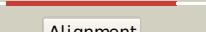
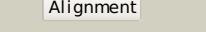
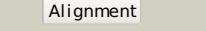
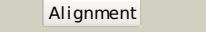
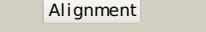
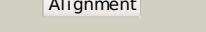
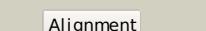
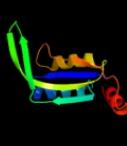
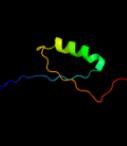
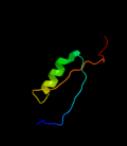
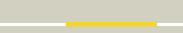
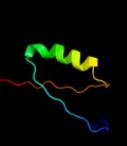
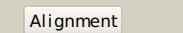
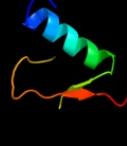
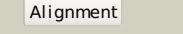
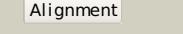
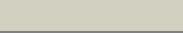


Phyre²

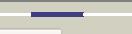
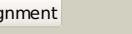
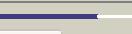
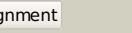
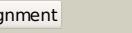
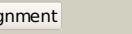
Email	i.a.kelley@imperial.ac.uk
Description	P69488
Date	Thu Jan 5 12:11:43 GMT 2012
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Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1naqa_			100.0	100	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
2	c2zomC_			100.0	41	PDB header: unknown function Chain: C; PDB Molecule: protein cuta, chloroplast, putative, expressed; PDBTitle: crystal structure of cuta1 from oryza sativa
3	c2zfhA_			100.0	37	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: cuta; PDBTitle: crystal structure of putative cuta1 from homo sapiens at 2.05a2 resolution
4	c1xk8A_			100.0	37	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: divalent cation tolerant protein cuta; PDBTitle: divalent cation tolerant protein cuta from homo sapiens2 o60888
5	d2zfh1a			100.0	37	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
6	c3ahpA_			100.0	28	PDB header: electron transport Chain: A; PDB Molecule: cuta1; PDBTitle: crystal structure of stable protein, cuta1, from a psychrotrophic2 bacterium shewanella sp. sib1
7	c2nuhA_			100.0	36	PDB header: unknown function Chain: A; PDB Molecule: periplasmic divalent cation tolerance protein; PDBTitle: crystal structure of cuta from the phytopathogen bacterium xylella2 fastidiosa
8	d1ukua_			100.0	37	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
9	d1pl1a_			100.0	32	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
10	d1kr4a_			100.0	34	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
11	d1osce_			100.0	37	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)

12	d1nzaa			100.0	39	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
13	d1vhfa			100.0	35	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Divalent ion tolerance proteins CutA (CutA1)
14	c2gx8B			90.7	22	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: nif3-related protein; PDBTitle: the crystal structure of bacillus cereus protein related to nif3
15	d2gx8a1			90.2	22	Fold: NIF3 (NGG1p interacting factor 3)-like Superfamily: NIF3 (NGG1p interacting factor 3)-like Family: NIF3 (NGG1p interacting factor 3)-like
16	c2nydB			72.8	20	PDB header: unknown function Chain: B; PDB Molecule: upf0135 protein sa1388; PDBTitle: crystal structure of staphylococcus aureus hypothetical protein sa1388
17	d1v3fa			71.4	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
18	d2csa01			62.7	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
19	d1w4ma			36.8	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
20	d1fsha			35.5	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
21	d1uhwa		not modelled	35.2	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
22	d1b4ba		not modelled	28.7	16	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
23	c2pbIA		not modelled	28.6	18	PDB header: signaling protein Chain: A; PDB Molecule: regulator of g-protein signaling 9; PDBTitle: the multifunctional nature of gbeta5/rgs9 revealed from its crystal2 structure
24	c3cagF		not modelled	25.0	12	PDB header: dna binding protein Chain: F; PDB Molecule: arginine repressor; PDBTitle: crystal structure of the oligomerization domain hexamer of the2 arginine repressor protein from mycobacterium tuberculosis in complex3 with 9 arginines.
25	d1gr0a1		not modelled	22.8	14	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
26	d1nkta4		not modelled	22.8	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
27	d1o7fa1		not modelled	22.7	8	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: DEP domain
28	c2ysrA		not modelled	21.4	13	PDB header: signaling protein Chain: A; PDB Molecule: dep domain-containing protein 1; PDBTitle: solution structure of the dep domain from human dep domain-2 containing protein 1

29	c3tl6B	Alignment	not modelled	18.5	9	PDB header: transferase Chain: B: PDB Molecule: purine nucleoside phosphorylase; PDBTitle: crystal structure of purine nucleoside phosphorylase from entamoeba histolytica
30	c1b4aA	Alignment	not modelled	17.7	16	PDB header: repressor Chain: A: PDB Molecule: arginine repressor; PDBTitle: structure of the arginine repressor from bacillus stearothermophilus
31	d1iznb	Alignment	not modelled	17.6	27	Fold: Subunits of heterodimeric actin filament capping protein Capz Superfamily: Subunits of heterodimeric actin filament capping protein Capz Family: Capz beta-1 subunit
32	c3lk2B	Alignment	not modelled	17.5	27	PDB header: protein binding Chain: B: PDB Molecule: f-actin-capping protein subunit beta isoforms 1 and 2; PDBTitle: crystal structure of capz bound to the uncapping motif from carmil
33	c3ml6D	Alignment	not modelled	17.2	25	PDB header: protein transport Chain: D: PDB Molecule: chimeric complex between protein dishevelled2 homolog dvl-2 PDBTitle: a complex between dishevelled2 and clathrin adaptor ap-2
34	c3ereD	Alignment	not modelled	17.1	12	PDB header: dna binding protein/dna Chain: D: PDB Molecule: arginine repressor; PDBTitle: crystal structure of the arginine repressor protein from mycobacterium2 tuberculosis in complex with the dna operator
35	c1vytF	Alignment	not modelled	13.8	33	PDB header: transport protein Chain: F: PDB Molecule: voltage-dependent I-type calcium channel PDBTitle: beta3 subunit complexed with aid
36	c1t0jC	Alignment	not modelled	13.7	33	PDB header: signaling protein Chain: C: PDB Molecule: voltage-dependent I-type calcium channel alpha-1c subunit; PDBTitle: crystal structure of a complex between voltage-gated calcium channel2 beta2a subunit and a peptide of the alpha1c subunit
37	d1u9ya1	Alignment	not modelled	12.8	12	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
38	c3qmlC	Alignment	not modelled	12.1	21	PDB header: chaperone/protein transport Chain: C: PDB Molecule: nucleotide exchange factor si11; PDBTitle: the structural analysis of si11-bip complex reveals the mechanism for2 si11 to function as a novel nucleotide exchange factor
39	c2v3sB	Alignment	not modelled	12.0	20	PDB header: transferase Chain: B: PDB Molecule: serine/threonine-protein kinase osr1; PDBTitle: structural insights into the recognition of substrates and2 activators by the osr1 kinase
40	c2l23A	Alignment	not modelled	11.8	23	PDB header: transcription Chain: A: PDB Molecule: mediator of rna polymerase ii transcription subunit 25; PDBTitle: nmr structure of the acid (activator interacting domain) of the human2 mediator med25 protein
41	d1i1ga2	Alignment	not modelled	11.6	18	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
42	d2ixma1	Alignment	not modelled	10.9	18	Fold: PTPA-like Superfamily: PTPA-like Family: PTPA-like
43	c2e1aD	Alignment	not modelled	10.6	21	PDB header: transcription Chain: D: PDB Molecule: 75aa long hypothetical regulatory protein asnc; PDBTitle: crystal structure of ffrp-dm1
44	d2cfxa2	Alignment	not modelled	10.4	8	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
45	d1vyua1	Alignment	not modelled	10.4	18	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
46	d1wjwa	Alignment	not modelled	10.1	29	Fold: TBP-like Superfamily: Phosphoglucomutase, C-terminal domain Family: Phosphoglucomutase, C-terminal domain
47	c2zbch	Alignment	not modelled	9.7	24	PDB header: transcription Chain: H: PDB Molecule: 83aa long hypothetical transcriptional regulator asnc; PDBTitle: crystal structure of sts042, a stand-alone ram module protein, from2 hyperthermophilic archaeon sulfolobus tokodaii strain7.
48	d1dkua1	Alignment	not modelled	9.7	13	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
49	c1vytE	Alignment	not modelled	9.3	33	PDB header: transport protein Chain: E: PDB Molecule: voltage-dependent I-type calcium channel PDBTitle: beta3 subunit complexed with aid
50	c3n5bB	Alignment	not modelled	9.1	25	PDB header: transcription regulator Chain: B: PDB Molecule: asr0485 protein; PDBTitle: the complex of pii and pipx from anabaena
51	c2g62A	Alignment	not modelled	9.0	18	PDB header: hydrolase activator Chain: A: PDB Molecule: protein phosphatase 2a, regulatory subunit b' (pr 53); PDBTitle: crystal structure of human ptpa
52	c2xg8D	Alignment	not modelled	8.9	17	PDB header: transcription Chain: D: PDB Molecule: pipx; PDBTitle: structural basis of gene regulation by protein pii: the2 crystal complex of pii and pipx from synecchococcus3 elongatus pcc 7942

53	c1ca0C		Alignment	not modelled	8.0	25	PDB header: complex (serine protease/inhibitor) Chain: C; PDB Molecule: bovine chymotrypsin; PDBTitle: bovine chymotrypsin complexed to appi
54	c2fugC		Alignment	not modelled	7.7	27	PDB header: oxidoreductase Chain: C; PDB Molecule: nadh-quinone oxidoreductase chain 3; PDBTitle: crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
55	d1tf5a4		Alignment	not modelled	7.6	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
56	c2djwF		Alignment	not modelled	7.6	18	PDB header: unknown function Chain: F; PDB Molecule: probable transcriptional regulator, asnc family; PDBTitle: crystal structure of ttha0845 from thermus thermophilus hb8
57	d1orf_a		Alignment	not modelled	7.6	13	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
58	c2cy8A		Alignment	not modelled	7.5	14	PDB header: transferase Chain: A; PDB Molecule: d-phenylglycine aminotransferase; PDBTitle: crystal structure of d-phenylglycine aminotransferase (d-phgat) from2 pseudomonas strutzeri st-201
59	d1xhna1		Alignment	not modelled	7.2	24	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
60	d2p5ma1		Alignment	not modelled	7.1	14	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
61	c3jx9B		Alignment	not modelled	7.0	9	PDB header: isomerase Chain: B; PDB Molecule: putative phosphoheptose isomerase; PDBTitle: crystal structure of putative phosphoheptose isomerase2 (yp_001815198.1) from exigubacterium sp. 255-15 at 1.95 a resolution
62	d1fuja		Alignment	not modelled	6.9	33	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
63	d1pfxc		Alignment	not modelled	6.7	17	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
64	d1j6wa		Alignment	not modelled	6.5	24	Fold: LuxS/MPP-like metallohydrolase Superfamily: LuxS/MPP-like metallohydrolase Family: Autoinducer-2 production protein LuxS
65	c3h4wA		Alignment	not modelled	6.3	19	PDB header: hydrolase Chain: A; PDB Molecule: phosphatidylinositol-specific phospholipase c1; PDBTitle: structure of a ca+2 dependent phosphatidylinositol-specific2 phospholipase c (pi-plc) enzyme from streptomyces antibioticus
66	d1eufa		Alignment	not modelled	6.2	40	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
67	d2ac7a1		Alignment	not modelled	6.1	11	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
68	d1m9ua		Alignment	not modelled	6.1	33	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
69	d1vjea		Alignment	not modelled	6.0	41	Fold: LuxS/MPP-like metallohydrolase Superfamily: LuxS/MPP-like metallohydrolase Family: Autoinducer-2 production protein LuxS
70	c2r0IA		Alignment	not modelled	6.0	33	PDB header: hydrolase, immune system Chain: A; PDB Molecule: hepatocyte growth factor activator; PDBTitle: short form hgfa with inhibitory fab75
71	d1fmca		Alignment	not modelled	6.0	9	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
72	c1md7A		Alignment	not modelled	5.9	17	PDB header: hydrolase Chain: A; PDB Molecule: c1r complement serine protease; PDBTitle: monomeric structure of the zymogen of complement protease2 c1r
73	c1x60A		Alignment	not modelled	5.9	28	PDB header: hydrolase Chain: A; PDB Molecule: sporulation-specific n-acetyl muramoyl-l-alanine PDBTitle: solution structure of the peptidoglycan binding domain of2 b. subtilis cell wall lytic enzyme cwlC
74	d1os8a		Alignment	not modelled	5.8	17	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Prokaryotic proteases
75	d1xx9a		Alignment	not modelled	5.8	20	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
76	c1aksB		Alignment	not modelled	5.6	20	PDB header: serine protease Chain: B; PDB Molecule: alpha trypsin; PDBTitle: crystal structure of the first active autolysate form of2 the porcine alpha trypsin
77	d1xe0a		Alignment	not modelled	5.5	32	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Nucleoplasmin-like core domain Family: Nucleoplasmin-like core domain
78	d1qd1a2		Alignment	not modelled	5.4	8	Fold: Ferredoxin-like Superfamily: Formiminotransferase domain of formiminotransferase-cyclodeaminase.

					Family: Formiminotransferase domain of formiminotransferase-cyclodeaminase.
79	d1rfna_		not modelled	5.3	17 Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Eukaryotic proteases
80	d2cyaa2		not modelled	5.2	22 Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain