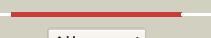
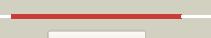
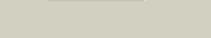
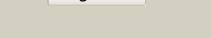


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P24181
Date	Thu Jan 5 11:40:58 GMT 2012
Unique Job ID	44c9a2357485fc67

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	cloy8A			100.0	78	PDB header: membrane protein Chain: A; PDB Molecule: acriflavine resistance protein b; PDBTitle: structural basis of multiple drug binding capacity of the acrb2 multidrug efflux pump
2	c3k07A			100.0	21	PDB header: transport protein Chain: A; PDB Molecule: cation efflux system protein cusa; PDBTitle: crystal structure of cusa
3	c3aqpB			100.0	17	PDB header: membrane protein Chain: B; PDB Molecule: probable secdf protein-export membrane protein; PDBTitle: crystal structure of secdf, a translocon-associated membrane protein,2 from thermus thermophilus
4	dliwga8			100.0	73	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
5	dliwga7			100.0	82	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
6	dliwga1			99.9	88	Fold: Ferredoxin-like Superfamily: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains Family: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains
7	dliwga2			99.7	49	Fold: Ferredoxin-like Superfamily: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains Family: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains
8	dliwga5			99.7	68	Fold: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains Superfamily: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains Family: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains
9	dliwga6			99.2	67	Fold: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains Superfamily: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains Family: Multidrug efflux transporter AcrB TolC docking domain; DN and DC subdomains
10	dliwga3			98.9	65	Fold: Ferredoxin-like Superfamily: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains Family: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains
11	dliwga4			98.0	85	Fold: Ferredoxin-like Superfamily: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains Family: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains

12	c2ropA			96.3	12	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of domains 3 and 4 of human atp7b
13	c2ew9A			95.8	17	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of apowIn5-6
14	d1s6ua			91.3	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
15	d2qifa1			91.3	21	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
16	d2aw0a			91.0	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
17	c2kkhA			90.3	15	PDB header: metal transport Chain: A: PDB Molecule: putative heavy metal transporter; PDBTitle: structure of the zinc binding domain of the atpase hma4
18	c2rmlA			90.2	14	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting p-type atpase copa; PDBTitle: solution structure of the n-terminal soluble domains of2 bacillus subtilis copa
19	d1p6ta2			89.4	13	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
20	d1p6ta1			89.4	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
21	c3dxsX		not modelled	89.1	17	PDB header: hydrolase Chain: X: PDB Molecule: copper-transporting atpase ran1; PDBTitle: crystal structure of a copper binding domain from hma7, a p-2 type atpase
22	d1cpza		not modelled	89.1	11	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
23	d1kvja		not modelled	88.5	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
24	c2ga7A		not modelled	88.4	22	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 1; PDBTitle: solution structure of the copper(i) form of the third metal-2 binding domain of atp7a protein (menkes disease protein)
25	d1q8la		not modelled	88.1	12	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
26	c2l3mA		not modelled	88.0	21	PDB header: metal binding protein Chain: A: PDB Molecule: copper-ion-binding protein; PDBTitle: solution structure of the putative copper-ion-binding protein from2 bacillus anthracis str. ames
27	c2ldiA		not modelled	87.7	19	PDB header: hydrolase Chain: A: PDB Molecule: zinc-transporting atpase; PDBTitle: nmr solution structure of ziaan sub mutant
