


















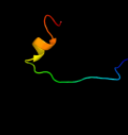


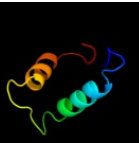

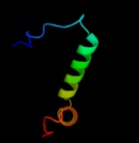





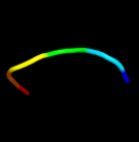



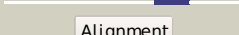




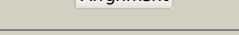
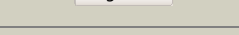

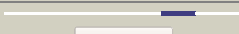


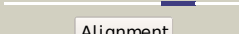



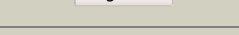
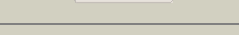
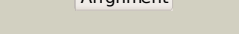


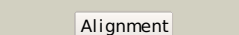



# Phyre2

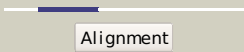
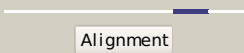
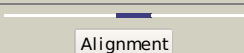



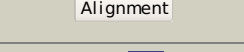
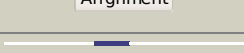

Email	l.a.kelley@imperial.ac.uk
Description	Q47013
Date	Thu Jan 5 12:36:09 GMT 2012
Unique Job ID	b31bfff916f3524d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">d1euva_</a>	 Alignment		97.9	19	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
2	<a href="#">d2g4da1</a>	 Alignment		97.6	19	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
3	<a href="#">d2bkra1</a>	 Alignment		97.5	18	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
4	<a href="#">c2oixa_</a>	 Alignment		97.3	15	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> xanthomonas outer protein d; <b>PDBTitle:</b> xanthomonas xopd c470a mutant
5	<a href="#">c3eayA_</a>	 Alignment		97.2	13	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> sentrin-specific protease 7; <b>PDBTitle:</b> crystal structure of the human senp7 catalytic domain
6	<a href="#">d1th0a_</a>	 Alignment		97.0	18	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
7	<a href="#">d2iy1a1</a>	 Alignment		96.8	18	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
8	<a href="#">d1nlna_</a>	 Alignment		68.5	26	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Adenain-like
9	<a href="#">d1xd3a_</a>	 Alignment		58.4	16	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Ubiquitin carboxyl-terminal hydrolase UCH-L
10	<a href="#">d2cpqa1</a>	 Alignment		56.6	38	<b>Fold:</b> Eukaryotic type KH-domain (KH-domain type I) <b>Superfamily:</b> Eukaryotic type KH-domain (KH-domain type I) <b>Family:</b> Eukaryotic type KH-domain (KH-domain type I)
11	<a href="#">d2etla1</a>	 Alignment		55.7	18	<b>Fold:</b> Cysteine proteinases <b>Superfamily:</b> Cysteine proteinases <b>Family:</b> Ubiquitin carboxyl-terminal hydrolase UCH-L

