



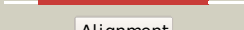
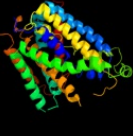
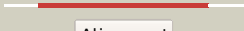
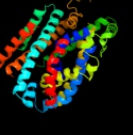

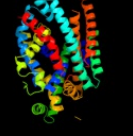






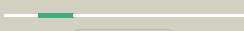












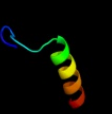



# Phyre2

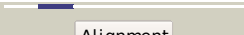
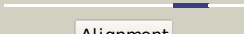
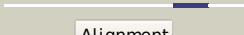

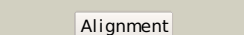
Email	I.a.kelley@imperial.ac.uk
Description	P30143
Date	Thu Jan 5 11:46:07 GMT 2012
Unique Job ID	ad74ab9e09d57c49

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c3giaA_</a>	 Alignment		99.9	12	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein mj0609; <b>PDBTitle:</b> crystal structure of apct transporter
2	<a href="#">c2jlnA_</a>	 Alignment		99.8	8	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> mhp1; <b>PDBTitle:</b> structure of mhp1, a nucleobase-cation-symport-1 family2 transporter
3	<a href="#">c3lrcC_</a>	 Alignment		99.6	15	<b>PDB header:</b> transport protein <b>Chain:</b> C: <b>PDB Molecule:</b> arginine/agmatine antiporter; <b>PDBTitle:</b> structure of e. coli adic (p1)
4	<a href="#">c3dh4A_</a>	 Alignment		99.0	10	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sodium/glucose cotransporter; <b>PDBTitle:</b> crystal structure of sodium/sugar symporter with bound galactose from2 vibrio parahaemolyticus
5	<a href="#">c2xq2A_</a>	 Alignment		99.0	11	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sodium/glucose cotransporter; <b>PDBTitle:</b> structure of the k294a mutant of vs9lt
6	<a href="#">d2a65a1</a>	 Alignment		98.7	15	<b>Fold:</b> SNF-like <b>Superfamily:</b> SNF-like <b>Family:</b> SNF-like
7	<a href="#">c2w8aC_</a>	 Alignment		96.0	14	<b>PDB header:</b> membrane protein <b>Chain:</b> C: <b>PDB Molecule:</b> glycine betaine transporter betp; <b>PDBTitle:</b> crystal structure of the sodium-coupled glycine betaine2 symporter betp from corynebacterium glutamicum with bound3 substrate
8	<a href="#">c3hfxA_</a>	 Alignment		94.9	11	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> l-carnitine/gamma-butyrobetaine antiporter; <b>PDBTitle:</b> crystal structure of carnitine transporter
9	<a href="#">d1c8za_</a>	 Alignment		48.2	23	<b>Fold:</b> Tubby C-terminal domain-like <b>Superfamily:</b> Tubby C-terminal domain-like <b>Family:</b> Transcriptional factor tubby, C-terminal domain
10	<a href="#">c2h2wA_</a>	 Alignment		30.8	14	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> homoserine o-succinyltransferase; <b>PDBTitle:</b> crystal structure of homoserine o-succinyltransferase (ec 2.3.1.46)2 (homoserine o-transsuccinylase) (hts) (tm0881) from thermotoga3 maritima at 2.52 a resolution
11	<a href="#">d2ghra1</a>	 Alignment		28.3	17	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> Class I glutamine amidotransferase-like <b>Family:</b> HTS-like

