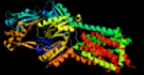
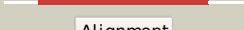
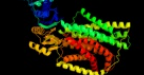
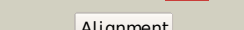
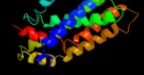
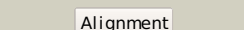
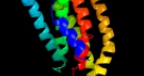
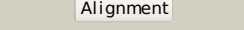
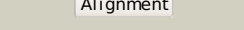
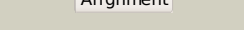
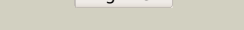
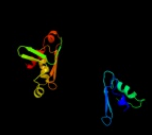
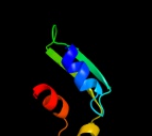


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P76398
Date	Thu Jan 5 12:22:39 GMT 2012
Unique Job ID	bba10a0ebc260423

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3k07A_	 Alignment		100.0	22	PDB header: transport protein Chain: A: PDB Molecule: cation efflux system protein cusa; PDBTitle: crystal structure of cusa
2	cloy8A_	 Alignment		100.0	29	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
3	c3aqbB_	 Alignment		100.0	15	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 thrmophilus
4	dliwga8	 Alignment		100.0	30	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
5	dliwga7	 Alignment		100.0	39	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
6	dliwga1	 Alignment		99.9	30	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	 Alignment		99.7	25	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	 Alignment		99.5	32	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	 Alignment		99.3	11	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	 Alignment		98.9	16	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	 Alignment		97.4	20	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_	Alignment		95.9	20	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of domains 3 and 4 of human atp7b
13	c2ew9A_	Alignment		95.7	14	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of apowln5-6
14	c2rmlA_	Alignment		94.6	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
15	d1q8la_	Alignment		89.5	18	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
16	c2kkaA_	Alignment		88.9	13	PDB header: metal transport Chain: A: PDB Molecule: putative heavy metal transporter; PDBTitle: structure of the zinc binding domain of the atpase hma4
17	d1s6ua_	Alignment		88.4	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
18	d2aw0a_	Alignment		88.4	26	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
19	d2qifa1	Alignment		88.3	19	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
20	c2l3mA_	Alignment		88.0	15	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
21	d1cpza_	Alignment	not modelled	87.3	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
22	d1osda_	Alignment	not modelled	87.3	19	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
23	d1afia_	Alignment	not modelled	86.4	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
24	c1yjrA_	Alignment	not modelled	86.3	9	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
25	d1p6ta2	Alignment	not modelled	86.2	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
26	c2ofhX_	Alignment	not modelled	86.2	11	PDB header: hydrolase, membrane protein 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
27	d1p6ta1	Alignment	not modelled	86.1	13	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
28	c2ga7A_	Alignment	not modelled	85.8	24	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)
29	c2dvcX_	Alignment	not modelled	85.2	15	PDB header: hydrolase Chain: X: PDB Molecule: copper-transporting atpase ran1;

29	c9uxaA	Alignment	not modelled	83.2	13	PDBTitle: crystal structure of a copper binding domain from hma7, a p-2 type atpase
30	d1kvja	Alignment	not modelled	85.2	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
31	c2ldiA	Alignment	not modelled	84.6	11	PDB header: hydrolase Chain: A: PDB Molecule: zinc-transporting atpase; PDBTitle: nmr solution structure of ziaa sub mutant
32	c1y3kA	Alignment	not modelled	83.7	7	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 1; PDBTitle: solution structure of the apo form of the fifth domain of2 menkes protein
33	c2yvxD	Alignment	not modelled	82.0	12	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgte; PDBTitle: crystal structure of magnesium transporter mgte
34	c2kt2A	Alignment	not modelled	76.1	13	PDB header: oxidoreductase Chain: A: PDB Molecule: mercuric reductase; PDBTitle: structure of nmera, the n-terminal hma domain of tn501 mercuric2 reductase
35	c1yg0A	Alignment	not modelled	68.1	13	PDB header: metal transport Chain: A: PDB Molecule: cop associated protein; PDBTitle: solution structure of apo-copp from helicobacter pylori
36	c2aj1A	Alignment	not modelled	67.2	13	PDB header: hydrolase Chain: A: PDB Molecule: probable cadmium-transporting atpase; PDBTitle: solution structure of apocada
37	d1uwda	Alignment	not modelled	66.6	19	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
38	d2cu6a1	Alignment	not modelled	65.6	23	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
39	c2gcfA	Alignment	not modelled	60.2	9	PDB header: hydrolase Chain: A: PDB Molecule: cation-transporting atpase pacs; PDBTitle: solution structure of the n-terminal domain of the copppe(i) atpase2 pacs in its apo form
40	d1mwza	Alignment	not modelled	56.3	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
41	c1jk9D	Alignment	not modelled	55.9	7	PDB header: oxidoreductase Chain: D: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: heterodimer between h48f-ysoD1 and yccs
42	d1qupa2	Alignment	not modelled	54.9	7	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
43	d2ggpb1	Alignment	not modelled	53.9	7	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
44	c3j09A	Alignment	not modelled	53.4	13	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
45	c2zztA	Alignment	not modelled	53.0	0	PDB header: transport protein Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the cytosolic domain of the cation2 diffusion facilitator family protein
46	c1yj7A	Alignment	not modelled	51.6	10	PDB header: protein transport Chain: A: PDB Molecule: escj; PDBTitle: crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
47	c1ciiA	Alignment	not modelled	49.5	12	PDB header: transmembrane protein Chain: A: PDB Molecule: colicin ia; PDBTitle: colicin ia
48	c2k2pA	Alignment	not modelled	45.9	5	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
49	c2rogA	Alignment	not modelled	42.7	16	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
50	c1qupa	Alignment	not modelled	42.0	7	PDB header: chaperone Chain: A: PDB Molecule: superoxide dismutase 1 copper chaperone; PDBTitle: crystal structure of the copper chaperone for superoxide2 dismutase
51	c3lnoA	Alignment	not modelled	40.8	16	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of domain of unknown function duf59 from2 bacillus anthracis
52	c2crlA	Alignment	not modelled	40.1	23	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
53	d2nwwa1	Alignment	not modelled	39.4	9	Fold: Proton glutamate symport protein Superfamily: Proton glutamate symport protein Family: Proton glutamate symport protein
54	d2cfxa2	Alignment	not modelled	37.2	0	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
						PDB header: oxidoreductase

55	c1nwaA_	Alignment	not modelled	35.0	21	Chain: A: PDB Molecule: peptide methionine sulfoxide reductase msra; PDBTitle: structure of mycobacterium tuberculosis methionine2 sulfoxide reductase a in complex with protein-bound3 methionine
56	d1nwaa_	Alignment	not modelled	35.0	21	Fold: Ferredoxin-like Superfamily: Peptide methionine sulfoxide reductase Family: Peptide methionine sulfoxide reductase
57	d1sb6a_	Alignment	not modelled	33.4	7	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
58	c2bbjB_	Alignment	not modelled	32.5	15	PDB header: metal transport/membrane protein Chain: B: PDB Molecule: divalent cation transport-related protein; PDBTitle: crystal structure of the cora mg2+ transporter
59	d2cyya2	Alignment	not modelled	30.9	4	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
60	d2vv5a2	Alignment	not modelled	29.9	14	Fold: Ferredoxin-like Superfamily: Mechanosensitive channel protein MscS (YggB), C-terminal domain Family: Mechanosensitive channel protein MscS (YggB), C-terminal domain
61	c2yy3B_	Alignment	not modelled	29.3	4	PDB header: translation Chain: B: PDB Molecule: elongation factor 1-beta; PDBTitle: crystal structure of translation elongation factor ef-1 beta from2 pyrococcus horikoshii
62	d1cc8a_	Alignment	not modelled	29.3	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
63	d2cg4a2	Alignment	not modelled	26.3	5	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
64	c2kncA_	Alignment	not modelled	25.9	13	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iiB; PDBTitle: platelet integrin alfaIIB-beta3 transmembrane-cytoplasmic2 heterocomplex
65	d2phcb2	Alignment	not modelled	23.9	16	Fold: DCoH-like Superfamily: PH0987 N-terminal domain-like Family: PH0987 N-terminal domain-like
66	c3g7sA_	Alignment	not modelled	23.7	12	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
67	c2zbcH_	Alignment	not modelled	21.3	7	PDB header: transcription Chain: H: PDB Molecule: 83aa long hypothetical transcriptional regulator asnc; PDBTitle: crystal structure of sts042, a stand-alone ram module protein, from2 hyperthermophilic archaeon sulfolobus tokodaii strain7.
68	c3bqhA_	Alignment	not modelled	21.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: peptide methionine sulfoxide reductase msra/msrb; PDBTitle: structure of the central domain (msra) of neisseria meningitidis pilb2 (oxidized form)
69	c2e1cA_	Alignment	not modelled	20.2	4	PDB header: transcription/dna Chain: A: PDB Molecule: putative hth-type transcriptional regulator ph1519; PDBTitle: structure of putative hth-type transcriptional regulator ph1519/dna2 complex
70	c2kyzA_	Alignment	not modelled	20.0	17	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
71	c2jnvA_	Alignment	not modelled	18.8	16	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
72	d1ilga2	Alignment	not modelled	17.6	7	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
73	c3iplB_	Alignment	not modelled	16.7	9	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
74	c2e1aD_	Alignment	not modelled	16.6	11	PDB header: transcription Chain: D: PDB Molecule: 75aa long hypothetical regulatory protein asnc; PDBTitle: crystal structure of ffrp-dm1
75	c2djwF_	Alignment	not modelled	15.9	13	PDB header: unknown function Chain: F: PDB Molecule: probable transcriptional regulator, asnc family; PDBTitle: crystal structure of ttha0845 from thermus thermophilus hb8
76	c3e0mB_	Alignment	not modelled	15.6	23	PDB header: oxidoreductase Chain: B: PDB Molecule: peptide methionine sulfoxide reductase msra/msrb PDBTitle: crystal structure of fusion protein of msra and msrb
77	c3aqoD_	Alignment	not modelled	14.6	18	PDB header: membrane protein Chain: D: PDB Molecule: probable secdf protein-export membrane protein; PDBTitle: structure and function of a membrane component secdf that enhances2 protein export
78	c2hdiA_	Alignment	not modelled	14.6	12	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.
						PDB header: oxidoreductase

