

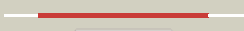




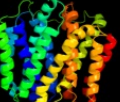

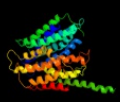
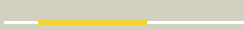




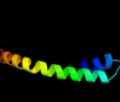








Phyre2


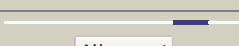
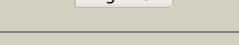

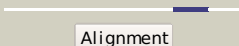
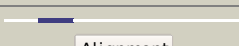

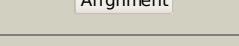




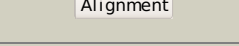
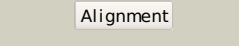
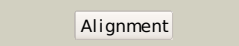

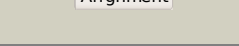


Email	l.a.kelley@imperial.ac.uk
Description	Q46909
Date	Thu Jan 5 12:35:47 GMT 2012
Unique Job ID	2dede16c54dcff1f

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1pw4a_	 Alignment		100.0	12	Fold: MFS general substrate transporter Superfamily: MFS general substrate transporter Family: Glycerol-3-phosphate transporter
2	d1pv7a_	 Alignment		100.0	10	Fold: MFS general substrate transporter Superfamily: MFS general substrate transporter Family: LacY-like proton/sugar symporter
3	c3o7pA_	 Alignment		100.0	15	PDB header: transport protein Chain: A: PDB Molecule: l-fucose-proton symporter; PDBTitle: crystal structure of the e.coli fucose:proton symporter, fucp (n162a)
4	c2gfpA_	 Alignment		99.9	16	PDB header: membrane protein Chain: A: PDB Molecule: multidrug resistance protein d; PDBTitle: structure of the multidrug transporter emrd from2 escherichia coli
5	c2xutC_	 Alignment		99.9	13	PDB header: transport protein Chain: C: PDB Molecule: proton/peptide symporter family protein; PDBTitle: crystal structure of a proton dependent oligopeptide (pot)2 family transporter.
6	c3b9yA_	 Alignment		70.4	10	PDB header: transport protein Chain: A: PDB Molecule: ammonium transporter family rh-like protein; PDBTitle: crystal structure of the nitrosomonas europaea rh protein
7	c3hd6A_	 Alignment		60.8	9	PDB header: membrane protein, transport protein Chain: A: PDB Molecule: ammonium transporter rh type c; PDBTitle: crystal structure of the human rhesus glycoprotein rhcg
8	c3qngD_	 Alignment		52.8	13	PDB header: membrane protein, transport protein Chain: D: PDB Molecule: pts system, cellobiose-specific iic component; PDBTitle: crystal structure of the transporter chbc, the iic component from the2 n,n'-diacetylchitobiose-specific phosphotransferase system
9	c3pvpA_	 Alignment		27.3	21	PDB header: dna binding protein/dna Chain: A: PDB Molecule: chromosomal replication initiator protein dnaa; PDBTitle: structure of mycobacterium tuberculosis dnaa-dbd in complex with box22 dna
10	d1fs1b1	 Alignment		26.9	8	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
11	d1fs2b1	 Alignment		21.1	8	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like

