
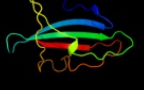
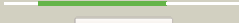


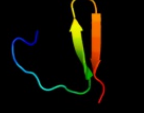

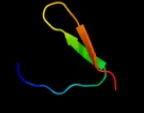
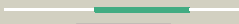
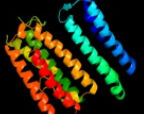


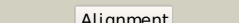

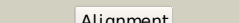






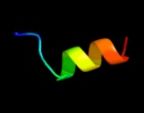


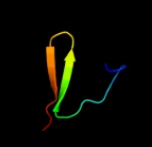
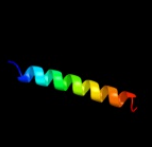
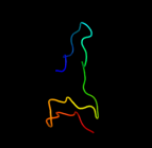



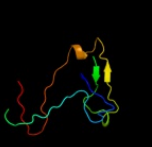



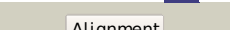

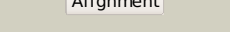
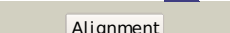

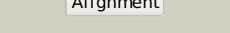
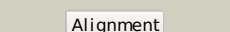

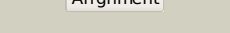


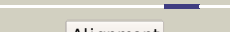
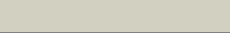

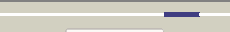
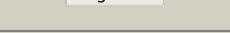


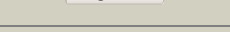
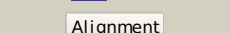

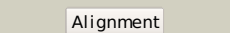



Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P33927
Date	Thu Jan 5 11:52:49 GMT 2012
Unique Job ID	a27f3525d5524660

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3cfuA_	 Alignment		63.9	14	PDB header: lipoprotein Chain: A: PDB Molecule: uncharacterized lipoprotein yjha; PDBTitle: crystal structure of the yjha protein from bacillus subtilis. northeast structural genomics consortium target3 sr562
2	c3mk7K_	 Alignment		51.6	12	PDB header: oxidoreductase Chain: K: PDB Molecule: cytochrome c oxidase, cbb3-type, subunit n; PDBTitle: the structure of cbb3 cytochrome oxidase
3	d2affa1	 Alignment		47.6	28	Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain
4	c1r21A_	 Alignment		46.8	30	PDB header: cell cycle Chain: A: PDB Molecule: antigen ki-67; PDBTitle: solution structure of human ki67 fha domain
5	c3rkoN_	 Alignment		46.7	13	PDB header: oxidoreductase Chain: N: PDB Molecule: nadh-quinone oxidoreductase subunit n; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
6	c3lkbB_	 Alignment		29.6	25	PDB header: chaperone Chain: B: PDB Molecule: nascent polypeptide-associated complex subunit alpha; PDBTitle: human nac dimerization domain
7	c2jp3A_	 Alignment		29.3	29	PDB header: transcription Chain: A: PDB Molecule: fxyd domain-containing ion transport regulator 4; PDBTitle: solution structure of the human fxyd4 (chif) protein in sds2 micelles
8	c1aggB_	 Alignment		27.3	42	PDB header: growth factor Chain: B: PDB Molecule: glial cell-derived neurotrophic factor; PDBTitle: glial cell-derived neurotrophic factor from rat
9	d1udxa3	 Alignment		26.2	29	Fold: Obg GTP-binding protein C-terminal domain Superfamily: Obg GTP-binding protein C-terminal domain Family: Obg GTP-binding protein C-terminal domain
10	d2ff4a3	 Alignment		20.9	29	Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain
11	d3b55a1	 Alignment		18.1	13	Fold: EreA/ChaN-like Superfamily: EreA/ChaN-like Family: EreA-like