28	c1yjrA		not modelled	87.4	16	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 1; PDBTitle: solution structure of the apo form of the sixth soluble2 domain a69p mutant of menkes protein
						PDB header: hydrolase, membrane protein

29	c2ofhX	Alignment	not modelled	87.1	15	Chain: X: PDB Molecule: zinc-transporting atpase; PDBTitle: solution structure of the n-terminal domain of the zinc(ii) atpase2 ziaa in its apo form
30	d1afia	Alignment	not modelled	86.9	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
31	c1yg0A	Alignment	not modelled	86.1	12	PDB header: metal transport Chain: A: PDB Molecule: cop associated protein; PDBTitle: solution structure of apo-copp from helicobacter pylori
32	c2kt2A	Alignment	not modelled	86.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: mercuric reductase; PDBTitle: structure of nmera, the n-terminal hma domain of tn501 mercuric2 reductase
33	d1osda	Alignment	not modelled	85.8	18	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
34	c1y3kA	Alignment	not modelled	83.8	10	PDB header: hydrolase Chain: A: PDB Molecule: copper-transferring atpase 1; PDBTitle: solution structure of the apo form of the fifth domain of2 menkes protein
35	c2kpA	Alignment	not modelled	77.7	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1203; PDBTitle: solution nmr structure of protein atu1203 from agrobacterium2 tumefaciens. northeast structural genomics consortium (nesg) target3 att10, ontario center for structural proteomics target atc1183
36	d1qupa2	Alignment	not modelled	77.3	19	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
37	d2ggpb1	Alignment	not modelled	76.4	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
38	c1jk9D	Alignment	not modelled	73.7	19	PDB header: oxidoreductase Chain: D: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: heterodimer between h48f-ysod1 and yccs
39	d1mwza	Alignment	not modelled	73.6	27	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
40	d1sb6a	Alignment	not modelled	73.5	13	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
41	c2gcfA	Alignment	not modelled	72.5	18	PDB header: hydrolase Chain: A: PDB Molecule: cation-transferring atpase pacs; PDBTitle: solution structure of the n-terminal domain of the copper(i) atpase2 pacs in its apo form
42	d1cc8a	Alignment	not modelled	70.0	13	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
43	c2rogA	Alignment	not modelled	68.6	14	PDB header: metal binding protein Chain: A: PDB Molecule: heavy metal binding protein; PDBTitle: solution structure of thermus thermophilus hb8 ttha17182 protein in living e. coli cells
44	c2aj1A	Alignment	not modelled	68.1	13	PDB header: hydrolase Chain: A: PDB Molecule: probable cadmium-transferring atpase; PDBTitle: solution structure of apocada
45	c2crlA	Alignment	not modelled	66.8	21	PDB header: chaperone Chain: A: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: the apo form of hma domain of copper chaperone for2 superoxide dismutase
46	c3j09A	Alignment	not modelled	65.9	15	PDB header: hydrolase, metal transport Chain: A: PDB Molecule: copper-exporting p-type atpase a; PDBTitle: high resolution helical reconstruction of the bacterial p-type atpase2 copper transporter copa
47	c1qupA	Alignment	not modelled	65.6	19	PDB header: chaperone Chain: A: PDB Molecule: superoxide dismutase 1 copper chaperone; PDBTitle: crystal structure of the copper chaperone for superoxide2 dismutase
48	c2yvxD	Alignment	not modelled	61.9	12	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgte; PDBTitle: crystal structure of magnesium transporter mgte
49	d2cu6a1	Alignment	not modelled	55.8	25	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
50	d1uwda	Alignment	not modelled	53.9	14	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
51	c1yj7A	Alignment	not modelled	49.8	16	PDB header: protein transport Chain: A: PDB Molecule: escj; PDBTitle: crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
52	c2kyzA	Alignment	not modelled	39.9	13	PDB header: metal binding protein Chain: A: PDB Molecule: heavy metal binding protein; PDBTitle: nmr structure of heavy metal binding protein tm0320 from thermotoga2 maritima
53	d2vv5a2	Alignment	not modelled	38.3	14	Fold: Ferredoxin-like Superfamily: Mechanosensitive channel protein MscS (YggB), C-terminal domain Family: Mechanosensitive channel protein MscS (YggB), C-terminal domain
54	c2yy3B	Alignment	not modelled	32.3	12	PDB header: translation Chain: B: PDB Molecule: elongation factor 1-beta; PDBTitle: crystal structure of translation elongation factor ef-1

55	c3c6fD	Alignment	not modelled	29.7	8	beta from2 <i>pyrococcus horikoshii</i> PDB header: structural genomics, unknown function Chain: D: PDB Molecule: yef protein; PDBTitle: crystal structure of protein bsu07140 from bacillus subtilis
56	c1ciaA	Alignment	not modelled	26.4	17	PDB header: transmembrane protein Chain: A: PDB Molecule: colicin ia; PDBTitle: colicin ia
57	c1vs3B	Alignment	not modelled	25.0	21	PDB header: isomerase Chain: B: PDB Molecule: tRNA pseudouridine synthase a; PDBTitle: crystal structure of the tRNA pseudouridine synthase trua from thermus2 <i>thermophilus</i> hb8
58	c3InoA	Alignment	not modelled	23.9	15	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of domain of unknown function duf59 from2 <i>bacillus anthracis</i>
59	c3fryB	Alignment	not modelled	21.1	15	PDB header: hydrolase Chain: B: PDB Molecule: probable copper-exporting p-type atpase a; PDBTitle: crystal structure of the copA c-terminal metal binding domain
60	d2nwwa1	Alignment	not modelled	20.9	7	Fold: Proton glutamate symport protein Superfamily: Proton glutamate symport protein Family: Proton glutamate symport protein
61	c2k9yB	Alignment	not modelled	19.6	21	PDB header: transferase Chain: B: PDB Molecule: ephrin type-a receptor 2; PDBTitle: ephA2 dimeric structure in the lipidic bicelle at pH 5.0
62	c2k9yA	Alignment	not modelled	19.6	21	PDB header: transferase Chain: A: PDB Molecule: ephrin type-a receptor 2; PDBTitle: ephA2 dimeric structure in the lipidic bicelle at pH 5.0
63	c2mltA	Alignment	not modelled	18.0	23	PDB header: toxin (hemolytic polypeptide) Chain: A: PDB Molecule: melittin; PDBTitle: melittin
64	c2mltB	Alignment	not modelled	18.0	23	PDB header: toxin (hemolytic polypeptide) Chain: B: PDB Molecule: melittin; PDBTitle: melittin
65	c2hdIA	Alignment	not modelled	17.9	35	PDB header: protein transport, antimicrobial protein Chain: A: PDB Molecule: colicin i receptor; PDBTitle: crystal structure of the colicin i receptor cir from e.coli in complex2 with receptor binding domain of colicin ia.
66	d1fe0a	Alignment	not modelled	16.6	19	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
67	c1bh1A	Alignment	not modelled	15.6	23	PDB header: toxin Chain: A: PDB Molecule: melittin; PDBTitle: structural studies of d-pro melittin, nmr, 20 structures
68	d1jb0i	Alignment	not modelled	12.7	19	Fold: Single transmembrane helix Superfamily: Subunit VIII of photosystem I reaction centre, Psal Family: Subunit VIII of photosystem I reaction centre, Psal
69	c1a87A	Alignment	not modelled	12.7	11	PDB header: bacteriocin Chain: A: PDB Molecule: colicin n; PDBTitle: colicin n
70	d1a87a	Alignment	not modelled	12.7	11	Fold: Toxins' membrane translocation domains Superfamily: Colicin Family: Colicin
71	c3lkxB	Alignment	not modelled	12.5	19	PDB header: chaperone Chain: B: PDB Molecule: nascent polypeptide-associated complex subunit alpha; PDBTitle: human nac dimerization domain
72	d2gufa1	Alignment	not modelled	12.0	30	Fold: Transmembrane beta-barrels Superfamily: Porins Family: Ligand-gated protein channel
73	d2yvxa3	Alignment	not modelled	12.0	9	Fold: MgtE membrane domain-like Superfamily: MgtE membrane domain-like Family: MgtE membrane domain-like
74	d1f7ua3	Alignment	not modelled	11.9	11	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Arginyl-tRNA synthetase (ArgRS), N-terminal 'additional' domain Family: Arginyl-tRNA synthetase (ArgRS), N-terminal 'additional' domain
75	c2bbjB	Alignment	not modelled	11.0	11	PDB header: metal transport/membrane protein Chain: B: PDB Molecule: divalent cation transport-related protein; PDBTitle: crystal structure of the corA mg2+ transporter
76	d1qmgA1	Alignment	not modelled	10.9	22	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: Acetoxyhydroxy acid isomeroreductase (ketol-acid reductoisomerase, KARI)
77	d2b3ya2	Alignment	not modelled	10.9	48	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
78	c1f7uA	Alignment	not modelled	10.8	11	PDB header: ligase/rna Chain: A: PDB Molecule: arginyl-tRNA synthetase; PDBTitle: crystal structure of the arginyl-tRNA synthetase complexed with the2 tRNA(arginyl) and l-arg
79	c2k1hA	Alignment	not modelled	10.7	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein ser13; PDBTitle: solution nmr structure of ser13 from staphylococcus epidermidis.2 northeast structural genomics consortium target ser13
80	d1xhja	Alianment	not modelled	10.6	13	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like

				Family:NifU C-terminal domain-like		
81	c2ki0A_	Alignment	not modelled	10.6	13	PDB header: de novo protein Chain: A: PDB Molecule: ds119; PDBTitle: nmr structure of a de novo designed beta alpha beta
82	c3ibwA_	Alignment	not modelled	10.4	29	PDB header: transferase Chain: A: PDB Molecule: gtp pyrophosphokinase; PDBTitle: crystal structure of the act domain from gtp2 pyrophosphokinase of chlorobium tepidum. northeast3 structural genomics consortium target ctr148a
83	d1ydx2A_	Alignment	not modelled	10.2	15	Fold: DNA methylase specificity domain Superfamily: DNA methylase specificity domain Family: Type I restriction modification DNA specificity domain
84	c2e2xA_	Alignment	not modelled	10.0	11	PDB header: signaling protein Chain: A: PDB Molecule: neurofibromin; PDBTitle: sec14 homology module of neurofibromin in complex with2 phosphatylethanolamine
85	c3g74B_	Alignment	not modelled	9.9	33	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: protein of unknown function; PDBTitle: crystal structure of a functionally unknown protein from eubacterium2 ventriosum atcc 27560
86	c3gdzA_	Alignment	not modelled	9.8	18	PDB header: ligase Chain: A: PDB Molecule: arginyl-tRNA synthetase; PDBTitle: crystal structure of arginyl-tRNA synthetase from klebsiella2 pneumoniae subsp. pneumoniae
87	d2ffma1	Alignment	not modelled	9.6	5	Fold: Hypothetical protein SAV1430 Superfamily: Hypothetical protein SAV1430 Family: Hypothetical protein SAV1430
88	c3qlbA_	Alignment	not modelled	9.6	20	PDB header: metal transport Chain: A: PDB Molecule: enantio-pyocheulin receptor; PDBTitle: enantio-pyocheulin outer membrane tonB-dependent transporter from2 pseudomonas fluorescens bound to the ferri-enantio-pyocheulin
89	d1s7ba_	Alignment	not modelled	9.6	16	Fold: Multidrug resistance efflux transporter EmrE Superfamily: Multidrug resistance efflux transporter EmrE Family: Multidrug resistance efflux transporter EmrE
90	d2phcb2	Alignment	not modelled	9.5	17	Fold: DCoH-like Superfamily: PH0987 N-terminal domain-like Family: PH0987 N-terminal domain-like
91	c3g7sA_	Alignment	not modelled	9.3	11	PDB header: ligase Chain: A: PDB Molecule: long-chain-fatty-acid-coa ligase (fadd-1); PDBTitle: crystal structure of a long-chain-fatty-acid-coa ligase2 (fadd1) from archaeoglobus fulgidus
92	d1cia1	Alignment	not modelled	9.2	15	Fold: Toxins' membrane translocation domains Superfamily: Colicin Family: Colicin
93	c3iplB_	Alignment	not modelled	8.9	10	PDB header: ligase Chain: B: PDB Molecule: 2-succinylbenzoate-coa ligase; PDBTitle: crystal structure of o-succinylbenzoic acid-coa ligase from2 staphylococcus aureus subsp. aureus mu50
94	d1cz5a1	Alignment	not modelled	8.7	22	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Cdc48 N-terminal domain-like
95	d2cfxa2	Alignment	not modelled	8.7	7	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
96	c2jnvA_	Alignment	not modelled	8.6	11	PDB header: metal transport Chain: A: PDB Molecule: nifu-like protein 1, chloroplast; PDBTitle: solution structure of c-terminal domain of nifu-like2 protein from oryza sativa
97	d2cyya2	Alignment	not modelled	8.2	4	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
98	c2y9jt_	Alignment	not modelled	8.2	16	PDB header: protein transport Chain: T: PDB Molecule: protein prgh; PDBTitle: three-dimensional model of salmonella's needle complex at2 subnanometer resolution
99	d1dd5a_	Alignment	not modelled	8.1	12	Fold: RRF/rRNA synthetase additional domain-like Superfamily: Ribosome recycling factor, RRF Family: Ribosome recycling factor, RRF