12	<a href="#">c2wdtA_</a>	Alignment		46.9	22	<b>PDB header:</b> hydrolase/protein binding <b>Chain:</b> A: <b>PDB Molecule:</b> ubiquitin carboxyl-terminal hydrolase I3; <b>PDBTitle:</b> crystal structure of plasmodium falciparum uch13 in complex2 with the suicide inhibitor ubvme
13	<a href="#">c3a7sA_</a>	Alignment		24.6	12	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> ubiquitin carboxyl-terminal hydrolase isozyme I5; <b>PDBTitle:</b> catalytic domain of uch37
14	<a href="#">c3mstA_</a>	Alignment		17.5	23	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> putative nitrate transport protein; <b>PDBTitle:</b> crystal structure of a putative nitrate transport protein (tn0104)2 from thermoplasma volcanium at 1.35 a resolution
15	<a href="#">c3ihrA_</a>	Alignment		15.9	14	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> ubiquitin carboxyl-terminal hydrolase isozyme I5; <b>PDBTitle:</b> crystal structure of uch37
16	<a href="#">d1cjaa_</a>	Alignment		15.0	15	<b>Fold:</b> Protein kinase-like (PK-like) <b>Superfamily:</b> Protein kinase-like (PK-like) <b>Family:</b> Actin-fragmin kinase, catalytic domain
17	<a href="#">c3zrhA_</a>	Alignment		13.8	23	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> ubiquitin thioesterase zranb1; <b>PDBTitle:</b> crystal structure of the lys29, lys33-linkage-specific traid otu2 deubiquitinase domain reveals an ankyrin-repeat ubiquitin binding3 domain (ankubd)
18	<a href="#">c3dcyA_</a>	Alignment		13.4	17	<b>PDB header:</b> apoptosis regulator <b>Chain:</b> A: <b>PDB Molecule:</b> regulator protein; <b>PDBTitle:</b> crystal structure a tp53-induced glycolysis and apoptosis2 regulator protein from homo sapiens.
19	<a href="#">c2qqpD_</a>	Alignment		13.0	27	<b>PDB header:</b> virus <b>Chain:</b> D: <b>PDB Molecule:</b> small capsid protein; <b>PDBTitle:</b> crystal structure of authentic providence virus
20	<a href="#">c2of6C_</a>	Alignment		10.7	50	<b>PDB header:</b> virus <b>Chain:</b> C: <b>PDB Molecule:</b> envelope glycoprotein e; <b>PDBTitle:</b> structure of immature west nile virus
21	<a href="#">d1s2xa_</a>	Alignment	not modelled	10.7	47	<b>Fold:</b> STAT-like <b>Superfamily:</b> Cag-Z <b>Family:</b> Cag-Z
22	<a href="#">c1s2xA_</a>	Alignment	not modelled	10.7	47	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> cag-z; <b>PDBTitle:</b> crystal structure of cag-z from helicobacter pylori
23	<a href="#">d1z21a1</a>	Alignment	not modelled	10.6	21	<b>Fold:</b> Type III secretion system domain <b>Superfamily:</b> Type III secretion system domain <b>Family:</b> YopR Core
24	<a href="#">c2i3eA_</a>	Alignment	not modelled	10.3	20	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> g-rich; <b>PDBTitle:</b> solution structure of catalytic domain of goldfish rich2 protein
25	<a href="#">d1aina_</a>	Alignment	not modelled	10.0	23	<b>Fold:</b> Annexin <b>Superfamily:</b> Annexin <b>Family:</b> Annexin
26	<a href="#">c1uzgA_</a>	Alignment	not modelled	9.9	50	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> major envelope protein e; <b>PDBTitle:</b> crystal structure of the dengue type 3 virus envelope2 protein
27	<a href="#">d1u7za_</a>	Alignment	not modelled	9.9	15	<b>Fold:</b> Ribokinas-like <b>Superfamily:</b> CoaB-like <b>Family:</b> CoaB-like
28	<a href="#">c2ka2A_</a>	Alignment	not modelled	9.8	43	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> bcl2/adenovirus e1b 19 kda protein-interacting <b>PDBTitle:</b> solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles with his173-ser172 intermonomer3 hydrogen bond restraints

