




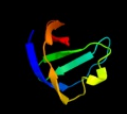



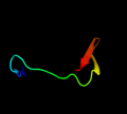


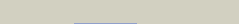


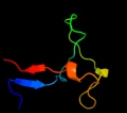





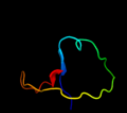


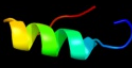




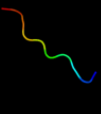



# Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P75987
Date	Thu Jan 5 12:16:57 GMT 2012
Unique Job ID	b831ff2614fd1d0d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c2jsoA_</a>	 Alignment		96.9	19	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> polymyxin resistance protein pmrd; <b>PDBTitle:</b> antimicrobial resistance protein
2	<a href="#">c2rqxA_</a>	 Alignment		96.7	17	<b>PDB header:</b> signaling protein <b>Chain:</b> A: <b>PDB Molecule:</b> polymyxin b resistance protein; <b>PDBTitle:</b> solution nmr structure of pmrd from klebsiella pneumoniae
3	<a href="#">c2k75A_</a>	 Alignment		59.1	7	<b>PDB header:</b> dna binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein ta0387; <b>PDBTitle:</b> solution nmr structure of the ob domain of ta0387 from2 thermoplasma acidophilum. northeast structural genomics3 consortium target tar80b.
4	<a href="#">c2kenA_</a>	 Alignment		35.7	15	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> conserved protein; <b>PDBTitle:</b> solution nmr structure of the ob domain (residues 67-166)2 of mm0293 from methanosarcina mazei. northeast structural3 genomics consortium target mar214a.
5	<a href="#">d1giga2</a>	 Alignment		27.9	17	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
6	<a href="#">d1r45a_</a>	 Alignment		25.3	21	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
7	<a href="#">c3bw8B_</a>	 Alignment		25.0	28	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> mono-adp-ribosyltransferase c3; <b>PDBTitle:</b> crystal structure of the clostridium limosum c3 exoenzyme
8	<a href="#">c1xzzA_</a>	 Alignment		24.7	22	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> inositol 1,4,5-trisphosphate receptor type 1; <b>PDBTitle:</b> crystal structure of the ligand binding suppressor domain of type 12 inositol 1,4,5-trisphosphate receptor
9	<a href="#">c3dm3A_</a>	 Alignment		23.7	11	<b>PDB header:</b> replication <b>Chain:</b> A: <b>PDB Molecule:</b> replication factor a; <b>PDBTitle:</b> crystal structure of a domain of a replication factor a2 protein, from methanocaldococcus jannaschii. northeast3 structural genomics target mjr118e
10	<a href="#">d1y0jb1</a>	 Alignment		20.5	38	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> C2HC finger
11	<a href="#">d1o7ia_</a>	 Alignment		18.8	10	<b>Fold:</b> OB-fold <b>Superfamily:</b> Nucleic acid-binding proteins <b>Family:</b> Single strand DNA-binding domain, SSB

12	<a href="#">c2k9oA</a>	Alignment		18.2	36	<b>PDB header:</b> toxin <b>Chain:</b> A: <b>PDB Molecule:</b> vm24 scorpion toxin; <b>PDBTitle:</b> solution structure of vm24 synthetic scorpion toxin
13	<a href="#">d1wdia</a>	Alignment		18.1	38	<b>Fold:</b> QueA-like <b>Superfamily:</b> QueA-like <b>Family:</b> QueA-like
14	<a href="#">c2b68A</a>	Alignment		17.6	36	<b>PDB header:</b> antimicrobial protein <b>Chain:</b> A: <b>PDB Molecule:</b> defensin; <b>PDBTitle:</b> solution structure of the recombinant crassostrea gigas2 defensin
15	<a href="#">d1giga1</a>	Alignment		17.2	17	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
16	<a href="#">c1hvwA</a>	Alignment		16.2	30	<b>PDB header:</b> toxin <b>Chain:</b> A: <b>PDB Molecule:</b> omega-atracotoxin-hv1a; <b>PDBTitle:</b> hairpinless mutant of omega-atracotoxin-hv1a
17	<a href="#">d1hvwA</a>	Alignment		16.2	30	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> omega toxin-like <b>Family:</b> Spider toxins
18	<a href="#">c2k6uA</a>	Alignment		16.0	57	<b>PDB header:</b> hormone <b>Chain:</b> A: <b>PDB Molecule:</b> insulin-like 3 a chain; <b>PDBTitle:</b> the solution structure of a conformationally restricted2 fully active derivative of the human relaxin-like factor3 (rlf)
19	<a href="#">d2apia1</a>	Alignment		15.9	40	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> SGNH hydrolase <b>Family:</b> Putative acetylxyln esterase-like
20	<a href="#">c1i4oC</a>	Alignment		15.1	12	<b>PDB header:</b> apoptosis/hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> baculoviral iap repeat-containing protein 4; <b>PDBTitle:</b> crystal structure of the xiap/caspase-7 complex
21	<a href="#">d1vkya</a>	Alignment	not modelled	14.6	31	<b>Fold:</b> QueA-like <b>Superfamily:</b> QueA-like <b>Family:</b> QueA-like
22	<a href="#">d1bx7a</a>	Alignment	not modelled	14.0	42	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> Leech antihemostatic proteins <b>Family:</b> Huristasin-like
23	<a href="#">d1yq2a5</a>	Alignment	not modelled	13.8	6	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> (Trans)glycosidases <b>Family:</b> beta-glycanases
24	<a href="#">d1zmba1</a>	Alignment	not modelled	13.5	30	<b>Fold:</b> Flavodoxin-like <b>Superfamily:</b> SGNH hydrolase <b>Family:</b> Putative acetylxyln esterase-like
25	<a href="#">c3u0jB</a>	Alignment	not modelled	13.3	21	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> type iii effector hopu1; <b>PDBTitle:</b> crystal structure of adp-ribosyltransferase hopu1 of pseudomonas2 syringae pv. tomato dc3000
26	<a href="#">d1fmta1</a>	Alignment	not modelled	13.0	25	<b>Fold:</b> FMT C-terminal domain-like <b>Superfamily:</b> FMT C-terminal domain-like <b>Family:</b> Post formyltransferase domain
27	<a href="#">c1yy3A</a>	Alignment	not modelled	12.8	13	<b>PDB header:</b> isomerase <b>Chain:</b> A: <b>PDB Molecule:</b> s-adenosylmethionine:trna ribosyltransferase- <b>PDBTitle:</b> structure of s-adenosylmethionine:trna ribosyltransferase-2 isomerase (quea)
28	<a href="#">d1rm6c2</a>	Alignment	not modelled	12.1	13	<b>Fold:</b> beta-Grasp (ubiquitin-like) <b>Superfamily:</b> 2Fe-2S ferredoxin-like <b>Family:</b> 2Fe-2S ferredoxin domains from multidomain proteins
						<b>Fold:</b> Knottins (small inhibitors, toxins, lectins)

29	<a href="#">dlskza1</a>	Alignment	not modelled	12.1	38	<b>Superfamily:</b> Leech antihemostatic proteins <b>Family:</b> Huristasin-like
30	<a href="#">dliray2</a>	Alignment	not modelled	11.4	16	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> Immunoglobulin <b>Family:</b> I set domains
31	<a href="#">dl17la</a>	Alignment	not modelled	11.3	40	<b>Fold:</b> Galactose-binding domain-like <b>Superfamily:</b> Galactose-binding domain-like <b>Family:</b> PA-IL, galactose-binding lectin 1
32	<a href="#">c2gwmA</a>	Alignment	not modelled	10.9	13	<b>PDB header:</b> transferase, toxin <b>Chain:</b> A: <b>PDB Molecule:</b> 65 kda virulence protein; <b>PDBTitle:</b> crystal structure of the salmonella spvb atr domain
33	<a href="#">dlqs1a1</a>	Alignment	not modelled	10.9	13	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
34	<a href="#">dlejab</a>	Alignment	not modelled	10.4	31	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> Leech antihemostatic proteins <b>Family:</b> Huristasin-like
35	<a href="#">dlhmja</a>	Alignment	not modelled	10.2	8	<b>Fold:</b> RPB5-like RNA polymerase subunit <b>Superfamily:</b> RPB5-like RNA polymerase subunit <b>Family:</b> RPB5
36	<a href="#">c2yuza</a>	Alignment	not modelled	10.0	11	<b>PDB header:</b> immune system <b>Chain:</b> A: <b>PDB Molecule:</b> myosin-binding protein c, slow-type; <b>PDBTitle:</b> solution structure of 4th immunoglobulin domain of slow2 type myosin-binding protein c
37	<a href="#">c2bovB</a>	Alignment	not modelled	9.9	24	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> mono-adp-ribosyltransferase c3; <b>PDBTitle:</b> molecular recognition of an adp-ribosylating clostridium2 botulinum c3 exoenzyme by rala gtpase
38	<a href="#">dlldza2</a>	Alignment	not modelled	9.8	15	<b>Fold:</b> RPB5-like RNA polymerase subunit <b>Superfamily:</b> RPB5-like RNA polymerase subunit <b>Family:</b> RPB5
39	<a href="#">dl1eika</a>	Alignment	not modelled	9.3	15	<b>Fold:</b> RPB5-like RNA polymerase subunit <b>Superfamily:</b> RPB5-like RNA polymerase subunit <b>Family:</b> RPB5
40	<a href="#">dlwjja</a>	Alignment	not modelled	9.2	13	<b>Fold:</b> OB-fold <b>Superfamily:</b> Nucleic acid-binding proteins <b>Family:</b> Single strand DNA-binding domain, SSB
41	<a href="#">c3gabC</a>	Alignment	not modelled	8.7	50	<b>PDB header:</b> hydrolase <b>Chain:</b> C: <b>PDB Molecule:</b> dna mismatch repair protein mutl; <b>PDBTitle:</b> c-terminal domain of bacillus subtilis mutl crystal form i
42	<a href="#">clz0zC</a>	Alignment	not modelled	8.6	14	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> probable inorganic polyphosphate/atp-nad kinase; <b>PDBTitle:</b> crystal structure of a nad kinase from archaeoglobus2 fulgidus in complex with nad
43	<a href="#">dlz0sa1</a>	Alignment	not modelled	8.6	14	<b>Fold:</b> NAD kinase/diacylglycerol kinase-like <b>Superfamily:</b> NAD kinase/diacylglycerol kinase-like <b>Family:</b> NAD kinase-like
44	<a href="#">c2h6oA</a>	Alignment	not modelled	8.6	26	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> major outer envelope glycoprotein gp350; <b>PDBTitle:</b> epstein barr virus major envelope glycoprotein
45	<a href="#">dlaxha</a>	Alignment	not modelled	8.5	27	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> omega toxin-like <b>Family:</b> Spider toxins
46	<a href="#">c3pt5A</a>	Alignment	not modelled	8.4	20	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> nans (yjhs), a 9-o-acetyl n-acetylneuraminic acid esterase; <b>PDBTitle:</b> crystal structure of nans
47	<a href="#">dl0jqA</a>	Alignment	not modelled	8.3	27	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
48	<a href="#">c2cpcA</a>	Alignment	not modelled	8.2	6	<b>PDB header:</b> immune system <b>Chain:</b> A: <b>PDB Molecule:</b> kiaa0657 protein; <b>PDBTitle:</b> solution structure of rsgi ruh-030, an ig like domain from2 human cdna
49	<a href="#">c3bg4D</a>	Alignment	not modelled	8.1	38	<b>PDB header:</b> hydrolase/hydrolase inhibitor <b>Chain:</b> D: <b>PDB Molecule:</b> guamerin; <b>PDBTitle:</b> the crystal structure of guamerin in complex with2 chymotrypsin and the development of an elastase-specific3 inhibitor
50	<a href="#">dltdha3</a>	Alignment	not modelled	7.9	43	<b>Fold:</b> Glucocorticoid receptor-like (DNA-binding domain) <b>Superfamily:</b> Glucocorticoid receptor-like (DNA-binding domain) <b>Family:</b> C-terminal, Zn-finger domain of MutM-like DNA repair proteins
51	<a href="#">c1wc6B</a>	Alignment	not modelled	7.9	28	<b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> adenylate cyclase; <b>PDBTitle:</b> soluble adenyl cyclase cyac from s. platensis in complex2 with rp-atpalphas in presence of bicarbonate
52	<a href="#">d2c8aa1</a>	Alignment	not modelled	7.8	24	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
53	<a href="#">c2kqdA</a>	Alignment	not modelled	7.8	50	<b>PDB header:</b> lyase <b>Chain:</b> A: <b>PDB Molecule:</b> aprataxin and pnk-like factor; <b>PDBTitle:</b> first pbz domain of human aplf protein in complex with2 ribofuranosyladenosine
54	<a href="#">d2yt9a1</a>	Alignment	not modelled	7.6	50	<b>Fold:</b> beta-beta-alpha zinc fingers <b>Superfamily:</b> beta-beta-alpha zinc fingers <b>Family:</b> Classic zinc finger, C2H2
55	<a href="#">dluzva</a>	Alignment	not modelled	7.6	15	<b>Fold:</b> Calcium-mediated lectin <b>Superfamily:</b> Calcium-mediated lectin <b>Family:</b> Calcium-mediated lectin

56	<a href="#">d1xiwb</a>	Alignment	not modelled	7.6	19	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> Immunoglobulin <b>Family:</b> I set domains
57	<a href="#">d1pcfa</a>	Alignment	not modelled	7.6	31	<b>Fold:</b> ssDNA-binding transcriptional regulator domain <b>Superfamily:</b> ssDNA-binding transcriptional regulator domain <b>Family:</b> Transcriptional coactivator PC4 C-terminal domain
58	<a href="#">c2eo1A</a>	Alignment	not modelled	7.4	11	<b>PDB header:</b> contractile protein <b>Chain:</b> A: <b>PDB Molecule:</b> cdna flj14124 fis, clone mamma1002498; <b>PDBTitle:</b> solution structure of the ig domain of human obscn protein
59	<a href="#">d1m0da</a>	Alignment	not modelled	7.3	31	<b>Fold:</b> Restriction endonuclease-like <b>Superfamily:</b> Restriction endonuclease-like <b>Family:</b> Endonuclease I (Holliday junction resolvase)
60	<a href="#">c2pmzV</a>	Alignment	not modelled	7.2	23	<b>PDB header:</b> translation, transferase <b>Chain:</b> V: <b>PDB Molecule:</b> dna-directed rna polymerase subunit h; <b>PDBTitle:</b> archaeal rna polymerase from sulfolobus solfataricus
61	<a href="#">c3ncvB</a>	Alignment	not modelled	7.0	33	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> dna mismatch repair protein mutl; <b>PDBTitle:</b> ngol
62	<a href="#">c2zfnA</a>	Alignment	not modelled	7.0	28	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> regulator of ty1 transposition protein 109; <b>PDBTitle:</b> self-acetylation mediated histone h3 lysine 56 acetylation by rtt109
63	<a href="#">d1qslA2</a>	Alignment	not modelled	6.9	13	<b>Fold:</b> ADP-ribosylation <b>Superfamily:</b> ADP-ribosylation <b>Family:</b> ADP-ribosylating toxins
64	<a href="#">c2jtdA</a>	Alignment	not modelled	6.9	3	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> myomesin-1; <b>PDBTitle:</b> skelemin immunoglobulin c2 like domain 4
65	<a href="#">c3mr7B</a>	Alignment	not modelled	6.7	24	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> adenylate/guanylate cyclase/hydrolase, alpha/beta fold <b>PDBTitle:</b> crystal structure of adenylate/guanylate cyclase/hydrolase from2 silicibacter pomeroyi
66	<a href="#">d1usra</a>	Alignment	not modelled	6.6	11	<b>Fold:</b> 6-bladed beta-propeller <b>Superfamily:</b> Sialidases <b>Family:</b> Sialidases (neuraminidases)
67	<a href="#">c3ehkC</a>	Alignment	not modelled	6.5	12	<b>PDB header:</b> plant protein <b>Chain:</b> C: <b>PDB Molecule:</b> prunin; <b>PDBTitle:</b> crystal structure of pru du amandin, an allergenic protein2 from prunus dulcis
68	<a href="#">c1rwuA</a>	Alignment	not modelled	6.5	13	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical upf0250 protein ybed; <b>PDBTitle:</b> solution structure of conserved protein ybed from e. coli
69	<a href="#">d1rwua</a>	Alignment	not modelled	6.5	13	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> YbeD/HP0495-like <b>Family:</b> YbeD-like
70	<a href="#">d1rgoa2</a>	Alignment	not modelled	6.5	57	<b>Fold:</b> CCCH zinc finger <b>Superfamily:</b> CCCH zinc finger <b>Family:</b> CCCH zinc finger
71	<a href="#">d1wwbx</a>	Alignment	not modelled	6.3	7	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> Immunoglobulin <b>Family:</b> I set domains
72	<a href="#">d1wd2a</a>	Alignment	not modelled	6.2	30	<b>Fold:</b> RING/U-box <b>Superfamily:</b> RING/U-box <b>Family:</b> RING finger domain, C3HC4
73	<a href="#">d2nqra2</a>	Alignment	not modelled	6.0	13	<b>Fold:</b> MoeA N-terminal region -like <b>Superfamily:</b> MoeA N-terminal region -like <b>Family:</b> MoeA N-terminal region -like
74	<a href="#">d1jz8a5</a>	Alignment	not modelled	5.8	9	<b>Fold:</b> TIM beta/alpha-barrel <b>Superfamily:</b> (Trans)glycosidases <b>Family:</b> beta-glycanases
75	<a href="#">d2isya2</a>	Alignment	not modelled	5.7	33	<b>Fold:</b> Iron-dependent repressor protein, dimerization domain <b>Superfamily:</b> Iron-dependent repressor protein, dimerization domain <b>Family:</b> Iron-dependent repressor protein, dimerization domain
76	<a href="#">c2k50A</a>	Alignment	not modelled	5.7	12	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> replication factor a related protein; <b>PDBTitle:</b> solution nmr structure of the replication factor a related2 protein from methanobacterium thermoautotrophicum.3 northeast structural genomics target tr91a.
77	<a href="#">d6paxa1</a>	Alignment	not modelled	5.5	18	<b>Fold:</b> DNA/RNA-binding 3-helical bundle <b>Superfamily:</b> Homeodomain-like <b>Family:</b> Paired domain
78	<a href="#">c2zkqi</a>	Alignment	not modelled	5.5	11	<b>PDB header:</b> ribosomal protein/rna <b>Chain:</b> I: <b>PDB Molecule:</b> <b>PDBTitle:</b> structure of a mammalian ribosomal 40s subunit within an2 80s complex obtained by docking homology models of the rna3 and proteins into an 8.7 a cryo-em map
79	<a href="#">d2cu3a1</a>	Alignment	not modelled	5.4	18	<b>Fold:</b> beta-Grasp (ubiquitin-like) <b>Superfamily:</b> MoaD/ThiS <b>Family:</b> ThiS
80	<a href="#">c2j58G</a>	Alignment	not modelled	5.2	25	<b>PDB header:</b> membrane protein <b>Chain:</b> G: <b>PDB Molecule:</b> outer membrane lipoprotein wza; <b>PDBTitle:</b> the structure of wza
81	<a href="#">d1s04a</a>	Alignment	not modelled	5.2	16	<b>Fold:</b> PUA domain-like <b>Superfamily:</b> PUA domain-like <b>Family:</b> ProFAR isomerase associated domain

82	<a href="#">c1ti2F_</a>	<div><div></div><div>Alignment</div></div>	not modelled	5.2	67	<b>PDB header:</b> oxidoreductase <b>Chain:</b> F: <b>PDB Molecule:</b> pyrogallol hydroxytransferase small subunit; <b>PDBTitle:</b> crystal structure of pyrogallol-phloroglucinol2 transhydroxylase from pelobacter acidigallici
83	<a href="#">d1g3wa2</a>	<div><div></div><div>Alignment</div></div>	not modelled	5.1	29	<b>Fold:</b> Iron-dependent repressor protein, dimerization domain <b>Superfamily:</b> Iron-dependent repressor protein, dimerization domain <b>Family:</b> Iron-dependent repressor protein, dimerization domain