sulfolobus tokodaii
3	d1jcua_	 Alignment		100.0	30	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: YrdC-like
4	d1hrua_	 Alignment		100.0	23	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: YrdC-like
5	c3l7vA_	 Alignment		100.0	23	PDB header: transcription Chain: A: PDB Molecule: putative uncharacterized protein smu.1377c; PDBTitle: crystal structure of a hypothetical protein smu.1377c from2 streptococcus mutans ua159
6	c3tsuA_	 Alignment		100.0	18	PDB header: transferase Chain: A: PDB Molecule: transcriptional regulatory protein; PDBTitle: crystal structure of e. coli hypf with amp-pnp and carbamoyl phosphate
7	d1t5la1	 Alignment		81.0	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
8	c2frxD_	 Alignment		52.7	28	PDB header: transferase Chain: D: PDB Molecule: hypothetical protein yebu; PDBTitle: crystal structure of yebu, a m5c rna methyltransferase from e.coli
9	d1d4oa_	 Alignment		48.9	17	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Transhydrogenase domain III (dIII)
10	c1pt9B_	 Alignment		48.5	17	PDB header: oxidoreductase Chain: B: PDB Molecule: nad(p) transhydrogenase, mitochondrial; PDBTitle: crystal structure analysis of the diii component of transhydrogenase2 with a thio-nicotinamide nucleotide analogue
11	c3m4xA_	 Alignment		48.0	21	PDB header: transferase Chain: A: PDB Molecule: nol1/nop2/sun family protein; PDBTitle: structure of a ribosomal methyltransferase

12	c3m6wA_	 Alignment		43.3	31	PDB header: transferase Chain: A: PDB Molecule: rrna methylase; PDBTitle: multi-site-specific 16s rrna methyltransferase rsmf from thermus2 thermophilus in space group p21212 in complex with s-adenosyl-l-3 methionine
13	c2bruC_	 Alignment		42.8	20	PDB header: oxidoreductase Chain: C: PDB Molecule: nad(p) transhydrogenase subunit beta; PDBTitle: complex of the domain i and domain iii of escherichia coli2 transhydrogenase
14	d1pnoa_	 Alignment		41.7	17	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Transhydrogenase domain III (dIII)
15	c2oemA_	 Alignment		41.5	18	PDB header: isomerase Chain: A: PDB Molecule: 2,3-diketo-5-methylthiopentyl-1-phosphate enolase; PDBTitle: crystal structure of a rubisco-like protein from geobacillus2 kaustophilus liganded with mg2+ and 2,3-diketohexane 1-phosphate
16	d1hq0a_	 Alignment		40.9	26	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: Type 1 cytotoxic necrotizing factor, catalytic domain
17	dlixka_	 Alignment		37.1	28	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: NOL1/NOP2/sun
18	c3fk4A_	 Alignment		36.3	17	PDB header: isomerase Chain: A: PDB Molecule: rubisco-like protein; PDBTitle: crystal structure of rubisco-like protein from bacillus2 cereus atcc 14579
19	c3p3dA_	 Alignment		35.2	32	PDB header: nuclear protein Chain: A: PDB Molecule: nucleoporin 53; PDBTitle: crystal structure of the nup53 rrm domain from pichia guilliermondii
20	c3nwrA_	 Alignment		33.8	22	PDB header: lyase Chain: A: PDB Molecule: a rubisco-like protein; PDBTitle: crystal structure of a rubisco-like protein from burkholderia fungorum
21	d1ykwa1	 Alignment	not modelled	32.9	15	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
22	d2d69a1	 Alignment	not modelled	32.6	15	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
23	c2zviB_	 Alignment	not modelled	32.3	19	PDB header: isomerase Chain: B: PDB Molecule: 2,3-diketo-5-methylthiopentyl-1-phosphate PDBTitle: crystal structure of 2,3-diketo-5-methylthiopentyl-1-2 phosphate enolase from bacillus subtilis Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: NOL1/NOP2/sun
24	d1sqga2	 Alignment	not modelled	32.0	23	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: NOL1/NOP2/sun
25	d1rbla1	 Alignment	not modelled	31.3	19	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
26	d1bxna1	 Alignment	not modelled	30.5	15	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
27	d1ej7l1	 Alignment	not modelled	29.6	15	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