29	<a href="#">c2ka1B</a>		not modelled	9.8	43	<b>PDB header:</b> membrane protein <b>Chain:</b> B: <b>PDB Molecule:</b> bcl2/adenovirus e1b 19 kda protein-interacting <b>PDBTitle:</b> solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles
30	<a href="#">dlzrua3</a>		not modelled	9.7	27	<b>Fold:</b> Pseudo beta-prism <b>Superfamily:</b> Bacteriophage trimeric proteins domain <b>Family:</b> Lactophage receptor-binding protein N-terminal domain
31	<a href="#">c2ka2B</a>		not modelled	9.3	43	<b>PDB header:</b> membrane protein <b>Chain:</b> B: <b>PDB Molecule:</b> bcl2/adenovirus e1b 19 kda protein-interacting <b>PDBTitle:</b> solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles with his173-ser172 intermonomer3 hydrogen bond restraints
32	<a href="#">c2ka1A</a>		not modelled	9.3	43	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> bcl2/adenovirus e1b 19 kda protein-interacting <b>PDBTitle:</b> solution nmr structure of bnip3 transmembrane peptide dimer2 in detergent micelles
33	<a href="#">d2arha1</a>		not modelled	9.1	41	<b>Fold:</b> Acyl-CoA N-acyltransferases (Nat) <b>Superfamily:</b> Acyl-CoA N-acyltransferases (Nat) <b>Family:</b> Aq 1966-like
34	<a href="#">dlsvba2</a>		not modelled	9.0	50	<b>Fold:</b> Viral glycoprotein, central and dimerisation domains <b>Superfamily:</b> Viral glycoprotein, central and dimerisation domains <b>Family:</b> Viral glycoprotein, central and dimerisation domains
35	<a href="#">c3lcnC</a>		not modelled	8.8	46	<b>PDB header:</b> nuclear protein <b>Chain:</b> C: <b>PDB Molecule:</b> mrna transport factor gfd1; <b>PDBTitle:</b> nab2:gfd1 complex
36	<a href="#">c3lcnD</a>		not modelled	8.5	46	<b>PDB header:</b> nuclear protein <b>Chain:</b> D: <b>PDB Molecule:</b> mrna transport factor gfd1; <b>PDBTitle:</b> nab2:gfd1 complex
37	<a href="#">dljsja2</a>		not modelled	8.3	28	<b>Fold:</b> The "swivelling" beta/beta/alpha domain <b>Superfamily:</b> GroEL apical domain-like <b>Family:</b> GroEL-like chaperone, apical domain
38	<a href="#">c2f9jP</a>		not modelled	8.2	27	<b>PDB header:</b> rna binding protein <b>Chain:</b> P: <b>PDB Molecule:</b> splicing factor 3b subunit 1; <b>PDBTitle:</b> 3.0 angstrom resolution structure of a y22m mutant of the spliceosomal2 protein p14 bound to a region of sf3b155
39	<a href="#">dl0k8a2</a>		not modelled	8.2	50	<b>Fold:</b> Viral glycoprotein, central and dimerisation domains <b>Superfamily:</b> Viral glycoprotein, central and dimerisation domains <b>Family:</b> Viral glycoprotein, central and dimerisation domains
40	<a href="#">c2j5dA</a>		not modelled	7.9	50	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> bcl2/adenovirus e1b 19 kda protein-interacting <b>PDBTitle:</b> nmr structure of bnip3 transmembrane domain in lipid2 bicelles
41	<a href="#">c1p58C</a>		not modelled	7.8	50	<b>PDB header:</b> virus <b>Chain:</b> C: <b>PDB Molecule:</b> major envelope protein e; <b>PDBTitle:</b> complex organization of dengue virus membrane proteins as revealed by2 9.5 angstrom cryo-em reconstruction
42	<a href="#">c3uajA</a>		not modelled	7.8	50	<b>PDB header:</b> viral protein/immune system <b>Chain:</b> A: <b>PDB Molecule:</b> envelope protein; <b>PDBTitle:</b> crystal structure of the envelope glycoprotein ectodomain from dengue2 virus serotype 4 in complex with the fab fragment of the chimpanzee3 monoclonal antibody 5h2
43	<a href="#">dlf74a</a>		not modelled	7.7	21	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> Aldolase <b>Family:</b> Class I aldolase
44	<a href="#">clurzC</a>		not modelled	7.7	50	<b>PDB header:</b> virus/viral protein <b>Chain:</b> C: <b>PDB Molecule:</b> envelope protein; <b>PDBTitle:</b> low ph induced, membrane fusion conformation of the2 envelope protein of tick-borne encephalitis virus
45	<a href="#">dl022a</a>		not modelled	7.3	70	<b>Fold:</b> Hypothetical protein TM0875 <b>Superfamily:</b> Hypothetical protein TM0875 <b>Family:</b> Hypothetical protein TM0875
46	<a href="#">dlufwa</a>		not modelled	7.1	23	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> RNA-binding domain, RBD <b>Family:</b> Canonical RBD
47	<a href="#">dlrmka</a>		not modelled	6.8	83	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> omega toxin-like <b>Family:</b> Conotoxin
48	<a href="#">c3dxeC</a>		not modelled	6.7	24	<b>PDB header:</b> protein binding <b>Chain:</b> C: <b>PDB Molecule:</b> amyloid beta a4 protein-binding family b member <b>PDBTitle:</b> crystal structure of the intracellular domain of human app2 (t668a mutant) in complex with fe65-ptb2
49	<a href="#">c3c6dB</a>		not modelled	6.6	50	<b>PDB header:</b> virus <b>Chain:</b> B: <b>PDB Molecule:</b> polyprotein; <b>PDBTitle:</b> the pseudo-atomic structure of dengue immature virus
50	<a href="#">c3siiA</a>		not modelled	6.5	35	<b>PDB header:</b> hydrolase/hydrolase inhibitor <b>Chain:</b> A: <b>PDB Molecule:</b> poly(adp-ribose) glycohydrolase; <b>PDBTitle:</b> the x-ray crystal structure of poly(adp-ribose) glycohydrolase bound2 to the inhibitor adp-hpd from thermomonospora curvata
51	<a href="#">c3ogzA</a>		not modelled	6.1	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> udp-sugar pyrophosphorylase; <b>PDBTitle:</b> protein structure of usp from l. major in apo-form
52	<a href="#">dl1dm5a</a>		not modelled	6.1	23	<b>Fold:</b> Annexin <b>Superfamily:</b> Annexin <b>Family:</b> Annexin
53	<a href="#">dl1srva</a>		not modelled	5.9	31	<b>Fold:</b> The "swivelling" beta/beta/alpha domain <b>Superfamily:</b> GroEL apical domain-like <b>Family:</b> GroEL-like chaperone, apical domain

54	<a href="#">d2ptza1</a>	 Alignment	not modelled	5.8	16	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> Enolase C-terminal domain-like <b>Family:</b> Enolase
55	<a href="#">c1bmxA</a>	 Alignment	not modelled	5.8	32	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> human immunodeficiency virus type 1 capsid; <b>PDBTitle:</b> hiv-1 capsid protein major homology region peptide analog,2 nmr, 8 structures
56	<a href="#">d1vlva1</a>	 Alignment	not modelled	5.7	15	<b>Fold:</b> Elongation factor/aminomethyltransferase common domain <b>Superfamily:</b> Aminomethyltransferase beta-barrel domain <b>Family:</b> Aminomethyltransferase beta-barrel domain
57	<a href="#">c2vc6A</a>	 Alignment	not modelled	5.4	22	<b>PDB header:</b> lyase <b>Chain:</b> A: <b>PDB Molecule:</b> dihydrodipicolinate synthase; <b>PDBTitle:</b> structure of mosa from s. meliloti with pyruvate bound
58	<a href="#">d1sx5a</a>	 Alignment	not modelled	5.3	21	<b>Fold:</b> Restriction endonuclease-like <b>Superfamily:</b> Restriction endonuclease-like <b>Family:</b> Restriction endonuclease EcoRV
59	<a href="#">c1gp8A</a>	 Alignment	not modelled	5.2	13	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein (scaffolding protein); <b>PDBTitle:</b> nmr solution structure of the coat protein-binding domain2 of bacteriophage p22 scaffolding protein
60	<a href="#">d1t6t1</a>	 Alignment	not modelled	5.2	8	<b>Fold:</b> Toprim domain <b>Superfamily:</b> Toprim domain <b>Family:</b> Toprim domain
61	<a href="#">d1k8ga2</a>	 Alignment	not modelled	5.2	23	<b>Fold:</b> OB-fold <b>Superfamily:</b> Nucleic acid-binding proteins <b>Family:</b> Single strand DNA-binding domain, SSB
62	<a href="#">c1w9zB</a>	 Alignment	not modelled	5.1	35	<b>PDB header:</b> virus coat protein <b>Chain:</b> B: <b>PDB Molecule:</b> vp9; <b>PDBTitle:</b> structure of bannavirus vp9