



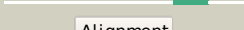
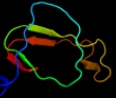
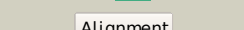






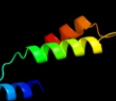
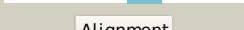

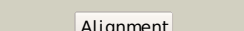

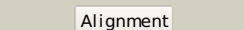












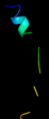













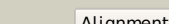
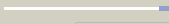
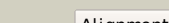



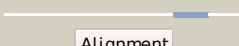
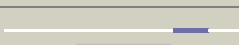

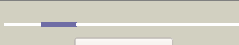


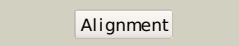
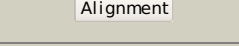
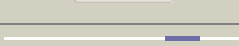
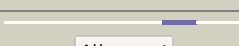


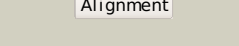
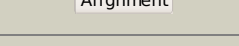

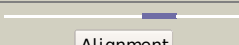
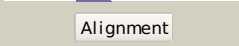
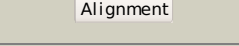
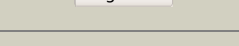
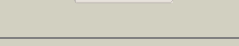



Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P11071
Date	Thu Jan 5 11:32:28 GMT 2012
Unique Job ID	6c4c1230b88a96be

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3epsB_	 Alignment		100.0	99	PDB header: transferase, hydrolase Chain: B: PDB Molecule: isocitrate dehydrogenase kinase/phosphatase; PDBTitle: the crystal structure of isocitrate dehydrogenase kinase/phosphatase2 from e. coli
2	c2an7A_	 Alignment		60.7	33	PDB header: dna binding protein Chain: A: PDB Molecule: protein pard; PDBTitle: solution structure of the bacterial antidote pard
3	d1o5ua_	 Alignment		49.4	22	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Hypothetical protein TM1112
4	c3pcsB_	 Alignment		47.3	35	PDB header: protein transport/transferase Chain: B: PDB Molecule: espg; PDBTitle: structure of espg-pak2 autoinhibitory ialpha3 helix complex
5	c3es4B_	 Alignment		46.9	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein duf861 with a rmlc-like cupin fold; PDBTitle: crystal structure of protein of unknown function (duf861) with a rmlc-2 like cupin fold (17741406) from agrobacterium tumefaciens str. c583 (dupont) at 1.64 a resolution
6	c3myxA_	 Alignment		40.7	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pspto_0244; PDBTitle: crystal structure of a pspto_0244 (protein with unknown function which2 belongs to pfam duf861 family) from pseudomonas syringae pv. tomato3 str. dc3000 at 1.30 a resolution
7	c3rmiA_	 Alignment		39.2	16	PDB header: isomerase Chain: A: PDB Molecule: chorismate mutase protein; PDBTitle: crystal structure of chorismate mutase from bartonella henselae str.2 houston-1 in complex with malate
8	c3hm5A_	 Alignment		38.0	36	PDB header: transcription Chain: A: PDB Molecule: dna methyltransferase 1-associated protein 1; PDBTitle: sant domain of human dna methyltransferase 1 associated2 protein 1
9	c3hzpA_	 Alignment		36.5	53	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ntf2-like protein of unknown function; PDBTitle: crystal structure of ntf2-like protein of unknown function mn2a_05052 from prochlorococcus marinus (yp_291699.1) from prochlorococcus sp.3 natf2a at 1.40 a resolution
10	c1nvpB_	 Alignment		35.0	23	PDB header: transcription/dna Chain: B: PDB Molecule: transcription initiation factor iia alpha chain; PDBTitle: human tfiia/tbp/dna complex
11	d1nvpb_	 Alignment		35.0	23	Fold: Transcription factor IIA (TFIIA), alpha-helical domain Superfamily: Transcription factor IIA (TFIIA), alpha-helical domain Family: Transcription factor IIA (TFIIA), alpha-helical domain

12	d1nh2b_	 Alignment		34.3	22	Fold: Transcription factor IIA (TFIIA), alpha-helical domain Superfamily: Transcription factor IIA (TFIIA), alpha-helical domain Family: Transcription factor IIA (TFIIA), alpha-helical domain
13	d1dwka2	 Alignment		32.7	19	Fold: Cyanase C-terminal domain Superfamily: Cyanase C-terminal domain Family: Cyanase C-terminal domain
14	d2pyta1	 Alignment		30.1	45	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: EutQ-like
15	d1oe4a_	 Alignment		29.8	17	Fold: Uracil-DNA glycosylase-like Superfamily: Uracil-DNA glycosylase-like Family: Single-strand selective monofunctional uracil-DNA glycosylase SMUG1
16	c3ff6D_	 Alignment		27.7	28	PDB header: ligase Chain: D: PDB Molecule: acetyl-coa carboxylase 2; PDBTitle: human acc2 ct domain with cp-640186
17	c2wk1A_	 Alignment		26.0	26	PDB header: transferase Chain: A: PDB Molecule: novp; PDBTitle: structure of the o-methyltransferase novp
18	c2b3fD_	 Alignment		26.0	14	PDB header: sugar binding protein Chain: D: PDB Molecule: glucose-binding protein; PDBTitle: thermus thermophilus glucose/galactose binding protein2 bound with galactose
19	d1zl8a1	 Alignment		25.2	29	Fold: L27 domain Superfamily: L27 domain Family: L27 domain
20	c3fewX_	 Alignment		24.2	42	PDB header: immune system Chain: X: PDB Molecule: colicin s4; PDBTitle: structure and function of colicin s4, a colicin with a2 duplicated receptor binding domain
21	c3ic7A_	 Alignment	not modelled	22.8	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of putative transcriptional regulator of gnr family2 from bacteroides thetaiotaomicron
22	c2w7yA_	 Alignment	not modelled	22.7	22	PDB header: sugar-binding protein Chain: A: PDB Molecule: probable sugar abc transporter, sugar-binding PDBTitle: structure of a streptococcus pneumoniae solute-binding2 protein in complex with the blood group a-trisaccharide.
23	c2og5A_	 Alignment	not modelled	22.3	14	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxygenase; PDBTitle: crystal structure of asparagine oxygenase (asno)
24	c3kpaB_	 Alignment	not modelled	22.2	26	PDB header: ligase Chain: B: PDB Molecule: probable ubiquitin fold modifier conjugating enzyme; PDBTitle: ubiquitin fold modifier conjugating enzyme from leishmania major2 (probable)
25	d1f3va_	 Alignment	not modelled	21.5	19	Fold: Ferredoxin-like Superfamily: TRADD, N-terminal domain Family: TRADD, N-terminal domain
26	c3ckxA_	 Alignment	not modelled	21.1	19	PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase 24; PDBTitle: crystal structure of sterile 20-like kinase 3 (mst3, stk24)2 in complex with staurosporine
27	c3nquA_	 Alignment	not modelled	20.8	16	PDB header: dna binding protein Chain: A: PDB Molecule: histone h3-like centromeric protein a; PDBTitle: crystal structure of partially trypsinized (cenp-a/h4)2 heterotetramer
28	d2gtvx1	 Alignment	not modelled	20.6	10	Fold: Chorismate mutase II Superfamily: Chorismate mutase II Family: monomeric chorismate mutase

29	c1rm1C	 Alignment	not modelled	20.3	23	PDB header: transcription/dna Chain: C: PDB Molecule: transcription initiation factor iia large chain; PDBTitle: structure of a yeast tfiia/tbp/tata-box dna complex
30	c2z8fB	 Alignment	not modelled	20.0	19	PDB header: sugar binding protein Chain: B: PDB Molecule: galacto-n-biose/lacto-n-biose i transporter substrate- PDBTitle: the galacto-n-biose-/lacto-n-biose i-binding protein (gl-bp) of the2 abc transporter from bifidobacterium longum in complex with lacto-n-3 tetraose
31	c3i3vC	 Alignment	not modelled	19.8	14	PDB header: transport protein Chain: C: PDB Molecule: probable secreted solute-binding lipoprotein; PDBTitle: crystal structure of probable secreted solute-binding2 lipoprotein from streptomyces coelicolor
32	c2l0rA	 Alignment	not modelled	19.4	21	PDB header: hydrolase,toxin Chain: A: PDB Molecule: lethal factor; PDBTitle: conformational dynamics of the anthrax lethal factor catalytic center
33	d1ppjw	 Alignment	not modelled	18.8	7	Fold: Single transmembrane helix Superfamily: Subunit X (non-heme 7 kDa protein) of cytochrome bc1 complex (Ubiquinol-cytochrome c reductase) Family: Subunit X (non-heme 7 kDa protein) of cytochrome bc1 complex (Ubiquinol-cytochrome c reductase)
34	c2hjbB	 Alignment	not modelled	18.7	14	PDB header: hydrolase Chain: B: PDB Molecule: atp-dependent rna helicase dbpa; PDBTitle: structure of the second domain (residues 207-368) of the2 bacillus subtilis yxin protein
35	c3koxA	 Alignment	not modelled	18.1	50	PDB header: metal binding protein Chain: A: PDB Molecule: d-ornithine aminomutase e component; PDBTitle: crystal structure of ornithine 4,5 aminomutase in complex with 2,4-2 diaminobutyrate (anaerobic)
36	c3lj4i	 Alignment	not modelled	17.3	20	PDB header: viral protein Chain: I: PDB Molecule: portal protein; PDBTitle: bacteriophage p22 portal protein bound to middle tail factor gp4. this2 file contain the first biological assembly
37	d1p3ie	 Alignment	not modelled	17.3	13	Fold: Histone-fold Superfamily: Histone-fold Family: Nucleosome core histones
38	d1miaa1	 Alignment	not modelled	17.2	33	Fold: BRCA2 helical domain Superfamily: BRCA2 helical domain Family: BRCA2 helical domain
39	c2iv1J	 Alignment	not modelled	16.7	19	PDB header: lyase Chain: J: PDB Molecule: cyanate hydratase; PDBTitle: site directed mutagenesis of key residues involved in the2 catalytic mechanism of cyanase
40	d1ckma2	 Alignment	not modelled	16.6	23	Fold: ATP-grasp Superfamily: DNA ligase/mRNA capping enzyme, catalytic domain Family: mRNA capping enzyme
41	d2ihoA2	 Alignment	not modelled	16.4	26	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: MOA C-terminal domain-like
42	d2ff4a2	 Alignment	not modelled	16.2	5	Fold: alpha-alpha superhelix Superfamily: TPR-like Family: BTAD-like
43	c3bcwB	 Alignment	not modelled	16.1	31	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a duf861 family protein with a rmlc-like cupin2 fold (bb1179) from bordetella bronchiseptica rb50 at 1.60 a3 resolution
44	d1pc2a	 Alignment	not modelled	15.5	22	Fold: alpha-alpha superhelix Superfamily: TPR-like Family: Tetratricopeptide repeat (TPR)
45	d1t5ia	 Alignment	not modelled	15.3	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
46	c3oqbB	 Alignment	not modelled	15.2	23	PDB header: ligase Chain: B: PDB Molecule: putative uncharacterized protein yvmc; PDBTitle: crystal structure of b. licheniformis cdps yvmc-blic
47	c2dnrA	 Alignment	not modelled	15.2	35	PDB header: rna binding protein Chain: A: PDB Molecule: synaptojanin-1; PDBTitle: solution structure of rna binding domain in synaptojanin 1
48	d2h9ec1	 Alignment	not modelled	15.1	33	Fold: Serine protease inhibitors Superfamily: Serine protease inhibitors Family: ATI-like
49	d1mvfd	 Alignment	not modelled	14.5	21	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/PemI addiction antidote
50	c3ls1A	 Alignment	not modelled	14.3	15	PDB header: photosynthesis Chain: A: PDB Molecule: sl1638 protein; PDBTitle: crystal structure of cyanobacterial psbq from synechocystis2 sp. pcc 6803 complexed with zn2+
51	c2ihoA	 Alignment	not modelled	14.3	26	PDB header: sugar binding protein Chain: A: PDB Molecule: lectin; PDBTitle: crystal structure of moa, a lectin from the mushroom marasmius oreades2 in complex with the trisaccharide gal(1,3)gal(1,4)glcnac
52	c2a8vA	 Alignment	not modelled	14.1	24	PDB header: protein/rna Chain: A: PDB Molecule: rna binding domain of rho transcription PDBTitle: rho transcription termination factor/rna complex
53	d2e29a1	Alignment	not modelled	13.8	38	Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: GUCT domain

