






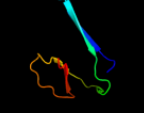

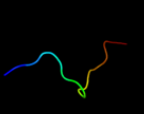

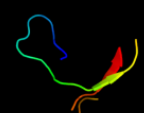







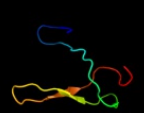

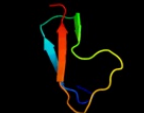
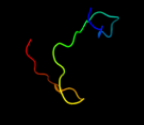

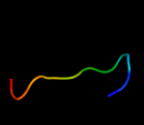


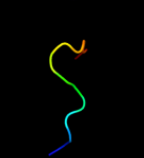

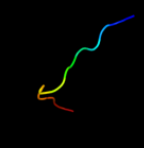



Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P65290
Date	Thu Jan 5 12:10:09 GMT 2012
Unique Job ID	bfa0aec7d50e07e2

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3cp0A_	 Alignment		72.4	7	PDB header: membrane protein Chain: A: PDB Molecule: membrane protein implicated in regulation of membrane PDBTitle: crystal structure of the soluble domain of membrane protein implicated2 in regulation of membrane protease activity from corynebacterium3 glutamicum
2	c2kvqG_	 Alignment		57.1	19	PDB header: transcription Chain: G: PDB Molecule: transcription antitermination protein nusg; PDBTitle: solution structure of nuse:nusg-ctd complex
3	c2jvvA_	 Alignment		57.1	19	PDB header: transcription Chain: A: PDB Molecule: transcription antitermination protein nusg; PDBTitle: solution structure of e. coli nusg carboxyterminal domain
4	c2lIIA_	 Alignment		54.1	8	PDB header: structural protein Chain: A: PDB Molecule: lamin-b2; PDBTitle: solution nmr structure of c-terminal globular domain of human lamin-2 b2, northeast structural genomics consortium target hr8546a
5	d1nz9a_	 Alignment		48.3	19	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: N-utilization substance G protein NusG, C-terminal domain
6	d2gnra1	 Alignment		47.6	11	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: SSO2064-like
7	c2e6zA_	 Alignment		46.6	17	PDB header: transcription Chain: A: PDB Molecule: transcription elongation factor spt5; PDBTitle: solution structure of the second kow motif of human2 transcription elongation factor spt5
8	d1nppa2	 Alignment		45.5	19	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: N-utilization substance G protein NusG, C-terminal domain
9	d1h9ma1	 Alignment		43.8	14	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
10	d1fdra1	 Alignment		38.9	13	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Riboflavin synthase domain-like Family: Ferredoxin reductase FAD-binding domain-like
11	d1k25a1	 Alignment		37.8	10	Fold: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Superfamily: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Family: Penicillin-binding protein 2x (pbp-2x), c-terminal domain

12	dlq1ca1	Alignment		36.9	20	Fold: FKBP-like Superfamily: FKBP-like Family: FKBP immunophilin/proline isomerase
13	c2dxcG_	Alignment		36.7	29	PDB header: hydrolase Chain: G: PDB Molecule: thiocyanate hydrolase subunit alpha; PDBTitle: recombinant thiocyanate hydrolase, fully-matured form
14	d2do3a1	Alignment		35.7	25	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: SPT5 KOW domain-like
15	d1oxxk1	Alignment		35.4	8	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
16	d1pyya1	Alignment		35.3	8	Fold: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Superfamily: Penicillin-binding protein 2x (pbp-2x), c-terminal domain Family: Penicillin-binding protein 2x (pbp-2x), c-terminal domain
17	c3qz9D_	Alignment		34.0	29	PDB header: lyase Chain: D: PDB Molecule: co-type nitrile hydratase beta subunit; PDBTitle: crystal structure of co-type nitrile hydratase beta-y215f from2 pseudomonas putida.
18	c1h9mB_	Alignment		33.8	11	PDB header: binding protein Chain: B: PDB Molecule: molybdenum-binding-protein; PDBTitle: two crystal structures of the cytoplasmic molybdate-binding2 protein modg suggest a novel cooperative binding mechanism3 and provide insights into ligand-binding specificity.4 peg-grown form with molybdate bound
19	d1ugpb_	Alignment		33.2	21	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
20	d1lifr_	Alignment		33.2	13	Fold: Immunoglobulin-like beta-sandwich Superfamily: Lamin A/C globular tail domain Family: Lamin A/C globular tail domain
21	d1h9ra1	Alignment	not modelled	33.0	14	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
22	d1v29b_	Alignment	not modelled	31.6	14	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
23	c3e0eA_	Alignment	not modelled	31.3	19	PDB header: replication Chain: A: PDB Molecule: replication protein a; PDBTitle: crystal structure of a domain of replication protein a from2 methanococcus maripaludis. northeast structural genomics3 target mrr110b
24	d1ivta_	Alignment	not modelled	30.7	13	Fold: Immunoglobulin-like beta-sandwich Superfamily: Lamin A/C globular tail domain Family: Lamin A/C globular tail domain
25	c3jt0B_	Alignment	not modelled	28.1	15	PDB header: structural protein Chain: B: PDB Molecule: lamin-b1; PDBTitle: crystal structure of the c-terminal fragment (426-558)2 lamin-b1 from homo sapiens, northeast structural genomics3 consortium target hr5546a
26	d2zjrm1	Alignment	not modelled	27.7	36	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal protein L19
27	d2asba1	Alignment	not modelled	27.2	6	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
28	d1pkla3	Alignment	not modelled	27.1	37	Fold: Pyruvate kinase C-terminal domain-like Superfamily: PK C-terminal domain-like Family: Pyruvate kinase, C-terminal domain