12	c2radB_	Alignment		17.4	13	PDB header: biosynthetic protein Chain: B: PDB Molecule: succinoglycan biosynthesis protein; PDBTitle: crystal structure of the succinoglycan biosynthesis2 protein. northeast structural genomics consortium target3 bcr135
13	c1lcyA_	Alignment		16.7	14	PDB header: hydrolase Chain: A: PDB Molecule: htra2 serine protease; PDBTitle: crystal structure of the mitochondrial serine protease htra2
14	c3gqsB_	Alignment		14.8	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: adenylate cyclase-like protein; PDBTitle: crystal structure of the fha domain of ct664 protein from chlamydia2 trachomatis
15	c1bhbA_	Alignment		14.0	31	PDB header: photoreceptor Chain: A: PDB Molecule: bacteriorhodopsin; PDBTitle: three-dimensional structure of (1-71) bacterioopsin2 solubilized in methanol-chloroform and sds micelles3 determined by 15n-1h heteronuclear nmr spectroscopy
16	d1dlpa1	Alignment		13.9	19	Fold: beta-Prism II Superfamily: alpha-D-mannose-specific plant lectins Family: alpha-D-mannose-specific plant lectins
17	c3rkoM_	Alignment		12.5	15	PDB header: oxidoreductase Chain: M: PDB Molecule: nadh-quinone oxidoreductase subunit m; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
18	c2zpmA_	Alignment		11.9	19	PDB header: hydrolase Chain: A: PDB Molecule: regulator of sigma e protease; PDBTitle: crystal structure analysis of pdz domain b
19	d1l9bm_	Alignment		11.5	23	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
20	c3seeA_	Alignment		11.4	21	PDB header: sugar binding protein Chain: A: PDB Molecule: hypothetical sugar binding protein; PDBTitle: crystal structure of a hypothetical sugar binding protein (bt_4411)2 from bacteroides thetaiotaomicron vpi-5482 at 1.25 a resolution
21	c2kklA_	Alignment	not modelled	10.2	27	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein mb1858; PDBTitle: solution nmr structure of fha domain of mb1858 from2 mycobacterium bovis. northeast structural genomics3 consortium target mbr243c (24-155).
22	c3poaA_	Alignment	not modelled	10.0	14	PDB header: peptide binding protein Chain: A: PDB Molecule: putative uncharacterized protein tb39.8; PDBTitle: structural and functional analysis of phosphothreonine-dependent fha2 domain interactions
23	c2l9uA_	Alignment	not modelled	9.9	31	PDB header: membrane protein Chain: A: PDB Molecule: receptor tyrosine-protein kinase erbb-3; PDBTitle: spatial structure of dimeric erbb3 transmembrane domain
24	d2o3ga1	Alignment	not modelled	9.9	27	Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CorC/HlyC domain-like
25	d2j8cm1	Alignment	not modelled	9.8	23	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
26	d2f69a1	Alignment	not modelled	9.6	20	Fold: open-sided beta-meander Superfamily: Histone H3 K4-specific methyltransferase SET7/9 N-terminal domain Family: Histone H3 K4-specific methyltransferase SET7/9 N-terminal domain
27	c2r76A_	Alignment	not modelled	9.6	15	PDB header: lipoprotein Chain: A: PDB Molecule: rare lipoprotein b; PDBTitle: crystal structure of the rare lipoprotein b (so_1173) from shewanella2 oneidensis, northeast structural genomics consortium target sor91a
						Fold: PDZ domain-like