54	c2vwiC	Alignment	not modelled	13.6	14	PDB header: transferase Chain: C: PDB Molecule: serine/threonine-protein kinase osr1; PDBTitle: structure of the osr1 kinase, a hypertension drug target
55	d1a62a2	Alignment	not modelled	13.4	24	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
56	d2enda	Alignment	not modelled	13.2	15	Fold: T4 endonuclease V Superfamily: T4 endonuclease V Family: T4 endonuclease V
57	c2qbvA	Alignment	not modelled	13.1	20	PDB header: isomerase Chain: A: PDB Molecule: chorismate mutase; PDBTitle: crystal structure of intracellular chorismate mutase from2 mycobacterium tuberculosis
58	c3dkqB	Alignment	not modelled	12.9	22	PDB header: oxidoreductase Chain: B: PDB Molecule: pkhd-type hydroxylase sbal_3634; PDBTitle: crystal structure of putative oxygenase (yp_001051978.1) from2 shewanella baltica os155 at 2.26 a resolution
59	c2q6tB	Alignment	not modelled	12.9	10	PDB header: hydrolase Chain: B: PDB Molecule: dnab replication fork helicase; PDBTitle: crystal structure of the thermus aquaticus dnab monomer
60	d1k28d2	Alignment	not modelled	12.9	36	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
61	d1ht6a2	Alignment	not modelled	12.8	27	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
62	c1yt8A	Alignment	not modelled	12.6	35	PDB header: transferase Chain: A: PDB Molecule: thiosulfate sulfurtransferase; PDBTitle: crystal structure of thiosulfate sulfurtransferase from pseudomonas2 aeruginosa
63	c3fgrA	Alignment	not modelled	12.6	22	PDB header: hydrolase Chain: A: PDB Molecule: putative phospholipase b-like 2 28 kda form; PDBTitle: two chain form of the 66.3 kda protein at 1.8 angstroem
64	d1z84a1	Alignment	not modelled	12.5	26	Fold: HIT-like Superfamily: HIT-like Family: Hexose-1-phosphate uridylyltransferase
65	c3qufB	Alignment	not modelled	12.4	28	PDB header: transport protein Chain: B: PDB Molecule: extracellular solute-binding protein, family 1; PDBTitle: the structure of a family 1 extracellular solute-binding protein from2 bifidobacterium longum subsp. infantis
66	c3iz5G	Alignment	not modelled	12.3	38	PDB header: ribosome Chain: G: PDB Molecule: 60s ribosomal protein l6 (l6e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
67	c1tqmA	Alignment	not modelled	12.3	13	PDB header: ribosome Chain: A: PDB Molecule: conserved hypothetical protein; PDBTitle: crystal structure of a. fulgidus rio2 serine protein kinase bound to2 amppnp
68	d2fp1a1	Alignment	not modelled	12.0	8	Fold: Chorismate mutase II Superfamily: Chorismate mutase II Family: Secreted chorismate mutase-like
69	d2d8da1	Alignment	not modelled	11.9	12	Fold: Chorismate mutase II Superfamily: Chorismate mutase II Family: Dimeric chorismate mutase
70	d1t56a2	Alignment	not modelled	11.9	10	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
71	d3dwyA1	Alignment	not modelled	11.8	9	Fold: Bromodomain-like Superfamily: Bromodomain Family: Bromodomain
72	c2gbbA	Alignment	not modelled	11.7	8	PDB header: isomerase Chain: A: PDB Molecule: putative chorismate mutase; PDBTitle: crystal structure of secreted chorismate mutase from2 yersinia pestis
73	d1ecma	Alignment	not modelled	11.5	9	Fold: Chorismate mutase II Superfamily: Chorismate mutase II Family: Dimeric chorismate mutase
74	c2xvtC	Alignment	not modelled	11.5	15	PDB header: membrane protein Chain: C: PDB Molecule: receptor activity-modifying protein 2; PDBTitle: structure of the extracellular domain of human ramp2
75	d2ok5a4	Alignment	not modelled	11.4	27	Fold: Complement control module/SCR domain Superfamily: Complement control module/SCR domain Family: Complement control module/SCR domain
76	c3olhA	Alignment	not modelled	11.3	22	PDB header: transferase Chain: A: PDB Molecule: 3-mercaptopyruvate sulfurtransferase; PDBTitle: human 3-mercaptopyruvate sulfurtransferase
77	d1j03a	Alignment	not modelled	11.1	23	Fold: Cytochrome b5-like heme/steroid binding domain Superfamily: Cytochrome b5-like heme/steroid binding domain Family: Steroid-binding domain
78	d1nz6a	Alignment	not modelled	11.1	22	Fold: Long alpha-hairpin Superfamily: Chaperone J-domain Family: Chaperone J-domain
79	c2i58B	Alignment	not modelled	11.0	25	PDB header: sugar binding protein Chain: B: PDB Molecule: sugar abc transporter, sugar-binding protein; PDBTitle: crystal structure of rafe from streptococcus pneumoniae complexed with2 raffinose
80	d1cz5a1	Alignment	not modelled	10.9	12	Fold: Double psi beta-barrel Superfamily: ADC-like

					Family: Cdc48 N-terminal domain-like
81	c1x58A_	Alignment	not modelled	10.9	18 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein 4930532d21rik; PDBTitle: solution structures of the myb-like dna binding domain of2 4930532d21rik protein
82	d1y74a1	Alignment	not modelled	10.8	19 Fold: L27 domain Superfamily: L27 domain Family: L27 domain
83	c3r9jD_	Alignment	not modelled	10.7	12 PDB header: cell cycle,hydrolase/cell cycle Chain: D: PDB Molecule: cell division topological specificity factor; PDBTitle: 4.3a resolution structure of a mind-mine(i24n) protein complex
84	d1njha_	Alignment	not modelled	10.7	20 Fold: Hypothetical protein YojF Superfamily: Hypothetical protein YojF Family: Hypothetical protein YojF
85	d1w07a2	Alignment	not modelled	10.7	2 Fold: Bromodomain-like Superfamily: Acyl-CoA dehydrogenase C-terminal domain-like Family: acyl-CoA oxidase C-terminal domains
86	c1qrjB_	Alignment	not modelled	10.7	9 PDB header: viral protein Chain: B: PDB Molecule: htlv-i capsid protein; PDBTitle: solution structure of htlv-i capsid protein
87	c2r5uD_	Alignment	not modelled	10.6	17 PDB header: hydrolase Chain: D: PDB Molecule: replicative dna helicase; PDBTitle: crystal structure of the n-terminal domain of dnab helicase from2 mycobacterium tuberculosis
88	c3kvpB_	Alignment	not modelled	10.6	33 PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein ymzc; PDBTitle: crystal structure of uncharacterized protein ymzc precursor2 from bacillus subtilis, northeast structural genomics3 consortium target sr378a
89	d1f35a_	Alignment	not modelled	10.6	21 Fold: Olfactory marker protein Superfamily: Olfactory marker protein Family: Olfactory marker protein
90	d1wb8a1	Alignment	not modelled	10.5	15 Fold: Long alpha-hairpin Superfamily: Fe,Mn superoxide dismutase (SOD), N-terminal domain Family: Fe,Mn superoxide dismutase (SOD), N-terminal domain
91	c2uvgA_	Alignment	not modelled	10.4	19 PDB header: sugar-binding protein Chain: A: PDB Molecule: abc type periplasmic sugar-binding protein; PDBTitle: structure of a periplasmic oligogalacturonide binding2 protein from yersinia enterocolitica
92	d1hv8a2	Alignment	not modelled	10.4	11 Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
93	d1xr7a_	Alignment	not modelled	10.3	14 Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: RNA-dependent RNA-polymerase
94	d1jwea_	Alignment	not modelled	10.3	13 Fold: N-terminal domain of DnaB helicase Superfamily: N-terminal domain of DnaB helicase Family: N-terminal domain of DnaB helicase
95	d2in1a1	Alignment	not modelled	10.3	33 Fold: UBC-like Superfamily: UBC-like Family: UFC1-like
96	d1ufwa_	Alignment	not modelled	10.1	17 Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: Canonical RBD
97	c3i1lC_	Alignment	not modelled	10.1	25 PDB header: hydrolase Chain: C: PDB Molecule: hemagglutinin-esterase protein; PDBTitle: structure of porcine torovirus hemagglutinin-esterase in complex with2 its receptor
98	c1fi8E_	Alignment	not modelled	9.9	36 PDB header: hydrolase/hydrolase inhibitor Chain: E: PDB Molecule: ecotin; PDBTitle: rat granzyme b [n66q] complexed to ecotin [81-84 iepd]
99	d1ub4c_	Alignment	not modelled	9.9	15 Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/Peml addiction antidote