28	c2qj8B_	 Alignment	not modelled	29.1	22	PDB header: hydrolase Chain: B: PDB Molecule: mlr6093 protein; PDBTitle: crystal structure of an aspartoacylase family protein (mlr6093) from2 mesorhizobium loti maff303099 at 2.00 a resolution
		 Alignment				PDB header: biosynthetic protein

29	c2qs0A_	Alignment	not modelled	27.5	9	Chain: A: PDB Molecule: quinolinate synthetase a; PDBTitle: quinolinate synthase from pyrococcus furiosus
30	c3qfwB_	Alignment	not modelled	27.1	17	PDB header: lyase Chain: B: PDB Molecule: ribulose-1,5-bisphosphate carboxylase/oxygenase large PDBTitle: crystal structure of rubisco-like protein from rhodospseudomonas2 palustris
31	c3mioA_	Alignment	not modelled	27.0	10	PDB header: lyase Chain: A: PDB Molecule: 3,4-dihydroxy-2-butanone 4-phosphate synthase; PDBTitle: crystal structure of 3,4-dihydroxy-2-butanone 4-phosphate synthase2 domain from mycobacterium tuberculosis at ph 6.00
32	d1gk8a1	Alignment	not modelled	26.9	14	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
33	c2yxlA_	Alignment	not modelled	25.5	28	PDB header: transferase Chain: A: PDB Molecule: 450aa long hypothetical fmu protein; PDBTitle: crystal structure of ph0851
34	c1sqgA_	Alignment	not modelled	25.5	23	PDB header: transferase Chain: A: PDB Molecule: sun protein; PDBTitle: the crystal structure of the e. coli fmu apoenzyme at 1.652 a resolution
35	d1svda1	Alignment	not modelled	25.4	13	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
36	c3hjhA_	Alignment	not modelled	25.3	11	PDB header: hydrolase Chain: A: PDB Molecule: transcription-repair-coupling factor; PDBTitle: a rigid n-terminal clamp restrains the motor domains of the bacterial2 transcription-repair coupling factor
37	c3a4tA_	Alignment	not modelled	23.7	28	PDB header: transferase Chain: A: PDB Molecule: putative methyltransferase mj0026; PDBTitle: crystal structure of atm4 from m.jannaschii with sinefungin
38	c3axtA_	Alignment	not modelled	23.0	13	PDB header: transferase Chain: A: PDB Molecule: probable n(2),n(2)-dimethylguanosine trna methyltransferase PDBTitle: complex structure of trna methyltransferase trm1 from aquifex aeolicus2 with s-adenosyl-l-methionine
39	c1solA_	Alignment	not modelled	22.9	7	PDB header: actin-binding protein Chain: A: PDB Molecule: gelsolin (150-169); PDBTitle: a pip2 and f-actin-binding site of gelsolin, residue 150-2169 (nmr, averaged structure)
40	d1c4oa1	Alignment	not modelled	22.8	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
41	d1geha1	Alignment	not modelled	22.4	17	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
42	c1rldB_	Alignment	not modelled	21.2	15	PDB header: lyase(carbon-carbon) Chain: B: PDB Molecule: ribulose 1,5 bisphosphate carboxylase/oxygenase (large PDBTitle: solid-state phase transition in the crystal structure of ribulose 1,5-2 biphosphate carboxylase(/slash)oxygenase
43	d1snna_	Alignment	not modelled	21.2	15	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
44	d2dula1	Alignment	not modelled	21.0	13	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: TRM1-like
45	c2d69B_	Alignment	not modelled	20.5	15	PDB header: lyase Chain: B: PDB Molecule: ribulose bisphosphate carboxylase; PDBTitle: crystal structure of the complex of sulfate ion and octameric2 ribulose-1,5-bisphosphate carboxylase/oxygenase (rubisco) from3 pyrococcus horikoshii ot3 (form-2 crystal)
46	d1r0ua_	Alignment	not modelled	20.1	20	Fold: Lipocalins Superfamily: Lipocalins Family: Hypothetical protein YwiB
47	c2qygC_	Alignment	not modelled	18.7	13	PDB header: unknown function Chain: C: PDB Molecule: ribulose bisphosphate carboxylase-like protein 2; PDBTitle: crystal structure of a rubisco-like protein rlp2 from rhodospseudomonas2 palustris
48	c1rcxH_	Alignment	not modelled	17.6	15	PDB header: lyase (carbon-carbon) Chain: H: PDB Molecule: ribulose bisphosphate carboxylase/oxygenase; PDBTitle: non-activated spinach rubisco in complex with its substrate2 ribulose-1,5-bisphosphate
49	c1telA_	Alignment	not modelled	16.9	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ribulose bisphosphate carboxylase, large subunit; PDBTitle: crystal structure of a rubisco-like protein from chlorobium2 tepidum
50	d1bwva1	Alignment	not modelled	16.9	16	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
51	c2gq1A_	Alignment	not modelled	14.7	22	PDB header: hydrolase Chain: A: PDB Molecule: fructose-1,6-bisphosphatase; PDBTitle: crystal structure of recombinant type i fructose-1,6-bisphosphatase2 from escherichia coli complexed with sulfate ions
52	d8ruca1	Alignment	not modelled	14.6	16	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
						PDB header: lyase Chain: E: PDB Molecule: ribulose-1,5-bisphosphate

53	c1gehE	Alignment	not modelled	14.5	17	carboxylase/oxygenase; PDBTitle: crystal structure of archaeal rubisco (ribulose 1,5-bisphosphate2 carboxylase/oxygenase)
54	c2fhyL	Alignment	not modelled	14.0	12	PDB header: hydrolase Chain: L: PDB Molecule: fructose-1,6-bisphosphatase 1; PDBTitle: structure of human liver fpbase complexed with a novel2 benzoxazole as allosteric inhibitor
55	d2eyqa4	Alignment	not modelled	14.0	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
56	c3n0vD	Alignment	not modelled	12.9	12	PDB header: hydrolase Chain: D: PDB Molecule: formyltetrahydrofolate deformylase; PDBTitle: crystal structure of a formyltetrahydrofolate deformylase (pp_0327)2 from pseudomonas putida kt2440 at 2.25 a resolution
57	c3p04A	Alignment	not modelled	12.6	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
58	d1tksa	Alignment	not modelled	12.0	21	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
59	c3ckkA	Alignment	not modelled	11.6	25	PDB header: transferase Chain: A: PDB Molecule: trna (guanine-n(7)-)-methyltransferase; PDBTitle: crystal structure of human methyltransferase-like protein 1
60	d1nuwa	Alignment	not modelled	11.6	16	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
61	d1k4ia	Alignment	not modelled	11.6	15	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
62	c3louB	Alignment	not modelled	11.5	12	PDB header: hydrolase Chain: B: PDB Molecule: formyltetrahydrofolate deformylase; PDBTitle: crystal structure of formyltetrahydrofolate deformylase (yp_105254.1)2 from burkholderia mallei atcc 23344 at 1.90 a resolution
63	c1kevB	Alignment	not modelled	11.4	7	PDB header: oxidoreductase Chain: B: PDB Molecule: nadp-dependent alcohol dehydrogenase; PDBTitle: structure of nadp-dependent alcohol dehydrogenase
64	d1wdda1	Alignment	not modelled	10.7	16	Fold: TIM beta/alpha-barrel Superfamily: RuBisCo, C-terminal domain Family: RuBisCo, large subunit, C-terminal domain
65	c2ekgB	Alignment	not modelled	10.6	10	PDB header: oxidoreductase Chain: B: PDB Molecule: proline dehydrogenase/delta-1-pyrroline-5-carboxylate PDBTitle: structure of thermus thermophilus proline dehydrogenase inactivated by2 n-propargylglycine
66	d1bhea	Alignment	not modelled	10.4	15	Fold: Single-stranded right-handed beta-helix Superfamily: Pectin lyase-like Family: Galacturonase
67	c2eyqA	Alignment	not modelled	9.9	12	PDB header: hydrolase Chain: A: PDB Molecule: transcription-repair coupling factor; PDBTitle: crystal structure of escherichia coli transcription-repair2 coupling factor
68	c2vduE	Alignment	not modelled	9.9	25	PDB header: transferase Chain: E: PDB Molecule: trna (guanine-n(7)-)-methyltransferase; PDBTitle: structure of trm8-trm82, the yeast trna m7g methylation2 complex
69	d1ftaa	Alignment	not modelled	9.8	12	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
70	c3crw1	Alignment	not modelled	9.3	29	PDB header: hydrolase Chain: 1: PDB Molecule: xpd/rad3 related dna helicase; PDBTitle: "xpd_apo"
71	c1bwvA	Alignment	not modelled	8.9	16	PDB header: lyase Chain: A: PDB Molecule: protein (ribulose bisphosphate carboxylase); PDBTitle: activated ribulose 1,5-bisphosphate carboxylase/oxygenase (rubisco)2 complexed with the reaction intermediate analogue 2-carboxyarabinitol3 1,5-bisphosphate