28	d2i4sa1	 <div>Alignment</div>	not modelled	9.4	18	Superfamily: PDZ domain-like Family: EpsC C-terminal domain-like
29	c3pv4A	 <div>Alignment</div>	not modelled	9.3	33	PDB header: hydrolase Chain: A: PDB Molecule: degq; PDBTitle: structure of legionella fallonii degq (delta-pdz2 variant)
30	d3dtua1	 <div>Alignment</div>	not modelled	9.1	11	Fold: Cytochrome c oxidase subunit I-like Superfamily: Cytochrome c oxidase subunit I-like Family: Cytochrome c oxidase subunit I-like
31	c2jo1A	 <div>Alignment</div>	not modelled	8.9	19	PDB header: hydrolase regulator Chain: A: PDB Molecule: phospholemman; PDBTitle: structure of the na,k-atpase regulatory protein fxyd1 in2 micelles
32	d2bgca2	 <div>Alignment</div>	not modelled	8.8	80	Fold: Double-stranded beta-helix Superfamily: CAMP-binding domain-like Family: Listeriolysin regulatory protein PrfA, N-terminal domain
33	d1hdmb2	 <div>Alignment</div>	not modelled	8.7	83	Fold: MHC antigen-recognition domain Superfamily: MHC antigen-recognition domain Family: MHC antigen-recognition domain
34	c4a0kB	 <div>Alignment</div>	not modelled	8.6	75	PDB header: ligase/dna-binding protein/dna Chain: B: PDB Molecule: e3 ubiquitin-protein ligase rbx1; PDBTitle: structure of ddb1-ddb2-cul4a-rbx1 bound to a 12 bp abasic2 site containing dna-duplex
35	c3uotB	 <div>Alignment</div>	not modelled	8.5	7	PDB header: cell cycle Chain: B: PDB Molecule: mediator of dna damage checkpoint protein 1; PDBTitle: crystal structure of mdc1 fha domain in complex with a phosphorylated2 peptide from the mdc1 n-terminus
36	c2leza	 <div>Alignment</div>	not modelled	8.5	20	PDB header: signaling protein Chain: A: PDB Molecule: secreted effector protein pipb2; PDBTitle: solution nmr structure of n-terminal domain of salmonella effector2 protein pipb2. northeast structural genomics consortium (nesg) target3 stt318a
37	d2i6va1	 <div>Alignment</div>	not modelled	8.4	18	Fold: PDZ domain-like Superfamily: PDZ domain-like Family: EpsC C-terminal domain-like
38	d1x9la	 <div>Alignment</div>	not modelled	8.3	13	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: DR1885-like metal-binding protein Family: DR1885-like metal-binding protein
39	d1rl2a2	 <div>Alignment</div>	not modelled	8.1	20	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
40	d2p13a1	 <div>Alignment</div>	not modelled	8.0	16	Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CorC/HlyC domain-like
41	c2q04C	 <div>Alignment</div>	not modelled	7.9	43	PDB header: transferase Chain: C: PDB Molecule: acetoin utilization protein; PDBTitle: crystal structure of acetoin utilization protein (zp_00540088.1) from2 exiguobacterium sibiricum 255-15 at 2.33 a resolution
42	c2kjpA	 <div>Alignment</div>	not modelled	7.8	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein ylbl; PDBTitle: solution structure of protein ylbl (bsu15050) from bacillus2 subtilis, northeast structural genomics consortium target3 sr713a
43	c1yi5C	 <div>Alignment</div>	not modelled	7.5	7	PDB header: transferase Chain: C: PDB Molecule: 5' polynucleotide kinase-3' phosphatase fha domain; PDBTitle: molecular architecture of mammalian polynucleotide kinase, a dna2 repair enzyme
44	c3ia8A	 <div>Alignment</div>	not modelled	7.5	29	PDB header: metal binding protein Chain: A: PDB Molecule: thap domain-containing protein 4; PDBTitle: the structure of the c-terminal heme nitrobindin domain of thap2 domain-containing protein 4 from homo sapiens
45	c2p3wB	 <div>Alignment</div>	not modelled	7.4	17	PDB header: protein binding Chain: B: PDB Molecule: probable serine protease htra3; PDBTitle: crystal structure of the htra3 pdz domain bound to a phage-derived2 ligand (fgrwv)
46	c3htxA	 <div>Alignment</div>	not modelled	7.3	19	PDB header: transferase/rna Chain: A: PDB Molecule: hen1; PDBTitle: crystal structure of small rna methyltransferase hen1
47	c1hgvA	 <div>Alignment</div>	not modelled	7.3	21	PDB header: virus Chain: A: PDB Molecule: ph75 inovirus major coat protein; PDBTitle: filamentous bacteriophage ph75
48	d2qgma1	 <div>Alignment</div>	not modelled	7.3	13	Fold: EreA/ChaN-like Superfamily: EreA/ChaN-like Family: EreA-like
49	c2qgmA	 <div>Alignment</div>	not modelled	7.3	13	PDB header: biosynthetic protein Chain: A: PDB Molecule: succinoglycan biosynthesis protein; PDBTitle: crystal structure of succinoglycan biosynthesis protein at2 the resolution 1.7 a. northeast structural genomics3 consortium target bcr136.
50	d1eysm	 <div>Alignment</div>	not modelled	7.3	18	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
51	c3rkoL	 <div>Alignment</div>	not modelled	7.3	13	PDB header: oxidoreductase Chain: L: PDB Molecule: nadh-quinone oxidoreductase subunit I; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
52	c3mpbA	 <div>Alignment</div>	not modelled	7.2	14	PDB header: isomerase Chain: A: PDB Molecule: sugar isomerase; PDBTitle: z5688 from e. coli o157:h7 bound to fructose
		 <div>Alignment</div>				Fold: Cyclin-like