79	c2j89A_	Alignment	not modelled	14.4	16	Chain: A: PDB Molecule: methionine sulfoxide reductase a; PDBTitle: functional and structural aspects of poplar cytosolic and2 plastidial type a methionine sulfoxide reductases
80	d1oeza_	Alignment	not modelled	12.2	18	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: PB1 domain
81	c3s6eB_	Alignment	not modelled	12.0	4	PDB header: rna binding protein Chain: B: PDB Molecule: rna-binding protein 39; PDBTitle: crystal structure of a rna binding motif protein 39 (rbm39) from mus2 musculus at 0.95 a resolution
82	d1jb0i_	Alignment	not modelled	11.9	19	Fold: Single transmembrane helix Superfamily: Subunit VIII of photosystem I reaction centre, Psal Family: Subunit VIII of photosystem I reaction centre, Psal
83	d2gufa1	Alignment	not modelled	11.8	17	Fold: Transmembrane beta-barrels Superfamily: Porins Family: Ligand-gated protein channel
84	c2vbzA_	Alignment	not modelled	11.8	9	PDB header: dna-binding protein Chain: A: PDB Molecule: transcriptional regulatory protein; PDBTitle: feast or famine regulatory protein (rv3291c)from m.2 tuberculosis complexed with l-tryptophan
85	d1xhja_	Alignment	not modelled	11.3	14	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
86	d1a87a_	Alignment	not modelled	10.6	13	Fold: Toxins' membrane translocation domains Superfamily: Colicin Family: Colicin
87	c1a87A_	Alignment	not modelled	10.6	13	PDB header: bacteriocin Chain: A: PDB Molecule: colicin n; PDBTitle: colicin n
88	c3fryB_	Alignment	not modelled	10.4	12	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
89	c3pilA_	Alignment	not modelled	10.1	12	PDB header: oxidoreductase Chain: A: PDB Molecule: peptide methionine sulfoxide reductase; PDBTitle: crystal structure of mxr1 from saccharomyces cerevisiae in reduced2 form
90	c2ki0A_	Alignment	not modelled	10.1	29	PDB header: de novo protein Chain: A: PDB Molecule: ds119; PDBTitle: nmr structure of a de novo designed beta alpha beta
91	d1th5a1	Alignment	not modelled	9.6	22	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
92	c1vbkA_	Alignment	not modelled	9.6	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ph1313; PDBTitle: crystal structure of ph1313 from pyrococcus horikoshii ot3
93	d1ff3a_	Alignment	not modelled	9.5	25	Fold: Ferredoxin-like Superfamily: Peptide methionine sulfoxide reductase Family: Peptide methionine sulfoxide reductase
94	d1vbka2	Alignment	not modelled	9.5	18	Fold: THUMP domain Superfamily: THUMP domain-like Family: THUMP domain
95	c2vv5D_	Alignment	not modelled	9.3	14	PDB header: membrane protein Chain: D: PDB Molecule: small-conductance mechanosensitive channel; PDBTitle: the open structure of msccs
96	d1j27a_	Alignment	not modelled	9.1	12	Fold: Ferredoxin-like Superfamily: Hypothetical protein TT1725 Family: Hypothetical protein TT1725
97	c3eynB_	Alignment	not modelled	9.0	11	PDB header: ligase Chain: B: PDB Molecule: acyl-coenzyme a synthetase acsm2a; PDBTitle: crystal structure of human acyl-coa synthetase medium-chain2 family member 2a (l64p mutation) in a complex with coa
98	d1dt9a3	Alignment	not modelled	8.9	18	Fold: N-terminal domain of eukaryotic peptide chain release factor subunit 1, ERF1 Superfamily: N-terminal domain of eukaryotic peptide chain release factor subunit 1, ERF1 Family: N-terminal domain of eukaryotic peptide chain release factor subunit 1, ERF1
99	c2i88A_	Alignment	not modelled	8.9	6	PDB header: membrane protein Chain: A: PDB Molecule: colicin-e1; PDBTitle: crystal structure of the channel-forming domain of colicin2 e1