12	<a href="#">d1ml8a_</a>	Alignment		26.9	0	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> YhfA-like
13	<a href="#">d1vlaa_</a>	Alignment		22.7	14	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> YhfA-like
14	<a href="#">d1htjf_</a>	Alignment		22.4	19	<b>Fold:</b> Regulator of G-protein signaling, RGS <b>Superfamily:</b> Regulator of G-protein signaling, RGS <b>Family:</b> Regulator of G-protein signaling, RGS
15	<a href="#">c1htjF_</a>	Alignment		22.4	19	<b>PDB header:</b> signaling protein <b>Chain:</b> F: <b>PDB Molecule:</b> kiaa0380; <b>PDBTitle:</b> structure of the rgs-like domain from pdz-rhogef
16	<a href="#">c2kncB_</a>	Alignment		19.2	13	<b>PDB header:</b> cell adhesion <b>Chain:</b> B: <b>PDB Molecule:</b> integrin beta-3; <b>PDBTitle:</b> platelet integrin alfaiib-beta3 transmembrane-cytoplasmic2 heterocomplex
17	<a href="#">d2hxva2</a>	Alignment		18.4	10	<b>Fold:</b> Cytidine deaminase-like <b>Superfamily:</b> Cytidine deaminase-like <b>Family:</b> Deoxycytidylate deaminase-like
18	<a href="#">d1fftb2</a>	Alignment		17.5	8	<b>Fold:</b> Transmembrane helix hairpin <b>Superfamily:</b> Cytochrome c oxidase subunit II-like, transmembrane region <b>Family:</b> Cytochrome c oxidase subunit II-like, transmembrane region
19	<a href="#">c1lqlE_</a>	Alignment		16.8	22	<b>PDB header:</b> unknown function <b>Chain:</b> E: <b>PDB Molecule:</b> osmotical inducible protein c like family; <b>PDBTitle:</b> crystal structure of osmc like protein from mycoplasma2 pneumoniae
20	<a href="#">d1lqla_</a>	Alignment		16.8	22	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
21	<a href="#">c2lkgA_</a>	Alignment	not modelled	16.8	25	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> acetylcholine receptor; <b>PDBTitle:</b> wsa major conformation
22	<a href="#">c2k21A_</a>	Alignment	not modelled	16.6	18	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> potassium voltage-gated channel subfamily e <b>PDBTitle:</b> nmr structure of human kcne1 in Impg micelles at ph 6.0 and2 40 degree c
23	<a href="#">d1z3aa1</a>	Alignment	not modelled	15.4	23	<b>Fold:</b> Cytidine deaminase-like <b>Superfamily:</b> Cytidine deaminase-like <b>Family:</b> Deoxycytidylate deaminase-like
24	<a href="#">d1qwia_</a>	Alignment	not modelled	15.3	14	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
25	<a href="#">c2egtA_</a>	Alignment	not modelled	14.6	23	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical protein aq_1549; <b>PDBTitle:</b> crystal structure of hypothetical protein (aq1549) from aquifex2 aeolicus
26	<a href="#">d2pn2a1</a>	Alignment	not modelled	13.5	20	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
27	<a href="#">d2b3ja1</a>	Alignment	not modelled	12.9	11	<b>Fold:</b> Cytidine deaminase-like <b>Superfamily:</b> Cytidine deaminase-like <b>Family:</b> Deoxycytidylate deaminase-like
28	<a href="#">c2be6F_</a>	Alignment	not modelled	12.3	19	<b>PDB header:</b> membrane protein <b>Chain:</b> F: <b>PDB Molecule:</b> voltage-dependent l-type calcium channel alpha-1c subunit; <b>PDBTitle:</b> 2.0 a crystal structure of the cav1.2 iq domain-ca/cam complex