29	c2fhdA_	Alignment	not modelled	22.4	9	PDB header: cell cycle Chain: A: PDB Molecule: dna repair protein rhp9/crb2; PDBTitle: crystal structure of crb2 tandem tudor domains
30	d2qdyb1	Alignment	not modelled	21.8	23	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
31	d1fr3a_	Alignment	not modelled	21.4	8	Fold: OB-fold Superfamily: MOP-like Family: Molybdate/tungstate binding protein MOP
32	c2kppA_	Alignment	not modelled	20.7	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0431 protein; PDBTitle: solution nmr structure of lin0431 protein from listeria innocua.2 northeast structural genomics consortium target lkr112
33	d1h9ra2	Alignment	not modelled	20.4	9	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
34	d1v43a2	Alignment	not modelled	19.5	9	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
35	c1m1gB_	Alignment	not modelled	18.9	19	PDB header: transcription Chain: B: PDB Molecule: transcription antitermination protein nusg; PDBTitle: crystal structure of aquifex aeolicus n-utilization2 substance g (nusg), space group p2(1)
36	d1yloa1	Alignment	not modelled	18.5	16	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Amino peptidase/glucanase lid domain Family: Amino peptidase/glucanase lid domain
37	d1vhea1	Alignment	not modelled	18.2	23	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Amino peptidase/glucanase lid domain Family: Amino peptidase/glucanase lid domain
38	d1kyaa2	Alignment	not modelled	17.9	20	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multi domain cupredoxins
39	c2k5hA_	Alignment	not modelled	16.6	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein; PDBTitle: solution nmr structure of protein encoded by mth693 from2 methanobacterium thermoautotrophicum: northeast structural3 genomics consortium target tt824a
40	c1h9sA_	Alignment	not modelled	16.2	14	PDB header: transcription regulator Chain: A: PDB Molecule: molybdenum transport protein mode; PDBTitle: molybdate bound complex of dimop domain of mode from e.coli
41	d2ccwa1	Alignment	not modelled	15.8	7	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
42	d1g2914	Alignment	not modelled	15.5	15	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
43	d1te7a_	Alignment	not modelled	15.3	15	Fold: PUA domain-like Superfamily: PUA domain-like Family: yqfB-like
44	d1ah9a_	Alignment	not modelled	15.2	12	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
45	d1qfja1	Alignment	not modelled	15.0	12	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Riboflavin synthase domain-like Family: Ferredoxin reductase FAD-binding domain-like
46	d1h9ma2	Alignment	not modelled	14.9	10	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
47	d2j01t1	Alignment	not modelled	14.6	36	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal protein L19
48	c1rouA_	Alignment	not modelled	14.6	19	PDB header: rotamase (isomerase) Chain: A: PDB Molecule: fkbp59-i; PDBTitle: structure of fkbp59-i, the n-terminal domain of a 59 kda2 fk506-binding protein, nmr, 22 structures
49	c3p8bB_	Alignment	not modelled	14.1	12	PDB header: transferase/transcription Chain: B: PDB Molecule: transcription antitermination protein nusg; PDBTitle: x-ray crystal structure of pyrococcus furiosus transcription2 elongation factor spt4/5
50	d1y0ya1	Alignment	not modelled	13.8	10	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Amino peptidase/glucanase lid domain Family: Amino peptidase/glucanase lid domain
51	d2cowa1	Alignment	not modelled	13.6	13	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
52	c3zv0D_	Alignment	not modelled	13.1	23	PDB header: cell cycle Chain: D: PDB Molecule: h/aca ribonucleoprotein complex subunit 4; PDBTitle: structure of the shq1p-cbf5p complex
53	c2lbgA_	Alignment	not modelled	12.9	18	PDB header: membrane protein Chain: A: PDB Molecule: major prion protein; PDBTitle: structure of the chr of the prion protein in dpc micelles
54	d1hh2p1	Alignment	not modelled	12.8	13	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
						PDB header: lyase Chain: B: PDB Molecule: d-serine deaminase;

55	c3gwqB_	Alignment	not modelled	12.7	7	PDBTitle: crystal structure of a putative d-serine deaminase (bxe_a4060) from2 burkholderia xenovorans lb400 at 2.00 a resolution
56	d1guta_	Alignment	not modelled	12.7	7	Fold: OB-fold Superfamily: MOP-like Family: Molybdate/tungstate binding protein MOP
57	d3d31a1	Alignment	not modelled	12.3	5	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
58	c2egcA_	Alignment	not modelled	12.3	11	PDB header: signaling protein Chain: A: PDB Molecule: sh3 and px domain-containing protein 2a; PDBTitle: solution structure of the fifth sh3 domain from human2 kiaa0418 protein
59	c2k14A_	Alignment	not modelled	12.2	12	PDB header: unknown function Chain: A: PDB Molecule: yuaf protein; PDBTitle: solution structure of the soluble domain of the nfd2 protein yuaf from bacillus subtilis
60	c2xhcA_	Alignment	not modelled	11.9	29	PDB header: transcription Chain: A: PDB Molecule: transcription antitermination protein nusg; PDBTitle: crystal structure of thermotoga maritima n-utilization substance g2 (nusg)
61	d1v10a2	Alignment	not modelled	11.0	17	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multidomain cupredoxins
62	d2hqha1	Alignment	not modelled	10.8	11	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
63	d2cp5a1	Alignment	not modelled	10.5	13	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
64	d2awna1	Alignment	not modelled	10.5	4	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
65	d2grea1	Alignment	not modelled	10.4	13	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Ami nopeptidase/glucanase lid domain Family: Ami nopeptidase/glucanase lid domain
66	c3dm3A_	Alignment	not modelled	9.8	16	PDB header: replication Chain: A: PDB Molecule: replication factor a; PDBTitle: crystal structure of a domain of a replication factor a2 protein, from methanocaldococcus jannaschii. northeast3 structural genomics target mjr118e
67	c1piwA_	Alignment	not modelled	9.7	9	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical zinc-type alcohol dehydrogenase- PDBTitle: apo and holo structures of an nadp(h)-dependent cinnamyl2 alcohol dehydrogenase from saccharomyces cerevisiae
68	d2q07a1	Alignment	not modelled	9.6	10	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain
69	c2d6fA_	Alignment	not modelled	9.4	14	PDB header: ligase/rna Chain: A: PDB Molecule: glutamyl-trna(gln) amidotransferase subunit d; PDBTitle: crystal structure of glu-trna(gln) amidotransferase in the2 complex with trna(gln)
70	d2e3ia1	Alignment	not modelled	9.3	18	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
71	d2gycn1	Alignment	not modelled	9.3	23	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal protein L19
72	c1nwxN_	Alignment	not modelled	9.1	36	PDB header: ribosome Chain: N: PDB Molecule: ribosomal protein l19; PDBTitle: complex of the large ribosomal subunit from deinococcus2 radiodurans with abt-773
73	d2vv5a1	Alignment	not modelled	9.1	15	Fold: Sm-like fold Superfamily: Sm-like ribonucleoproteins Family: Mechanosensitive channel protein MscS (YggB), middle domain
74	d2zjrr1	Alignment	not modelled	8.8	17	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal proteins L24p and L21e
75	c3m9qA_	Alignment	not modelled	8.8	16	PDB header: dna binding protein Chain: A: PDB Molecule: protein male-specific lethal-3; PDBTitle: drosophila msl3 chromodomain
76	d1q7ha1	Alignment	not modelled	8.7	9	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain
77	d1whma_	Alignment	not modelled	8.7	5	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
78	c3fp9E_	Alignment	not modelled	8.6	8	PDB header: hydrolase Chain: E: PDB Molecule: proteasome-associated atpase; PDBTitle: crystal structure of intern domain of proteasome-associated2 atpase, mycobacterium tuberculosis
79	d1k3ra1	Alignment	not modelled	8.6	18	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Hypothetical protein MTH1 (MT0001), insert domain
80	c2piaA_	Alignment	not modelled	8.2	11	PDB header: reductase Chain: A: PDB Molecule: phthalate dioxygenase reductase; PDBTitle: phthalate dioxygenase reductase: a modular structure for2 electron transfer from pyridine nucleotides to [2fe-2s]

81	c1krhA	Alignment	not modelled	8.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: benzoate 1,2-dioxygenase reductase; PDBTitle: x-ray stucture of benzoate dioxygenase reductase
82	c3es4B	Alignment	not modelled	8.0	13	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
83	d1piwa1	Alignment	not modelled	7.8	9	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
84	d2cp2a1	Alignment	not modelled	7.8	13	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
85	d2cp0a1	Alignment	not modelled	7.6	17	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
86	d2jnaa1	Alignment	not modelled	7.6	20	Fold: Dodecin subunit-like Superfamily: YdgH-like Family: YdgH-like
87	d1tova	Alignment	not modelled	7.6	17	Fold: SH3-like barrel Superfamily: Cap-Gly domain Family: Cap-Gly domain
88	c3i4oA	Alignment	not modelled	7.5	6	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-1; PDBTitle: crystal structure of translation initiation factor 1 from2 mycobacterium tuberculosis
89	c3jxoB	Alignment	not modelled	7.4	10	PDB header: transport protein Chain: B: PDB Molecule: trka-n domain protein; PDBTitle: crystal structure of an octomeric two-subunit trka k+ channel ring2 gating assembly, tm1088a:tm1088b, from thermotoga maritima
90	d1iq8a3	Alignment	not modelled	7.4	11	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain
91	d1hfua2	Alignment	not modelled	7.4	27	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multi domain cupredoxins
92	d1uufa1	Alignment	not modelled	7.3	10	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
93	d1m1ha1	Alignment	not modelled	7.1	15	Fold: N-utilization substance G protein NusG, insert domain Superfamily: N-utilization substance G protein NusG, insert domain Family: N-utilization substance G protein NusG, insert domain
94	c2asbA	Alignment	not modelled	7.0	6	PDB header: transcription/rna Chain: A: PDB Molecule: transcription elongation protein nusa; PDBTitle: structure of a mycobacterium tuberculosis nusa-rna complex
95	c3zvkg	Alignment	not modelled	7.0	18	PDB header: antitoxin/toxin/dna Chain: G: PDB Molecule: antitoxin of toxin-antitoxin system vapb; PDBTitle: crystal structure of vapbc2 from rickettsia felis bound to2 a dna fragment from their promoter
96	c1yqxB	Alignment	not modelled	6.9	26	PDB header: oxidoreductase Chain: B: PDB Molecule: sinapyl alcohol dehydrogenase; PDBTitle: sinapyl alcohol dehydrogenase at 2.5 angstrom resolution
97	c2e4hA	Alignment	not modelled	6.8	22	PDB header: structural protein Chain: A: PDB Molecule: restin; PDBTitle: solution structure of cytoskeletal protein in complex with2 tubulin tail
98	c2vyzA	Alignment	not modelled	6.7	6	PDB header: transport protein Chain: A: PDB Molecule: sugar abc transporter, atp-binding protein; PDBTitle: crystal structure of sugar abc transporter, atp-binding protein
99	d2apoa1	Alignment	not modelled	6.7	18	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain