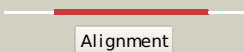

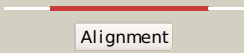




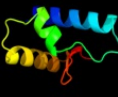

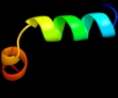
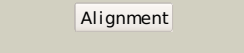



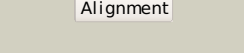



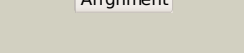

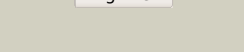


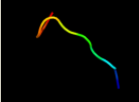
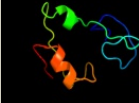


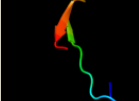
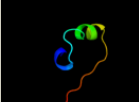




Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P76119
Date	Thu Jan 5 12:19:12 GMT 2012
Unique Job ID	54f5ff49bec59528

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1b7ea_	 Alignment		98.1	11	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Transposase inhibitor (Tn5 transposase)
2	d1musa_	 Alignment		98.0	14	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Transposase inhibitor (Tn5 transposase)
3	d2v9va2	 Alignment		79.2	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: C-terminal fragment of elongation factor SelB
4	c2v9vA_	 Alignment		66.0	16	PDB header: transcription Chain: A: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: crystal structure of moorella thermoacetica selb(377-511)
5	d2ezha_	 Alignment		52.4	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Recombinase DNA-binding domain
6	d2ezia_	 Alignment		49.6	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Recombinase DNA-binding domain
7	c3hefB_	 Alignment		39.9	17	PDB header: viral protein Chain: B: PDB Molecule: gene 1 protein; PDBTitle: crystal structure of the bacteriophage sf6 terminase small2 subunit
8	c6paxA_	 Alignment		36.1	27	PDB header: gene regulation/dna Chain: A: PDB Molecule: homeobox protein pax-6; PDBTitle: crystal structure of the human pax-6 paired domain-dna2 complex reveals a general model for pax protein-dna3 interactions
9	c2kzvA_	 Alignment		29.9	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of cv_0373(175-257) protein from2 chromobacterium violaceum, northeast structural genomics consortium3 target cvr118a
10	c2vp8A_	 Alignment		24.3	19	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase 2; PDBTitle: structure of mycobacterium tuberculosis rv1207
11	d1osna_	 Alignment		20.4	7	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases

12	c2plyB_	Alignment		19.1	16	PDB header: translation/rna Chain: B: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: structure of the mrna binding fragment of elongation factor2 selb in complex with secis rna.
13	c3nswA_	Alignment		17.5	70	PDB header: immune system Chain: A: PDB Molecule: excretory-secretory protein 2; PDBTitle: crystal structure of ancylostoma ceylanicum excretory-secretory2 protein 2
14	c3a52A_	Alignment		17.1	15	PDB header: hydrolase Chain: A: PDB Molecule: cold-active alkaline phosphatase; PDBTitle: crystal structure of cold-active alkailne phosphatase from2 psychrophile shewanella sp.
15	d1ajza_	Alignment		16.1	11	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
16	c3e2dB_	Alignment		15.9	12	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: the 1.4 a crystal structure of the large and cold-active2 vibrio sp. alkaline phosphatase
17	c3mx7A_	Alignment		15.3	17	PDB header: apoptosis Chain: A: PDB Molecule: fas apoptotic inhibitory molecule 1; PDBTitle: crystal structure analysis of human faim-ntd
18	d3orca_	Alignment		14.4	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
19	c2y5sA_	Alignment		14.4	17	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase; PDBTitle: crystal structure of burkholderia cenocepacia dihydropteroate2 synthase complexed with 7,8-dihydropteroate.
20	d1pdnc_	Alignment		13.6	20	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
21	dliyxal	Alignment	not modelled	13.3	25	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: Enolase
22	c3r1iB_	Alignment	not modelled	13.1	25	PDB header: oxidoreductase Chain: B: PDB Molecule: short-chain type dehydrogenase/reductase; PDBTitle: crystal structure of a short-chain type dehydrogenase/reductase from2 mycobacterium marinum
23	c1hj0A_	Alignment	not modelled	12.2	25	PDB header: actin binding peptide Chain: A: PDB Molecule: thymosin beta9; PDBTitle: thymosin beta9
24	d1eyea_	Alignment	not modelled	11.5	19	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
25	d1dlwa_	Alignment	not modelled	10.5	13	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
26	c2iucB_	Alignment	not modelled	10.0	23	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: structure of alkaline phosphatase from the antarctic2 bacterium tab5
27	d1uuza_	Alignment	not modelled	9.7	15	Fold: Inhibitor of vertebrate lysozyme, Ivy Superfamily: Inhibitor of vertebrate lysozyme, Ivy Family: Inhibitor of vertebrate lysozyme, Ivy
28	d1d1la_	Alignment	not modelled	9.6	24	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
29	d2hxja1	Alignment	not modelled	9.5	14	Fold: FinO-like Superfamily: FinO-like

					Family: FinO-like
30	d2gm3a1	Alignment	not modelled	9.5	13 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: Universal stress protein-like
31	c3rf7A_	Alignment	not modelled	9.3	13 PDB header: oxidoreductase Chain: A: PDB Molecule: iron-containing alcohol dehydrogenase; PDBTitle: crystal structure of an iron-containing alcohol dehydrogenase2 (sden_2133) from shewanella denitrificans os-217 at 2.12 a resolution
32	c3emkA_	Alignment	not modelled	9.1	21 PDB header: oxidoreductase Chain: A: PDB Molecule: glucose/ribitol dehydrogenase; PDBTitle: 2.5a crystal structure of glucose/ribitol dehydrogenase2 from brucella melitensis
33	d2a22a1	Alignment	not modelled	9.1	20 Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: YfcE-like
34	d2fgga1	Alignment	not modelled	9.0	31 Fold: dsRBD-like Superfamily: Rv2632c-like Family: Rv2632c-like
35	c2kvcA_	Alignment	not modelled	8.8	27 PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: solution structure of the mycobacterium tuberculosis protein rv0543c,2 a member of the duf3349 superfamily. seattle structural genomics3 center for infectious disease target mytud.17112.a
36	d1mpga1	Alignment	not modelled	8.8	8 Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: DNA repair glycosylase, 2 C-terminal domains
37	c3douA_	Alignment	not modelled	8.8	20 PDB header: transferase Chain: A: PDB Molecule: ribosomal rna large subunit methyltransferase j; PDBTitle: crystal structure of methyltransferase involved in cell2 division from thermoplasma volcanicum gss1
38	c2pijB_	Alignment	not modelled	8.6	16 PDB header: transcription Chain: B: PDB Molecule: prophage pfl 6 cro; PDBTitle: structure of the cro protein from prophage pfl 6 in pseudomonas2 fluorescens pf-5
39	d4croa_	Alignment	not modelled	8.3	24 Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
40	c3pk0B_	Alignment	not modelled	8.3	12 PDB header: oxidoreductase Chain: B: PDB Molecule: short-chain dehydrogenase/reductase sdr; PDBTitle: crystal structure of short-chain dehydrogenase/reductase sdr from2 mycobacterium smegmatis
41	d1e8qa_	Alignment	not modelled	8.2	13 Fold: Cellulose docking domain, docking Superfamily: Cellulose docking domain, docking Family: Cellulose docking domain, docking
42	d2ezla_	Alignment	not modelled	8.1	12 Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Recombinase DNA-binding domain
43	d1vi7a1	Alignment	not modelled	8.0	19 Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: YigZ N-terminal domain-like
44	d1xb4a2	Alignment	not modelled	7.8	10 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
45	c2rfpA_	Alignment	not modelled	7.8	10 PDB header: hydrolase Chain: A: PDB Molecule: putative ntp pyrophosphohydrolase; PDBTitle: crystal structure of putative ntp pyrophosphohydrolase2 (yp_001813558.1) from exiguobacterium sibiricum 255-15 at 1.74 a3 resolution
46	c3gk0H_	Alignment	not modelled	7.2	24 PDB header: transferase Chain: H: PDB Molecule: pyridoxine 5'-phosphate synthase; PDBTitle: crystal structure of pyridoxal phosphate biosynthetic2 protein from burkholderia pseudomallei
47	c2z1nA_	Alignment	not modelled	7.1	24 PDB header: oxidoreductase Chain: A: PDB Molecule: dehydrogenase; PDBTitle: crystal structure of ape0912 from aeropyrum pernix k1
48	d3bpya1	Alignment	not modelled	7.0	11 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Forkhead DNA-binding domain
49	d1s69a_	Alignment	not modelled	7.0	20 Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
50	c2hxfF_	Alignment	not modelled	7.0	14 PDB header: structural genomics, unknown function Chain: F: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a protein of unknown function nmb1681 from2 neisseria meningitidis mc58, possible nucleic acid binding protein
51	d1cyda_	Alignment	not modelled	7.0	22 Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
52	d2c6ya1	Alignment	not modelled	6.8	3 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Forkhead DNA-binding domain
53	d2ptza1	Alignment	not modelled	6.8	20 Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: Enolase
54	c3l1pA_	Alignment	not modelled	6.7	17 PDB header: transcription/dna Chain: A: PDB Molecule: pou domain, class 5, transcription factor 1;

						PDBTitle: pou protein:dna complex PDB header: gene regulation Chain: B: PDB Molecule: retro-gcn4 leucine zipper; PDBTitle: reversing the sequence of the gcn4 leucine zipper does not2 affect its fold.
55	c1c94B_	Alignment	not modelled	6.7	38	PDB header: oxygen binding Chain: A: PDB Molecule: group 1 truncated hemoglobin; PDBTitle: crystal structure of truncated hemoglobin from tetrahymena pyriformis,2 q46e mutant, fe(iii) form
56	c3aq8A_	Alignment	not modelled	6.5	13	PDB header: unknown function Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a putative uncharacterized protein from2 mycobacterium smegmatis, an ortholog of rv0543c
57	c3ol4B_	Alignment	not modelled	6.5	35	PDB header: oxidoreductase Chain: C: PDB Molecule: nadh-dependent quinuclidinone reductase; PDBTitle: crystal structure of nadh-dependent quinuclidinone reductase from2 agrobacterium tumefaciens
58	c3ak4C_	Alignment	not modelled	6.4	13	PDB header: oxidoreductase Chain: D: PDB Molecule: short-chain dehydrogenase/reductase; PDBTitle: crystal structure of the short chain dehydrogenase2 galactitol-dehydrogenase (gatdh) of rhodobacter3 sphaeroides in complex with nad+ and 1,2-pentandiol
59	c2wdzD_	Alignment	not modelled	6.4	18	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phoshate binding barrel Family: Decarboxylase
60	d2czda1	Alignment	not modelled	6.3	22	PDB header: dna binding domain Chain: A: PDB Molecule: afx; PDBTitle: solution structure of the dna binding domain of the human2 forkhead transcription factor afx (foxo4)
61	c1e17A_	Alignment	not modelled	6.3	7	PDB header: oxidoreductase Chain: A: PDB Molecule: dehydrogenase with different specificities; PDBTitle: quaternary complex structure of gluconate 5-dehydrogenase from2 streptococcus suis type 2
62	c3cxtA_	Alignment	not modelled	6.2	24	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: Enolase
63	d1w6ta1	Alignment	not modelled	6.2	24	PDB header: oxidoreductase Chain: B: PDB Molecule: alkane monooxygenase; PDBTitle: crystal structure of long-chain alkane monooxygenase (lada)
64	c3b9nB_	Alignment	not modelled	6.0	15	PDB header: de novo protein Chain: A: PDB Molecule: or15; PDBTitle: solution nmr structure of de novo designed ferredoxin-like2 fold protein, northeast structural genomics consortium3 target or15
65	c2kl8A_	Alignment	not modelled	6.0	22	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
66	d1l1ya_	Alignment	not modelled	6.0	57	PDB header: hydrolase Chain: D: PDB Molecule: cellobiohydrolase; PDBTitle: the crystal structure and catalytic mechanism of2 cellobiohydrolase cels, the major enzymatic component of3 the clostridium thermocellum cellulosome
67	c1l2aD_	Alignment	not modelled	6.0	57	PDB header: de novo protein Chain: A: PDB Molecule: or15; PDBTitle: solution nmr structure of de novo designed ferredoxin-like2 fold protein, northeast structural genomics consortium3 target or15
68	c1qcrD_	Alignment	not modelled	5.9	6	PDB header: PDB COMPND:
69	d1g31a_	Alignment	not modelled	5.8	20	Fold: GroES-like Superfamily: GroES-like Family: GroES
70	c3gdfA_	Alignment	not modelled	5.6	18	PDB header: oxidoreductase Chain: A: PDB Molecule: probable nadp-dependent mannitol dehydrogenase; PDBTitle: crystal structure of the nadp-dependent mannitol dehydrogenase from2 cladosporium herbarum.
71	d2abka_	Alignment	not modelled	5.4	13	Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: Endonuclease III
72	c2o2sA_	Alignment	not modelled	5.4	13	PDB header: oxidoreductase Chain: A: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: the structure of t. gondii enoyl acyl carrier protein reductase in2 complex with nad and triclosan
73	d1m5wa_	Alignment	not modelled	5.4	24	Fold: TIM beta/alpha-barrel Superfamily: Pyridoxine 5'-phosphate synthase Family: Pyridoxine 5'-phosphate synthase
74	c3cwbQ_	Alignment	not modelled	5.3	5	PDB header: oxidoreductase Chain: Q: PDB Molecule: mitochondrial cytochrome c1, heme protein; PDBTitle: chicken cytochrome bc1 complex inhibited by an iodinated analogue of2 the polyketide crocacin-d
75	c1htrP_	Alignment	not modelled	5.3	20	PDB header: aspartyl protease Chain: P: PDB Molecule: progastricsin (pro segment); PDBTitle: crystal and molecular structures of human progastricsin at 1.622 angstroms resolution
76	d1un2a_	Alignment	not modelled	5.2	16	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbA-like
77	c3co7C_	Alignment	not modelled	5.2	11	PDB header: transcription/dna Chain: C: PDB Molecule: forkhead box protein o1; PDBTitle: crystal structure of foxo1 dbd bound to dbe2 dna
78	d2giab1	Alignment	not modelled	5.2	50	Fold: ssDNA-binding transcriptional regulator domain Superfamily: ssDNA-binding transcriptional regulator domain Family: Guide RNA binding protein gbp
79	c2giaB_	Alignment	not modelled	5.2	50	PDB header: translation Chain: B: PDB Molecule: mitochondrial rna-binding protein 1;

					PDBTitle: crystal structures of trypanosoma brucei mrp1/mrp2
80	d2i7pa1	Alignment	not modelled	5.2	23 Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Fumble-like
81	c3gafF_	Alignment	not modelled	5.1	15 PDB header: oxidoreductase Chain: F: PDB Molecule: 7-alpha-hydroxysteroid dehydrogenase; PDBTitle: 2.2a crystal structure of 7-alpha-hydroxysteroid2 dehydrogenase from brucella melitensis
82	d2c4ka1	Alignment	not modelled	5.1	23 Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
83	c3hluA_	Alignment	not modelled	5.1	20 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein duf2179; PDBTitle: crystal structure of uncharacterized protein conserved in bacteria2 duf2179 from eubacterium ventriosum
84	c2bmbA_	Alignment	not modelled	5.1	20 PDB header: transferase Chain: A: PDB Molecule: folic acid synthesis protein fol1; PDBTitle: x-ray structure of the bifunctional 6-hydroxymethyl-7,8-2 dihydroxypterin pyrophosphokinase dihydropteroate synthase3 from saccharomyces cerevisiae
85	d1gpqa_	Alignment	not modelled	5.1	16 Fold: Inhibitor of vertebrate lysozyme, lvy Superfamily: Inhibitor of vertebrate lysozyme, lvy Family: Inhibitor of vertebrate lysozyme, lvy
86	d2o23a1	Alignment	not modelled	5.1	15 Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
87	c2x4mD_	Alignment	not modelled	5.1	27 PDB header: hydrolase Chain: D: PDB Molecule: coagulase/fibrinolysin; PDBTitle: yersinia pestis plasminogen activator pla
88	d1g9ga_	Alignment	not modelled	5.0	26 Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain