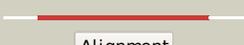
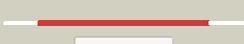
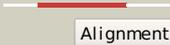
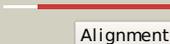
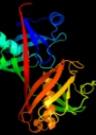
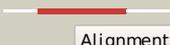
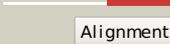
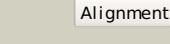


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P37757
Date	Thu Jan 5 11:57:29 GMT 2012
Unique Job ID	846e28bc1a63b25d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1qy9B_	 Alignment		100.0	98	PDB header: unknown function Chain: B: PDB Molecule: hypothetical protein ydde; PDBTitle: crystal structure of e. coli se-met protein ydde
2	c3ednB_	 Alignment		100.0	32	PDB header: biosynthetic protein Chain: B: PDB Molecule: phenazine biosynthesis protein, phzf family; PDBTitle: crystal structure of the bacillus anthracis phenazine2 biosynthesis protein, phzf family
3	c1ym5A_	 Alignment		100.0	23	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical 32.6 kda protein in dap2-slt2 PDBTitle: crystal structure of yhi9, the yeast member of the2 phenazine biosynthesis phzf enzyme superfamily.
4	c1u1wA_	 Alignment		100.0	30	PDB header: isomerase, lyase Chain: A: PDB Molecule: phenazine biosynthesis protein phzf; PDBTitle: structure and function of phenazine-biosynthesis protein phzf from2 pseudomonas fluorescens 2-79
5	c1u0kA_	 Alignment		100.0	25	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: gene product pa4716; PDBTitle: the structure of a predicted epimerase pa4716 from pseudomonas2 aeruginosa
6	d1s7ja_	 Alignment		100.0	31	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
7	c3ekmE_	 Alignment		100.0	16	PDB header: isomerase Chain: E: PDB Molecule: diaminopimelate epimerase, chloroplastic; PDBTitle: crystal structure of diaminopimelate epimerase form2 arabidopsis thaliana in complex with irreversible inhibitor3 dl-azidap
8	c2otnB_	 Alignment		100.0	16	PDB header: isomerase Chain: B: PDB Molecule: diaminopimelate epimerase; PDBTitle: crystal structure of the catalytically active form of diaminopimelate2 epimerase from bacillus anthracis
9	c2gkiA_	 Alignment		100.0	15	PDB header: isomerase Chain: A: PDB Molecule: diaminopimelate epimerase; PDBTitle: crystal structure of diaminopimelate epimerase in complex2 with an irreversible inhibitor dl-azidap
10	c2azpA_	 Alignment		100.0	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein pa1268; PDBTitle: crystal structure of pa1268 solved by sulfur sad
11	c1w62B_	 Alignment		100.0	13	PDB header: racemase Chain: B: PDB Molecule: b-cell mitogen; PDBTitle: proline racemase in complex with one molecule of pyrrole-2-2 carboxylic acid (hemi form)

12	d1qy9a1	 Alignment		100.0	99	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
13	c3fveA	 Alignment		100.0	16	PDB header: isomerase Chain: A: PDB Molecule: diaminopimelate epimerase; PDBTitle: crystal structure of diaminopimelate epimerase mycobacterium2 tuberculosis dapf
14	d1u0ka1	 Alignment		100.0	26	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
15	d1xuba1	 Alignment		100.0	33	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
16	d1qy9a2	 Alignment		100.0	98	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
17	d1tm0a	 Alignment		100.0	14	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: Proline racemase
18	d1xuba2	 Alignment		100.0	30	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
19	d1u0ka2	 Alignment		99.9	30	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
20	d2gkea1	 Alignment		99.9	20	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: Diaminopimelate epimerase
21	d2gkea2	 Alignment	not modelled	99.8	13	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: Diaminopimelate epimerase
22	c3g7kD	 Alignment	not modelled	98.2	16	PDB header: isomerase Chain: D: PDB Molecule: 3-methylitaconate isomerase; PDBTitle: crystal structure of methylitaconate-delta-isomerase
23	c2pw0A	 Alignment	not modelled	98.1	18	PDB header: unknown function Chain: A: PDB Molecule: prpf methylitaconate isomerase; PDBTitle: crystal structure of trans-aconitate bound to methylitaconate2 isomerase prpf from shewanella oneidensis
24	d2h9fa2	 Alignment	not modelled	96.0	23	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PA0793-like
25	c3ldgA	 Alignment	not modelled	40.2	18	PDB header: transferase Chain: A: PDB Molecule: putative uncharacterized protein smu.472; PDBTitle: crystal structure of smu.472, a putative methyltransferase complexed2 with sah
26	c3k0bA	 Alignment	not modelled	38.8	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: predicted n6-adenine-specific dna methylase; PDBTitle: crystal structure of a predicted n6-adenine-specific dna methylase2 from listeria monocytogenes str. 4b f2365
27	d1g60a	 Alignment	not modelled	36.5	19	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Type II DNA methylase
28	d1booa	 Alignment	not modelled	33.8	13	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases

						Family: Type II DNA methylase PDB header: transferase
29	c2zifB	Alignment	not modelled	32.7	23	Chain: B: PDB Molecule: putative modification methylase; PDBTitle: crystal structure of ttha0409, putative dna modification2 methylase from thermus thermophilus hb8- complexed with s-3 adenosyl-l-methionine
30	d1euza2	Alignment	not modelled	31.7	26	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
31	d1bgva2	Alignment	not modelled	31.5	19	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
32	d1v9la2	Alignment	not modelled	31.0	19	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
33	c1nw6A	Alignment	not modelled	29.6	19	PDB header: transferase Chain: A: PDB Molecule: modification methylase rsri; PDBTitle: structure of the beta class n6-adenine dna methyltransferase rsri2 bound to sinefungin
34	d1o9ga	Alignment	not modelled	28.7	27	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: rRNA methyltransferase AviRa
35	d1gtma2	Alignment	not modelled	26.6	23	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
36	d1eg2a	Alignment	not modelled	24.2	17	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Type II DNA methylase
37	c3lduA	Alignment	not modelled	23.6	26	PDB header: transferase Chain: A: PDB Molecule: putative methylase; PDBTitle: the crystal structure of a possible methylase from2 clostridium difficile 630.
38	d1bvua2	Alignment	not modelled	23.4	23	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
39	d2ar0a1	Alignment	not modelled	22.3	36	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
40	d2fug21	Alignment	not modelled	21.7	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: NQO2-like
41	d1b26a2	Alignment	not modelled	21.7	26	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
42	c2waqG	Alignment	not modelled	20.6	27	PDB header: transcription Chain: G: PDB Molecule: dna-directed rna polymerase rpo8 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-2 directed rna polymerase
43	c3khkA	Alignment	not modelled	20.2	21	PDB header: dna binding protein Chain: A: PDB Molecule: type i restriction-modification system PDBTitle: crystal structure of type-i restriction-modification system2 methylation subunit (mm_0429) from methanosarchina mazei.
44	d1hwxa2	Alignment	not modelled	19.3	29	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
45	d2okca1	Alignment	not modelled	17.8	29	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
46	c2l3bA	Alignment	not modelled	17.4	33	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein found in conjugate transposon; PDBTitle: solution nmr structure of the bt_0084 lipoprotein from bacteroides2 thetaiotaomicron, northeast structural genomics consortium target3 btr376
47	d2f8la1	Alignment	not modelled	17.2	36	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
48	c2l7qA	Alignment	not modelled	16.3	27	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein found in conjugate transposon; PDBTitle: solution nmr structure of conjugate transposon protein bvu_1572(27-2 141) from bacteroides vulgatus, northeast structural genomics3 consortium target bvr155
49	c3p9nA	Alignment	not modelled	16.1	21	PDB header: transferase Chain: A: PDB Molecule: possible methyltransferase (methylase); PDBTitle: rv2966c of m. tuberculosis is a rsm-d-like methyltransferase
50	c1g38A	Alignment	not modelled	15.4	7	PDB header: transferase/dna Chain: A: PDB Molecule: modification methylase taqi; PDBTitle: adenine-specific methyltransferase m. taqi/dna complex
51	c3sb1B	Alignment	not modelled	15.4	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hydrogenase expression protein; PDBTitle: hydrogenase expression protein huph from thiobacillus denitrificans2 atcc 25259
52	c1aqjB	Alignment	not modelled	15.4	7	PDB header: methyltransferase Chain: B: PDB Molecule: adenine-n6-dna-methyltransferase taqi; PDBTitle: structure of adenine-n6-dna-methyltransferase taqi
53	d1uhsa	Alignment	not modelled	15.2	35	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like

						Family: Homeodomain
54	d2ih2a1	Alignment	not modelled	14.0	7	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: DNA methylase TaqI, N-terminal domain
55	d1l1fa2	Alignment	not modelled	14.0	29	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
56	c3lkdB_	Alignment	not modelled	13.5	21	PDB header: transferase Chain: B: PDB Molecule: type i restriction-modification system PDBTitle: crystal structure of the type i restriction-modification2 system methyltransferase subunit from streptococcus3 thermophilus, northeast structural genomics consortium4 target sur80
57	d1s7ea1	Alignment	not modelled	13.2	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
58	d1j6ua1	Alignment	not modelled	13.1	12	Fold: MurCD N-terminal domain Superfamily: MurCD N-terminal domain Family: MurCD N-terminal domain
59	d1ko7a1	Alignment	not modelled	13.1	13	Fold: MurF and HprK N-domain-like Superfamily: HprK N-terminal domain-like Family: HPr kinase/phosphatase HprK N-terminal domain
60	d2p81a1	Alignment	not modelled	12.2	41	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
61	c3itcA_	Alignment	not modelled	12.2	13	PDB header: hydrolase Chain: A: PDB Molecule: renal dipeptidase; PDBTitle: crystal structure of sco3058 with bound citrate and glycerol
62	c3k8zD_	Alignment	not modelled	11.8	19	PDB header: oxidoreductase Chain: D: PDB Molecule: nad-specific glutamate dehydrogenase; PDBTitle: crystal structure of gudb1 a decrypiated secondary glutamate2 dehydrogenase from b. subtilis
63	d1pjza_	Alignment	not modelled	11.7	24	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Thiopurine S-methyltransferase
64	c3c6vB_	Alignment	not modelled	11.2	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: probable tautomerase/dehalogenase au4130; PDBTitle: crystal structure of au4130/apc7354, a probable enzyme from the2 thermophilic fungus aspergillus fumigatus
65	c1v9lA_	Alignment	not modelled	11.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: glutamate dehydrogenase; PDBTitle: l-glutamate dehydrogenase from pyrobaculum islandicum2 complexed with nad
66	d1e3oc1	Alignment	not modelled	11.0	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
67	d1knxa1	Alignment	not modelled	10.9	3	Fold: MurF and HprK N-domain-like Superfamily: HprK N-terminal domain-like Family: HPr kinase/phosphatase HprK N-terminal domain
68	d1wy7a1	Alignment	not modelled	10.8	33	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Ta1320-like
69	c2i5gB_	Alignment	not modelled	10.6	23	PDB header: hydrolase Chain: B: PDB Molecule: amidohydrolase; PDBTitle: crystal structure of amidohydrolase from pseudomonas2 aeruginosa
70	c1bvuf_	Alignment	not modelled	10.4	23	PDB header: oxidoreductase Chain: F: PDB Molecule: protein (glutamate dehydrogenase); PDBTitle: glutamate dehydrogenase from thermococcus litoralis