29	<a href="#">c2bjoA_</a>		Alignment	not modelled	11.5	23	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> organic hydroperoxide resistance protein ohrb; <b>PDBTitle:</b> crystal structure of the organic hydroperoxide resistance2 protein ohrb of bacillus subtilis
30	<a href="#">c3m4wH_</a>		Alignment	not modelled	10.6	44	<b>PDB header:</b> signaling protein/signaling protein <b>Chain:</b> H: <b>PDB Molecule:</b> sigma-e factor negative regulatory protein; <b>PDBTitle:</b> structural basis for the negative regulation of bacterial stress2 response by rseb
31	<a href="#">c1shzF_</a>		Alignment	not modelled	8.7	15	<b>PDB header:</b> signaling protein <b>Chain:</b> F: <b>PDB Molecule:</b> rho guanine nucleotide exchange factor 1; <b>PDBTitle:</b> crystal structure of the p115rhogef rrgs domain in a2 complex with galpha(13):galpha(i1) chimera
32	<a href="#">c3eerA_</a>		Alignment	not modelled	8.4	14	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> organic hydroperoxide resistance protein, putative; <b>PDBTitle:</b> high resolution structure of putative organic hydroperoxide resistance2 protein from vibrio cholerae o1 biovar eltor str. n16961
33	<a href="#">d2b3za2</a>		Alignment	not modelled	8.2	15	<b>Fold:</b> Cytidine deaminase-like <b>Superfamily:</b> Cytidine deaminase-like <b>Family:</b> Deoxycytidylate deaminase-like
34	<a href="#">d2onfa1</a>		Alignment	not modelled	8.1	17	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
35	<a href="#">c2kncA_</a>		Alignment	not modelled	7.9	12	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> integrin alpha-iiib; <b>PDBTitle:</b> platelet integrin alfa-iib-beta3 transmembrane-cytoplasmic2 heterocomplex
36	<a href="#">d2opla1</a>		Alignment	not modelled	7.7	13	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
37	<a href="#">c2latA_</a>		Alignment	not modelled	7.4	19	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> dolichyl-diphosphooligosaccharide--protein <b>PDBTitle:</b> solution structure of a human minimembrane protein ost4
38	<a href="#">d2d7va1</a>		Alignment	not modelled	7.4	4	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins
39	<a href="#">c2pjwH_</a>		Alignment	not modelled	7.0	24	<b>PDB header:</b> endocytosis/exocytosis <b>Chain:</b> H: <b>PDB Molecule:</b> uncharacterized protein yhl002w; <b>PDBTitle:</b> the vps27/hse1 complex is a gat domain-based scaffold for2 ubiquitin-dependent sorting
40	<a href="#">d2fika2</a>		Alignment	not modelled	6.9	20	<b>Fold:</b> MHC antigen-recognition domain <b>Superfamily:</b> MHC antigen-recognition domain <b>Family:</b> MHC antigen-recognition domain
41	<a href="#">c1k8vA_</a>		Alignment	not modelled	6.9	45	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> neuropeptide f; <b>PDBTitle:</b> the nmr-derived conformation of neuropeptide f from2 moniezia expansa
42	<a href="#">d2o34a1</a>		Alignment	not modelled	6.8	16	<b>Fold:</b> T-fold <b>Superfamily:</b> ApbE-like <b>Family:</b> DVU1097-like
43	<a href="#">c1lflA_</a>		Alignment	not modelled	6.6	16	<b>PDB header:</b> virus <b>Chain:</b> A: <b>PDB Molecule:</b> inovirus; <b>PDBTitle:</b> molecular models and structural comparisons of native and2 mutant class i filamentous bacteriophages ff (fd, f1, m13),3 if1 and ike
44	<a href="#">c2ql8A_</a>		Alignment	not modelled	6.6	22	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> putative redox protein; <b>PDBTitle:</b> crystal structure of a putative redox protein (lsei_0423) from2 lactobacillus casei atcc 334 at 1.50 a resolution
45	<a href="#">c2qy6A_</a>		Alignment	not modelled	6.4	14	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> upf0209 protein yfck; <b>PDBTitle:</b> crystal structure of the n-terminal domain of upf0209 protein yfck2 from escherichia coli o157:h7
46	<a href="#">c2klua_</a>		Alignment	not modelled	6.3	30	<b>PDB header:</b> immune system, membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> t-cell surface glycoprotein cd4; <b>PDBTitle:</b> nmr structure of the transmembrane and cytoplasmic domains2 of human cd4
47	<a href="#">c3mk7F_</a>		Alignment	not modelled	6.1	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> F: <b>PDB Molecule:</b> cytochrome c oxidase, cbb3-type, subunit p; <b>PDBTitle:</b> the structure of cbb3 cytochrome oxidase
48	<a href="#">c3cjeA_</a>		Alignment	not modelled	6.1	9	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> osmc-like protein; <b>PDBTitle:</b> crystal structure of an osmc-like hydroperoxide resistance protein2 (jann_2040) from jannaschia sp. ccs1 at 1.70 a resolution
49	<a href="#">d1p6oa_</a>		Alignment	not modelled	6.1	11	<b>Fold:</b> Cytidine deaminase-like <b>Superfamily:</b> Cytidine deaminase-like <b>Family:</b> Deoxycytidylate deaminase-like
50	<a href="#">dliapa_</a>		Alignment	not modelled	6.0	13	<b>Fold:</b> Regulator of G-protein signaling, RGS <b>Superfamily:</b> Regulator of G-protein signaling, RGS <b>Family:</b> Regulator of G-protein signaling, RGS
51	<a href="#">c3lm3A_</a>		Alignment	not modelled	5.9	28	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of a putative glycoside hydrolase/deacetylase2 (bdi_3119) from parabacteroides distasonis at 1.44 a resolution
52	<a href="#">d1uspa_</a>		Alignment	not modelled	5.8	18	<b>Fold:</b> OsmC-like <b>Superfamily:</b> OsmC-like <b>Family:</b> Ohr/OsmC resistance proteins

53	<a href="#">d2a6aa1</a>	 Alignment	not modelled	5.8	18	<b>Fold:</b> Ribonuclease H-like motif <b>Superfamily:</b> Actin-like ATPase domain <b>Family:</b> YeaZ-like
54	<a href="#">c2nx8A</a>	 Alignment	not modelled	5.8	26	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> trna-specific adenosine deaminase; <b>PDBTitle:</b> the crystal structure of the trna-specific adenosine deaminase from2 streptococcus pyogenes
55	<a href="#">d2po6a2</a>	 Alignment	not modelled	5.4	15	<b>Fold:</b> MHC antigen-recognition domain <b>Superfamily:</b> MHC antigen-recognition domain <b>Family:</b> MHC antigen-recognition domain
56	<a href="#">d1onqa2</a>	 Alignment	not modelled	5.3	15	<b>Fold:</b> MHC antigen-recognition domain <b>Superfamily:</b> MHC antigen-recognition domain <b>Family:</b> MHC antigen-recognition domain
57	<a href="#">c2x58B</a>	 Alignment	not modelled	5.2	42	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> peroxisomal bifunctional enzyme; <b>PDBTitle:</b> the crystal structure of mfe1 liganded with coa