53	d1gh6b2	Alignment	not modelled	7.2	27	Superfamily: Cyclin-like Family: Retinoblastoma tumor suppressor domains
54	c3i18A	Alignment	not modelled	7.2	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lmo2051 protein; PDBTitle: crystal structure of the pdz domain of the sdrc-like protein2 (lmo2051) from listeria monocytogenes, northeast structural3 genomics consortium target lmr166b
55	c3stjC	Alignment	not modelled	7.1	24	PDB header: hydrolase Chain: C: PDB Molecule: protease degg; PDBTitle: crystal structure of the protease + pdz1 domain of degg from2 escherichia coli
56	c3eh4A	Alignment	not modelled	7.0	13	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c oxidase subunit 1; PDBTitle: structure of the reduced form of cytochrome ba3 oxidase from thermus2 thermophilus
57	c1sddB	Alignment	not modelled	6.9	17	PDB header: blood clotting Chain: B: PDB Molecule: coagulation factor v; PDBTitle: crystal structure of bovine factor vai
58	c3lw52	Alignment	not modelled	6.9	21	PDB header: photosynthesis Chain: 2: PDB Molecule: type ii chlorophyll a/b binding protein from photosystem i; PDB Fragment: residues 81-246; PDBTitle: improved model of plant photosystem i
59	d1q90r	Alignment	not modelled	6.8	31	Fold: Single transmembrane helix Superfamily: ISP transmembrane anchor Family: ISP transmembrane anchor
60	c1q90R	Alignment	not modelled	6.8	31	PDB header: photosynthesis Chain: R: PDB Molecule: cytochrome b6-f complex iron-sulfur subunit; PDBTitle: structure of the cytochrome b6f (plastoquinone : plastocyanin2 oxidoreductase) from chlamydomonas reinhardtii
61	c1dlpA	Alignment	not modelled	6.8	19	PDB header: sugar binding protein Chain: A: PDB Molecule: lectin scafet precursor; PDBTitle: structural characterization of the native fetuin-binding2 protein scilla campanulata agglutinin (scafet): a novel3 two-domain lectin
62	d1e57a	Alignment	not modelled	6.7	29	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Tymoviridae-like VP
63	d1r45a	Alignment	not modelled	6.6	11	Fold: ADP-ribosylation Superfamily: ADP-ribosylation Family: ADP-ribosylating toxins
64	c1zrtD	Alignment	not modelled	6.6	10	PDB header: oxidoreductase/metal transport Chain: D: PDB Molecule: cytochrome c1; PDBTitle: rhodobacter capsulatus cytochrome bc1 complex with2 stigmatellin bound
65	d1uapa	Alignment	not modelled	6.6	15	Fold: OB-fold Superfamily: TIMP-like Family: Netrin-like domain (NTR/C345C module)
66	c2yvxD	Alignment	not modelled	6.5	18	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgte; PDBTitle: crystal structure of magnesium transporter mgte
67	d1qbaa2	Alignment	not modelled	6.4	9	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Bacterial chitinase, n-terminal domain
68	d1vqoa2	Alignment	not modelled	6.3	27	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
69	c2rf9D	Alignment	not modelled	6.3	43	PDB header: transferase Chain: D: PDB Molecule: erbb receptor feedback inhibitor 1; PDBTitle: crystal structure of the complex between the egfr kinase2 domain and a mig6 peptide
70	d1i32a2	Alignment	not modelled	6.3	18	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: GAPDH-like
71	d1ggaa2	Alignment	not modelled	6.3	24	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: GAPDH-like
72	d2r7ga2	Alignment	not modelled	6.3	27	Fold: Cyclin-like Superfamily: Cyclin-like Family: Retinoblastoma tumor suppressor domains
73	d2z9ia1	Alignment	not modelled	6.2	11	Fold: PDZ domain-like Superfamily: PDZ domain-like Family: HtrA-like serine proteases
74	d2o1ra1	Alignment	not modelled	6.2	21	Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CorC/HlyC domain-like
75	d2plia1	Alignment	not modelled	6.2	23	Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CorC/HlyC domain-like
76	c2kl1A	Alignment	not modelled	6.2	18	PDB header: protein binding Chain: A: PDB Molecule: ylbl protein; PDBTitle: solution structure of gtr34c from geobacillus thermodinitrificans.2 northeast structural genomics consortium target gtr34c
77	c2bbjB	Alignment	not modelled	6.1	12	PDB header: metal transport/membrane protein Chain: B: PDB Molecule: divalent cation transport-related protein; PDBTitle: crystal structure of the cora mg2+ transporter
78	d2pkqo2	Alignment	not modelled	6.1	18	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain

						Family: GAPDH-like
79	d2brfa1	Alignment	not modelled	6.1	8	Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain
80	d1t3la2	Alignment	not modelled	6.1	36	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
81	c3llbA_	Alignment	not modelled	6.1	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: the crystal structure of the protein pa3983 with unknown2 function from pseudomonas aeruginosa pao1
82	d1q90n_	Alignment	not modelled	6.1	35	Fold: Single transmembrane helix Superfamily: PetN subunit of the cytochrome b6f complex Family: PetN subunit of the cytochrome b6f complex
83	d2c8aa1	Alignment	not modelled	6.1	11	Fold: ADP-ribosylation Superfamily: ADP-ribosylation Family: ADP-ribosylating toxins
84	d1vjja2	Alignment	not modelled	6.0	8	Fold: Immunoglobulin-like beta-sandwich Superfamily: Transglutaminase, two C-terminal domains Family: Transglutaminase, two C-terminal domains
85	d3deda1	Alignment	not modelled	6.0	16	Fold: FAD-binding/transporter-associated domain-like Superfamily: FAD-binding/transporter-associated domain-like Family: CorC/HlyC domain-like
86	c3dedB_	Alignment	not modelled	6.0	16	PDB header: membrane protein Chain: B: PDB Molecule: probable hemolysin; PDBTitle: c-terminal domain of probable hemolysin from chromobacterium violaceum
87	c1qcrD_	Alignment	not modelled	5.9	19	PDB header: PDB COMPND:
88	d1uhta_	Alignment	not modelled	5.9	18	Fold: SMAD/FHA domain Superfamily: SMAD/FHA domain Family: FHA domain
89	d1e57b_	Alignment	not modelled	5.9	29	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Tymoviridae-like VP
90	c3cwbQ_	Alignment	not modelled	5.9	16	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
91	c2l5bA_	Alignment	not modelled	5.8	33	PDB header: apoptosis Chain: A: PDB Molecule: activator of apoptosis harakiri; PDBTitle: solution structure of the transmembrane domain of bcl-2 member2 harakiri in micelles
92	d1k3ta2	Alignment	not modelled	5.8	24	Fold: FwdE/GAPDH domain-like Superfamily: Glycerol dehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: GAPDH-like
93	d2vera1	Alignment	not modelled	5.8	40	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Bacterial adhesins Family: Dr-family adhesin
94	d1vf5c3	Alignment	not modelled	5.8	24	Fold: Single transmembrane helix Superfamily: Cytochrome f subunit of the cytochrome b6f complex, transmembrane anchor Family: Cytochrome f subunit of the cytochrome b6f complex, transmembrane anchor
95	d1rhzb_	Alignment	not modelled	5.7	24	Fold: Single transmembrane helix Superfamily: Preprotein translocase SecE subunit Family: Preprotein translocase SecE subunit
96	c2bovB_	Alignment	not modelled	5.7	11	PDB header: transferase Chain: B: PDB Molecule: mono-adp-ribosyltransferase c3; PDBTitle: molecular recognition of an adp-ribosylating clostridium2 botulinum c3 exoenzyme by rala gtpase
97	c3p56F_	Alignment	not modelled	5.6	17	PDB header: hydrolase/replication Chain: F: PDB Molecule: ribonuclease h2 subunit c; PDBTitle: the structure of the human rnase h2 complex defines key interaction2 interfaces relevant to enzyme function and human disease
98	d1ng0c_	Alignment	not modelled	5.6	38	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Tombusviridae-like VP
99	d1fft_	Alignment	not modelled	5.5	7	Fold: Cytochrome c oxidase subunit III-like Superfamily: Cytochrome c oxidase subunit III-like Family: Cytochrome c oxidase subunit III-like