12	c3ff5B_	Alignment		19.9	12	PDB header: protein transport Chain: B: PDB Molecule: peroxisomal biogenesis factor 14; PDBTitle: crystal structure of the conserved n-terminal domain of the2 peroxisomal matrix-protein-import receptor, pex14p
13	c2jlnA_	Alignment		18.0	10	PDB header: membrane protein Chain: A: PDB Molecule: mhp1; PDBTitle: structure of mhp1, a nucleobase-cation-symport-1 family2 transporter
14	c3c9pA_	Alignment		17.3	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein sp1917; PDBTitle: crystal structure of uncharacterized protein sp1917
15	dlj1va_	Alignment		16.8	22	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: Chromosomal replication initiation factor DnaA C-terminal domain IV
16	dlnexa1	Alignment		16.2	0	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
17	c2q9pA_	Alignment		15.0	29	PDB header: antimicrobial protein Chain: A: PDB Molecule: antimicrobial peptide laticin 2a; PDBTitle: nmr structure of a novel antimicrobial peptide, laticin 2a,2 from spider (lachesana tarabaei) venom
18	d2ovra1	Alignment		14.5	8	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
19	c2w85A_	Alignment		13.0	10	PDB header: protein transport Chain: A: PDB Molecule: peroxisomal membrane anchor protein pex14; PDBTitle: structure of pex14 in comex with pex19
20	c3hkzY_	Alignment		13.0	16	PDB header: transferase Chain: Y: PDB Molecule: dna-directed rna polymerase subunit 13; PDBTitle: the x-ray crystal structure of rna polymerase from archaea
21	c2p1nD_	Alignment	not modelled	12.9	15	PDB header: signaling protein Chain: D: PDB Molecule: skp1-like protein 1a; PDBTitle: mechanism of auxin perception by the tir1 ubiquitin ligase
22	dl18qa1	Alignment	not modelled	12.9	7	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: Chromosomal replication initiation factor DnaA C-terminal domain IV
23	c2f9jP_	Alignment	not modelled	11.8	13	PDB header: rna binding protein Chain: P: PDB Molecule: splicing factor 3b subunit 1; PDBTitle: 3.0 angstrom resolution structure of a y22m mutant of the spliceosomal2 protein p14 bound to a region of sf3b155
24	dlxwya1	Alignment	not modelled	9.2	7	Fold: TIM beta/alpha-barrel Superfamily: Metallo-dependent hydrolases Family: TatD Mg-dependent DNase-like
25	dlxpja_	Alignment	not modelled	8.9	11	Fold: HAD-like Superfamily: HAD-like Family: Hypothetical protein VC0232
26	c3hkzZ_	Alignment	not modelled	8.9	16	PDB header: transferase Chain: Z: PDB Molecule: dna-directed rna polymerase subunit 13; PDBTitle: the x-ray crystal structure of rna polymerase from archaea
27	dlymga1	Alignment	not modelled	8.5	2	Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like
28	c1ymgA_	Alignment	not modelled	8.5	2	PDB header: membrane protein Chain: A: PDB Molecule: lens fiber major intrinsic protein; PDBTitle: the channel architecture of aquaporin o at 2.2 angstrom resolution
						PDB header: nuclear protein

