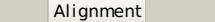
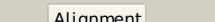
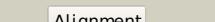
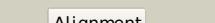


Phyre²

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Description	P24177
Date	Wed Jan 25 15:20:44 GMT 2012
Unique Job ID	8137cd87d7d9248b

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	cloy8A			100.0	66	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	16	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	68	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	79	Fold: Multidrug efflux transporter AcrB transmembrane domain Superfamily: Multidrug efflux transporter AcrB transmembrane domain Family: Multidrug efflux transporter AcrB transmembrane domain
6	dliwga1			99.8	61	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	dliwga5			99.5	59	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
8	dliwga2			99.5	35	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
9	dliwga6			99.1	75	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	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
11	dliwga4			98.3	64	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_			95.9	18	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of domains 3 and 4 of human atp7b
13	c2ew9A_			95.7	15	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of apowIn5-6
14	c2rmlA_			93.7	13	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	d1s6ua_			90.7	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
16	d2aw0a_			90.4	24	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
17	d1cpza_			90.4	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
18	d2qifa1			89.8	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
19	c3dxsX_			89.2	26	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
20	d1kvja_			89.0	30	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
21	c213mA_		not modelled	89.0	24	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
22	d1q8la_		not modelled	88.4	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
23	c1yjrA_		not modelled	87.7	22	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
24	c2ga7A_		not modelled	87.3	28	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	d1p6ta2		not modelled	87.3	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
26	c21dia_		not modelled	87.2	24	PDB header: hydrolase Chain: A: PDB Molecule: zinc-transporting atpase; PDBTitle: nmr solution structure of ziaan sub mutant
27	c2khhA_		not modelled	86.0	15	PDB header: metal transport Chain: A: PDB Molecule: putative heavy metal transporter; PDBTitle: structure of the zinc binding domain of the atpase hma4
28	c1yg0A_		not modelled	85.5	22	PDB header: metal transport Chain: A: PDB Molecule: cop associated protein; PDBTitle: solution structure of apo-copp from helicobacter pylori
29	c24t2A_		not modelled	85.3	18	PDB header: oxidoreductase Chain: A: PDB Molecule: mercuric reductase;

29	c2vka	Alignment	not modelled	85.2	10	PDBTitle: structure of nmera, the n-terminal hma domain of tn501 mercuric2 reductase
30	d1p6ta1	Alignment	not modelled	85.2	24	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
31	d1osda	Alignment	not modelled	84.7	22	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
32	c2yvxD	Alignment	not modelled	84.2	15	PDB header: transport protein Chain: D: PDB Molecule: mg2+ transporter mgtc; PDBTitle: crystal structure of magnesium transporter mgtc
33	d1afia	Alignment	not modelled	84.1	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
34	c2ofhX	Alignment	not modelled	81.7	20	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 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
35	c1y3kA	Alignment	not modelled	80.4	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
36	d2ggpb1	Alignment	not modelled	77.3	24	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
37	d1mwza	Alignment	not modelled	75.7	14	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
38	d1qupa2	Alignment	not modelled	75.6	14	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
39	c2gcfA	Alignment	not modelled	74.8	24	PDB header: hydrolase Chain: A: PDB Molecule: cation-transporting atpase pacs; PDBTitle: solution structure of the n-terminal domain of the copper(i) atpase2 pacs in its apo form PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1203; PDBTitle: solution nmr structure of protein atu1203 from agrobacterium tumefaciens. northeast structural genomics consortium (nesg) target3 att10, ontario center for structural proteomics target atc1183
40	c2k2pA	Alignment	not modelled	74.0	12	PDB header: oxidoreductase Chain: D: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: heterodimer between h48f-ysod1 and yccs
41	c1jk9D	Alignment	not modelled	73.8	16	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
42	c3j09A	Alignment	not modelled	73.5	17	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
43	d1sb6a	Alignment	not modelled	70.9	12	PDB header: hydrolase Chain: A: PDB Molecule: probable cadmium-transporting atpase; PDBTitle: solution structure of apocada
44	c2aj1A	Alignment	not modelled	70.4	9	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
45	c2rogA	Alignment	not modelled	69.8	16	PDB header: chaperone Chain: A: PDB Molecule: superoxide dismutase 1 copper chaperone; PDBTitle: crystal structure of the copper chaperone for superoxide2 dismutase
46	c1qupA	Alignment	not modelled	64.6	14	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
47	c2crlA	Alignment	not modelled	64.3	16	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
48	d1cc8a	Alignment	not modelled	57.1	12	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
49	c1yj7A	Alignment	not modelled	53.8	19	PDB header: protein transport Chain: A: PDB Molecule: escj; PDBTitle: crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
50	d2nwwa1	Alignment	not modelled	53.0	7	Fold: Proton glutamate symport protein Superfamily: Proton glutamate symport protein Family: Proton glutamate symport protein
51	c2kyzA	Alignment	not modelled	47.9	15	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
52	d1pw4a	Alignment	not modelled	43.9	7	Fold: MFS general substrate transporter Superfamily: MFS general substrate transporter Family: Glycerol-3-phosphate transporter
53	d2yvxa3	Alignment	not modelled	42.5	16	Fold: MgtE membrane domain-like Superfamily: MgtE membrane domain-like Family: MgtE membrane domain-like
54	d2cu6a1	Alignment	not modelled	42.3	18	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
						Fold: Alpha-lytic protease prodomain-like

55	d1uwda	Alignment	not modelled	39.7	18	Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
56	c2yy3B	Alignment	not modelled	38.5	6	PDB header: translation Chain: B: PDB Molecule: elongation factor 1-beta; PDBTitle: crystal structure of translation elongation factor ef-1 beta from2 pyrococcus horikoshii Fold: Ferredoxin-like
57	d2vv5a2	Alignment	not modelled	34.0	18	Superfamily: Mechanosensitive channel protein MscS (YggB), C-terminal domain Family: Mechanosensitive channel protein MscS (YggB), C-terminal domain
58	c1ciia	Alignment	not modelled	31.3	15	PDB header: transmembrane protein Chain: A: PDB Molecule: colicin ia; PDBTitle: colicin ia
59	c3fryB	Alignment	not modelled	24.3	10	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	c3lnoA	Alignment	not modelled	23.7	19	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of domain of unknown function duf59 from2 bacillus anthracis
61	c2f1fA	Alignment	not modelled	22.2	15	PDB header: transferase Chain: A: PDB Molecule: acetolactate synthase isozyme iii small subunit; PDBTitle: crystal structure of the regulatory subunit of2 acetohydroxyacid synthase isozyme iii from e. coli
62	c2bbjB	Alignment	not modelled	21.2	11	PDB header: metal transport/membrane protein Chain: B: PDB Molecule: divalent cation transport-related protein; PDBTitle: crystal structure of the cora mg2+ transporter
63	d2cfxa2	Alignment	not modelled	18.3	7	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
64	c1w8xP	Alignment	not modelled	16.9	24	PDB header: virus Chain: P: PDB Molecule: protein p16; PDBTitle: structural analysis of prd1
65	d1fe0a	Alignment	not modelled	16.8	14	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
66	d1f7ua3	Alignment	not modelled	16.6	10	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
67	c2k9yA	Alignment	not modelled	15.3	17	PDB header: transferase Chain: A: PDB Molecule: ephrin type-a receptor 2; PDBTitle: epha2 dimeric structure in the lipidic bicelle at ph 5.0
68	c2k9yB	Alignment	not modelled	15.3	17	PDB header: transferase Chain: B: PDB Molecule: ephrin type-a receptor 2; PDBTitle: epha2 dimeric structure in the lipidic bicelle at ph 5.0
69	d1nvmb2	Alignment	not modelled	14.9	13	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: GAPDH-like
70	d2cyya2	Alignment	not modelled	14.4	9	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
71	c3qlba	Alignment	not modelled	14.1	8	PDB header: metal transport Chain: A: PDB Molecule: enantiopyochelin receptor; PDBTitle: enantiopyochelin outer membrane tonb-dependent transporter from2 pseudomonas fluorescens bound to the ferri-enantiopyochelin
72	d2iuba2	Alignment	not modelled	14.1	30	Fold: Transmembrane helix hairpin Superfamily: Magnesium transport protein CorA, transmembrane region Family: Magnesium transport protein CorA, transmembrane region
73	d2phcb2	Alignment	not modelled	14.0	13	Fold: DCoH-like Superfamily: PH0987 N-terminal domain-like Family: PH0987 N-terminal domain-like
74	d1xhja	Alignment	not modelled	13.9	10	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
75	c2hdia	Alignment	not modelled	13.7	28	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.
76	c3lkxB	Alignment	not modelled	13.5	23	PDB header: chaperone Chain: B: PDB Molecule: nascent polypeptide-associated complex subunit alpha; PDBTitle: human nac dimerization domain
77	c3bdeA	Alignment	not modelled	13.5	0	PDB header: unknown function Chain: A: PDB Molecule: ml15499 protein; PDBTitle: crystal structure of a dabb family protein with a ferredoxin-like fold2 (ml15499) from mesorhizobium loti maff303099 at 1.79 a resolution
78	c3ibwA	Alignment	not modelled	13.3	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
79	d1jb0i	Alignment	not modelled	13.3	19	Fold: Single transmembrane helix Superfamily: Subunit VIII of photosystem I reaction centre, Psal Family: Subunit VIII of photosystem I reaction centre, Psal
						PDB header: bacteriocin

80	c1a87A_	Alignment	not modelled	13.3	15	Chain: A: PDB Molecule: colicin n; PDBTitle: colicin n
81	d1a87a_	Alignment	not modelled	13.3	15	Fold: Toxins' membrane translocation domains Superfamily: Colicin Family: Colicin
82	c2e1aD_	Alignment	not modelled	13.3	14	PDB header: transcription Chain: D: PDB Molecule: 75aa long hypothetical regulatory protein asnc; PDBTitle: crystal structure of ffrp-dm1
83	d1qmga1	Alignment	not modelled	13.2	25	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: Acetohydroxy acid isomerase (ketol-acid reductoisomerase, KARI)
84	c2mltB_	Alignment	not modelled	13.1	14	PDB header: toxin (hemolytic polypeptide) Chain: B: PDB Molecule: melittin; PDBTitle: melittin
85	c2mltA_	Alignment	not modelled	13.1	14	PDB header: toxin (hemolytic polypeptide) Chain: A: PDB Molecule: melittin; PDBTitle: melittin
86	c2zbcH_	Alignment	not modelled	12.7	16	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.
87	c2kssA_	Alignment	not modelled	12.5	24	PDB header: transcription regulator Chain: A: PDB Molecule: carotenogenesis protein cars; PDBTitle: nmr structure of myxococcus xanthus anti-repressor cars1
88	d2cg4a2	Alignment	not modelled	12.5	16	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Lrp/AsnC-like transcriptional regulator C-terminal domain
89	c2zztA_	Alignment	not modelled	12.4	9	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
90	d1cia1	Alignment	not modelled	12.3	13	Fold: Toxins' membrane translocation domains Superfamily: Colicin Family: Colicin
91	c2pc6C_	Alignment	not modelled	12.2	14	PDB header: lyase Chain: C: PDB Molecule: probable acetolactate synthase isozyme iii (small subunit); PDBTitle: crystal structure of putative acetolactate synthase- small subunit2 from nitrosomonas europaea
92	c2z51A_	Alignment	not modelled	12.1	13	PDB header: metal transport Chain: A: PDB Molecule: nifU-like protein 2, chloroplast; PDBTitle: crystal structure of arabidopsis cnfu involved in iron-2 sulfur cluster biosynthesis
93	c2kncA_	Alignment	not modelled	12.0	14	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iiB; PDBTitle: platelet integrin alfa1b-beta3 transmembrane-cytoplasmic2 heterocomplex
94	c3g7sA_	Alignment	not modelled	11.4	17	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
95	c2dvkA_	Alignment	not modelled	11.4	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0130 protein ape0816; PDBTitle: crystal structure of hypothetical protein from aeropyrum pernix
96	c2it3B_	Alignment	not modelled	11.0	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: upf0130 protein ph1069; PDBTitle: structure of ph1069 protein from pyrococcus horikoshii
97	c3c6fD_	Alignment	not modelled	10.9	4	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: yefT protein; PDBTitle: crystal structure of protein bsu07140 from bacillus subtilis
98	d2gufa1	Alignment	not modelled	10.6	28	Fold: Transmembrane beta-barrels Superfamily: Porins Family: Ligand-gated protein channel
99	c3aqoD_	Alignment	not modelled	10.6	16	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