72	d1d9qa	Alignment	not modelled	8.6	22	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
73	d1duvg1	Alignment	not modelled	8.3	17	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
74	d1h80a	Alignment	not modelled	8.2	18	Fold: Single-stranded right-handed beta-helix Superfamily: Pectin lyase-like Family: iota-carrageenase
75	d1q32a2	Alignment	not modelled	8.2	44	Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Tyrosyl-DNA phosphodiesterase TDP1
76	d2hi6a1	Alignment	not modelled	8.1	15	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: AF0055-like
77	d1g57a	Alignment	not modelled	7.7	12	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
78	d2f06a1	Alignment	not modelled	7.7	17	Fold: Ferredoxin-like Superfamily: ACT-like Family: BT0572-like

79	c3p04B_	Alignment	not modelled	7.6	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
80	d1knza_	Alignment	not modelled	7.5	17	Fold: NSP3 homodimer Superfamily: NSP3 homodimer Family: NSP3 homodimer
81	c2ouiB_	Alignment	not modelled	7.2	8	PDB header: oxidoreductase Chain: B: PDB Molecule: nadp-dependent alcohol dehydrogenase; PDBTitle: d275p mutant of alcohol dehydrogenase from protozoa entamoeba2 histolytica
82	d1spia_	Alignment	not modelled	7.2	24	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
83	d1bk4a_	Alignment	not modelled	7.1	16	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
84	d1yksa2	Alignment	not modelled	7.1	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RNA helicase
85	c2y75F_	Alignment	not modelled	7.1	25	PDB header: transcription Chain: F: PDB Molecule: hth-type transcriptional regulator cymr; PDBTitle: the structure of cymr (yrzc) the global cysteine regulator2 of b. subtilis
86	d1xcfa_	Alignment	not modelled	7.0	11	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Tryptophan biosynthesis enzymes
87	c3d7aB_	Alignment	not modelled	7.0	14	PDB header: unknown function Chain: B: PDB Molecule: upf0201 protein ph1010; PDBTitle: crystal structure of duf54 family protein ph1010 from2 hyperthermophilic archaea pyrococcus horikoshii ot3
88	c1f8fA_	Alignment	not modelled	7.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: benzyl alcohol dehydrogenase; PDBTitle: crystal structure of benzyl alcohol dehydrogenase from acinetobacter2 calcoaceticus
89	d1otha1	Alignment	not modelled	6.9	16	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
90	d1tg7a3	Alignment	not modelled	6.7	18	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: Beta-galactosidase LacA, domains 4 and 5
91	d1jy1a2	Alignment	not modelled	6.6	44	Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Tyrosyl-DNA phosphodiesterase TDP1
92	c1r37B_	Alignment	not modelled	6.4	16	PDB header: oxidoreductase Chain: B: PDB Molecule: nad-dependent alcohol dehydrogenase; PDBTitle: alcohol dehydrogenase from sulfolobus solfataricus2 complexed with nad(h) and 2-ethoxyethanol
93	d1zqla2	Alignment	not modelled	6.3	24	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
94	d1yzha1	Alignment	not modelled	6.2	21	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: TrmB-like
95	d1mvfd_	Alignment	not modelled	6.0	38	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/PemI addiction antidote
96	d2b2na1	Alignment	not modelled	5.9	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
97	d1vlva1	Alignment	not modelled	5.8	23	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
98	c2v34B_	Alignment	not modelled	5.7	16	PDB header: transferase Chain: B: PDB Molecule: 4-diphosphocytidylyl-2c-methyl-d-erythritol kinase; PDBTitle: ispe in complex with cytidine and ligand
99	c3h1tA_	Alignment	not modelled	5.7	44	PDB header: hydrolase Chain: A: PDB Molecule: type i site-specific restriction-modification PDBTitle: the fragment structure of a putative hsdR subunit of a type2 i restriction enzyme from vibrio vulnificus yj016