29	c3mmyF_	Alignment	not modelled	8.4	14	Chain: F: PDB Molecule: nuclear pore complex protein nup98; PDBTitle: structural and functional analysis of the interaction between the2 nucleoporin nup98 and the mrna export factor rae1
30	c3m91B_	Alignment	not modelled	8.2	25	PDB header: hydrolase regulator Chain: B: PDB Molecule: prokaryotic ubiquitin-like protein pup; PDBTitle: crystal structure of the prokaryotic ubiquitin-like protein (pup)2 complexed with the amino terminal coiled coil of the mycobacterium3 tuberculosis proteasomal atpase mpa
31	d1xeqa1	Alignment	not modelled	8.2	40	Fold: S15/NS1 RNA-binding domain Superfamily: S15/NS1 RNA-binding domain Family: N-terminal, RNA-binding domain of nonstructural protein NS1
32	c2vpzG_	Alignment	not modelled	7.9	19	PDB header: oxidoreductase Chain: G: PDB Molecule: hypothetical membrane spanning protein; PDBTitle: polysulfide reductase native structure
33	c2y0sj_	Alignment	not modelled	7.7	11	PDB header: transferase Chain: J: PDB Molecule: rna polymerase subunit 13; PDBTitle: crystal structure of sulfolobus shibatae rna polymerase in2 p21 space group
34	c2y0sQ_	Alignment	not modelled	7.7	11	PDB header: transferase Chain: Q: PDB Molecule: rna polymerase subunit 13; PDBTitle: crystal structure of sulfolobus shibatae rna polymerase in2 p21 space group
35	c3r66A_	Alignment	not modelled	7.7	40	PDB header: viral protein/antiviral protein Chain: A: PDB Molecule: non-structural protein 1; PDBTitle: crystal structure of human isg15 in complex with ns1 n-terminal region2 from influenza virus b, northeast structural genomics consortium3 target ids hx6481, hr2873, and or2
36	d2a1la1	Alignment	not modelled	7.6	7	Fold: TBP-like Superfamily: Bet v1-like Family: Phosphatidylinositol transfer protein, PITP
37	d1rsob_	Alignment	not modelled	7.5	13	Fold: L27 domain Superfamily: L27 domain Family: L27 domain
38	c3m9dl_	Alignment	not modelled	7.2	20	PDB header: chaperone Chain: I: PDB Molecule: prokaryotic ubiquitin-like protein pup; PDBTitle: crystal structure of the prokaryotic ubiquitin-like protein pup2 complexed with the hexameric proteasomal atpase mpa which includes3 the amino terminal coiled coil domain and the inter domain
39	c1egpA_	Alignment	not modelled	7.1	20	PDB header: proteinase inhibitor Chain: A: PDB Molecule: eglin-c; PDBTitle: proteinase inhibitor eglin c with hydrolysed reactive center
40	c2l16A_	Alignment	not modelled	7.1	11	PDB header: protein transport Chain: A: PDB Molecule: sec-independent protein translocase protein tatad; PDBTitle: solution structure of bacillus subtilis tatad protein in dpc micelles
41	c2waqQ_	Alignment	not modelled	7.0	11	PDB header: transcription Chain: Q: PDB Molecule: dna-directed rna polymerase rpo13 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-2 directed rna polymerase
42	c2rddb_	Alignment	not modelled	6.8	6	PDB header: membrane protein/transport protein Chain: B: PDB Molecule: upf0092 membrane protein yajc; PDBTitle: x-ray crystal structure of acrb in complex with a novel2 transmembrane helix.
43	d1f15a_	Alignment	not modelled	6.7	17	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Bromoviridae-like VP
44	d2p7vb1	Alignment	not modelled	6.7	6	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
45	c1cirA_	Alignment	not modelled	6.7	17	PDB header: serine protease inhibitor Chain: A: PDB Molecule: chymotrypsin inhibitor 2; PDBTitle: complex of two fragments of ci2 [(1-40)(dot)(41-64)]
46	d1j4na_	Alignment	not modelled	6.6	6	Fold: Aquaporin-like Superfamily: Aquaporin-like Family: Aquaporin-like
47	d1t27a_	Alignment	not modelled	6.6	7	Fold: TBP-like Superfamily: Bet v1-like Family: Phosphatidylinositol transfer protein, PITP
48	d1ofcx1	Alignment	not modelled	6.6	0	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Myb/SANT domain
49	c2diiA_	Alignment	not modelled	6.6	5	PDB header: transcription Chain: A: PDB Molecule: tfiih basal transcription factor complex p62 PDBTitle: solution structure of the bsd domain of human tfiih basal2 transcription factor complex p62 subunit
50	c1nexC_	Alignment	not modelled	6.5	0	PDB header: ligase, cell cycle Chain: C: PDB Molecule: centromere dna-binding protein complex cbf3 PDBTitle: crystal structure of scskp1-sccd4-cpd peptide complex
51	d1xjsa_	Alignment	not modelled	6.5	7	Fold: SufE/NifU Superfamily: SufE/NifU Family: NifU/IscU domain
52	c1dgrW_	Alignment	not modelled	6.5	6	PDB header: plant protein Chain: W: PDB Molecule: canavalin; PDBTitle: refined crystal structure of canavalin from jack bean
53	d2j85a1	Alignment	not modelled	6.4	15	Fold: STIV B116-like Superfamily: STIV B116-like Family: STIV B116-like