71	c2vi6F_	Alignment	not modelled	10.3	41	PDB header: transcription Chain: F: PDB Molecule: homeobox protein nanog; PDBTitle: crystal structure of the nanog homeodomain
72	c2da4A_	Alignment	not modelled	10.3	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein dkfzp686k21156; PDBTitle: solution structure of the homeobox domain of the2 hypothetical protein, dkfzp686k21156
73	c3lu2B_	Alignment	not modelled	10.2	14	PDB header: hydrolase Chain: B: PDB Molecule: lmo2462 protein; PDBTitle: structure of lmo2462, a listeria monocytogenes amidohydrolase family2 putative dipeptidase
74	d1o4xa1	Alignment	not modelled	10.1	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
75	c3s1sA_	Alignment	not modelled	10.0	29	PDB header: hydrolase, transferase Chain: A: PDB Molecule: restriction endonuclease bpusi; PDBTitle: characterization and crystal structure of the type iig restriction2 endonuclease bpusi
76	d1p7ia_	Alignment	not modelled	9.8	41	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
77	c2da2A_	Alignment	not modelled	9.7	5	PDB header: transcription Chain: A: PDB Molecule: alpha-fetoprotein enhancer binding protein; PDBTitle: solution structure of the second homeobox domain of at-2 binding transcription factor 1 (atbf1)
78	c2tmgD_	Alignment	not modelled	9.5	26	PDB header: oxidoreductase Chain: D: PDB Molecule: protein (glutamate dehydrogenase); PDBTitle: thermotoga maritima glutamate dehydrogenase mutant s128r,2 t158e, n117r, s160e Fold: S-adenosyl-L-methionine-dependent methyltransferases

79	d1ne2a_	Alignment	not modelled	9.4	36	Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Ta1320-like
80	d2hi3a1	Alignment	not modelled	9.3	35	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
81	d1ws6a1	Alignment	not modelled	9.3	29	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: YhhF-like
82	c2da1A_	Alignment	not modelled	9.2	29	PDB header: transcription Chain: A: PDB Molecule: alpha-fetoprotein enhancer binding protein; PDBTitle: solution structure of the first homeobox domain of at-2 binding transcription factor 1 (atbf1)
83	d2ifta1	Alignment	not modelled	9.0	21	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: YhhF-like
84	c2yfqA_	Alignment	not modelled	9.0	23	PDB header: oxidoreductase Chain: A: PDB Molecule: nad-specific glutamate dehydrogenase; PDBTitle: crystal structure of glutamate dehydrogenase from2 peptoniphilus asaccharolyticus
85	c2l9rA_	Alignment	not modelled	8.9	29	PDB header: transcription Chain: A: PDB Molecule: homeobox protein nkx-3.1; PDBTitle: solution nmr structure of homeobox domain of homeobox protein nkx-3.12 from homo sapiens, northeast structural genomics consortium target3 hr6470a
86	d2cqxa1	Alignment	not modelled	8.8	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
87	c2ragB_	Alignment	not modelled	8.8	27	PDB header: hydrolase Chain: B: PDB Molecule: dipeptidase; PDBTitle: crystal structure of aminohydrolase from caulobacter crescentus
88	d2cuea1	Alignment	not modelled	8.7	12	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
89	c3aogA_	Alignment	not modelled	8.7	19	PDB header: oxidoreductase Chain: A: PDB Molecule: glutamate dehydrogenase; PDBTitle: crystal structure of glutamate dehydrogenase (gdhb) from thermus2 thermophilus (glu bound form)
90	d1au7a1	Alignment	not modelled	8.6	20	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
91	c2dmuA_	Alignment	not modelled	8.5	15	PDB header: dna binding protein Chain: A: PDB Molecule: homeobox protein gooseoid; PDBTitle: solution structure of the homeobox domain of homeobox2 protein gooseoid
92	d1jgga_	Alignment	not modelled	8.5	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
93	d2j85a1	Alignment	not modelled	8.5	20	Fold: STIV B116-like Superfamily: STIV B116-like Family: STIV B116-like
94	c3fdgA_	Alignment	not modelled	8.4	27	PDB header: hydrolase Chain: A: PDB Molecule: dipeptidase ac. metallo peptidase. merops family m19; PDBTitle: the crystal structure of the dipeptidase ac, metallo peptidase. merops2 family m19
95	d2hddb_	Alignment	not modelled	8.1	41	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
96	d1f43a_	Alignment	not modelled	8.1	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
97	d1le8a_	Alignment	not modelled	8.0	15	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
98	d1ztra1	Alignment	not modelled	7.9	41	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
99	c1ko7B_	Alignment	not modelled	7.9	13	PDB header: transferase,hydrolase Chain: B: PDB Molecule: hpr kinase/phosphatase; PDBTitle: x-ray structure of the hpr kinase/phosphatase from2 staphylococcus xylosus at 1.95 a resolution