54	c3gg7A		Alignment	not modelled	6.4	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized metalloprotein; PDBTitle: crystal structure of an uncharacterized metalloprotein from2 deinococcus radiodurans
55	d2ppxa1		Alignment	not modelled	6.4	4	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
56	c2ppxA		Alignment	not modelled	6.4	4	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1735; PDBTitle: crystal structure of a hth xre-family like protein from agrobacterium2 tumefaciens
57	c2kz6A		Alignment	not modelled	6.3	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of protein cv0426 from chromobacterium violaceum,2 northeast structural genomics consortium (nesg) target cvt2
58	d2ocda1		Alignment	not modelled	6.3	5	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
59	d1jmx1		Alignment	not modelled	6.2	8	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
60	d2diia1		Alignment	not modelled	6.2	5	Fold: BSD domain-like Superfamily: BSD domain-like Family: BSD domain
61	d1j6oa		Alignment	not modelled	6.1	7	Fold: TIM beta/alpha-barrel Superfamily: Metallo-dependent hydrolases Family: TatD Mg-dependent DNase-like
62	c3h00A		Alignment	not modelled	6.1	20	PDB header: viral protein Chain: A: PDB Molecule: envelope glycoprotein gp160; PDBTitle: structure of the c-terminal domain of a putative hiv-1 gp412 fusion intermediate
63	c2kdcC		Alignment	not modelled	5.8	11	PDB header: transferase Chain: C: PDB Molecule: diacylglycerol kinase; PDBTitle: nmr solution structure of e. coli diacylglycerol kinase2 (dagk) in dpc micelles
64	c2wb1Q		Alignment	not modelled	5.6	11	PDB header: transcription Chain: Q: PDB Molecule: dna-directed rna polymerase rpo13 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-2 directed rna polymerase
65	c3bs3A		Alignment	not modelled	5.6	17	PDB header: dna binding protein Chain: A: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of a putative dna-binding protein from bacteroides2 fragilis
66	d1agxa		Alignment	not modelled	5.6	20	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
67	d1pbya1		Alignment	not modelled	5.5	8	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
68	c3rkoK		Alignment	not modelled	5.4	14	PDB header: oxidoreductase Chain: K: PDB Molecule: nadh-quinone oxidoreductase subunit k; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
69	c2wwbA		Alignment	not modelled	5.4	11	PDB header: ribosome Chain: A: PDB Molecule: protein transport protein sec61 subunit alpha isoform 1; PDBTitle: cryo-em structure of the mammalian sec61 complex bound to the2 actively translating wheat germ 80s ribosome
70	c2ci2I		Alignment	not modelled	5.3	17	PDB header: proteinase inhibitor (chymotrypsin) Chain: I: PDB Molecule: chymotrypsin inhibitor 2; PDBTitle: crystal and molecular structure of the serine proteinase2 inhibitor ci-2 from barley seeds
71	d1vola2		Alignment	not modelled	5.2	6	Fold: Cyclin-like Superfamily: Cyclin-like Family: Transcription factor IIB (TFIIB), core domain
72	c2wb1J		Alignment	not modelled	5.2	11	PDB header: transcription Chain: J: PDB Molecule: dna-directed rna polymerase rpo13 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-2 directed rna polymerase
73	d1zzma1		Alignment	not modelled	5.2	11	Fold: TIM beta/alpha-barrel Superfamily: Metallo-dependent hydrolases Family: TatD Mg-dependent DNase-like
74	d1to2i		Alignment	not modelled	5.1	17	Fold: CI-2 family of serine protease inhibitors Superfamily: CI-2 family of serine protease inhibitors Family: CI-2 family of serine protease inhibitors
75	d1csei		Alignment	not modelled	5.1	17	Fold: CI-2 family of serine protease inhibitors Superfamily: CI-2 family of serine protease inhibitors Family: CI-2 family of serine protease inhibitors
76	d1ypci		Alignment	not modelled	5.1	21	Fold: CI-2 family of serine protease inhibitors Superfamily: CI-2 family of serine protease inhibitors Family: CI-2 family of serine protease inhibitors