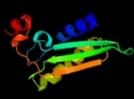
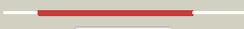
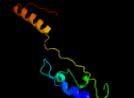
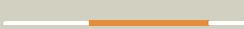
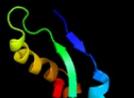


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD1466_(-)_1653237_1653584
Date	Fri Aug 2 13:30:04 BST 2019
Unique Job ID	6b555977b43a5d19

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c5irdA_	 Alignment		100.0	100	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of rv1466 from mycobacterium tuberculosis, a2 protein associated with [fe-s] complex assembly and repair - seattle3 structural genomics center for infectious disease target4 mytud.17486.a
2	c3lnoA_	 Alignment		100.0	34	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of domain of unknown function duf59 from2 bacillus anthracis
3	d1uwda_	 Alignment		100.0	33	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
4	d2cu6a1	 Alignment		100.0	36	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: PaaD-like
5	c3ux2A_	 Alignment		99.8	26	PDB header: immune system Chain: A: PDB Molecule: mip18 family protein fam96a; PDBTitle: crystal structure of domain-swapped fam96a major dimer
6	d1xhja_	 Alignment		95.2	18	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
7	d1veha_	 Alignment		92.0	15	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
8	c2z51A_	 Alignment		87.4	16	PDB header: metal transport Chain: A: PDB Molecule: nifu-like protein 2, chloroplast; PDBTitle: crystal structure of arabidopsis cnfu involved in iron-sulfur cluster2 biosynthesis
9	c1yg0A_	 Alignment		87.4	21	PDB header: metal transport Chain: A: PDB Molecule: cop associated protein; PDBTitle: solution structure of apo-copp from helicobacter pylori
10	c2l3mA_	 Alignment		85.3	11	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
11	c2jnvA_	 Alignment		84.2	19	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

12	c2ofgX_	Alignment		83.6	19	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
13	d2qifa1	Alignment		83.2	13	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
14	c2kkhA_	Alignment		82.9	8	PDB header: metal transport Chain: A: PDB Molecule: putative heavy metal transporter; PDBTitle: structure of the zinc binding domain of the atpase hma4
15	c2kt2A_	Alignment		81.4	22	PDB header: oxidoreductase Chain: A: PDB Molecule: mercuric reductase; PDBTitle: structure of nmera, the n-terminal hma domain of tn501 mercuric2 reductase
16	d1osda_	Alignment		79.9	8	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
17	c4u9rA_	Alignment		79.6	14	PDB header: hydrolase Chain: A: PDB Molecule: czcp cation efflux p1-atpase; PDBTitle: structure of the n-terminal extension from cupriavidus metallidurans2 czcp
18	c2lqba_	Alignment		79.4	15	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: metal binding repeat 2 of the wilson disease protein (atp7b)
19	d1th5a1	Alignment		79.1	13	Fold: Alpha-lytic protease prodomain-like Superfamily: Fe-S cluster assembly (FSCA) domain-like Family: NifU C-terminal domain-like
20	d1afia_	Alignment		78.5	10	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
21	c2ropA_	Alignment	not modelled	78.4	15	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of domains 3 and 4 of human atp7b
22	d1q8la_	Alignment	not modelled	77.4	18	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
23	c2ew9A_	Alignment	not modelled	77.1	18	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: solution structure of apowln5-6
24	d1p6ta2	Alignment	not modelled	76.6	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
25	c4y2ia_	Alignment	not modelled	76.0	11	PDB header: metal transport Chain: A: PDB Molecule: putative metal-binding transport protein; PDBTitle: gold ion bound to golb
26	d1kvja_	Alignment	not modelled	75.6	14	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
27	c2ofhX_	Alignment	not modelled	74.3	21	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
28	d1sb6a_	Alignment	not modelled	74.3	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
29	c2ldia_	Alignment	not modelled	73.2	23	PDB header: hydrolase Chain: A: PDB Molecule: zinc-transporting atpase;

						PDBTitle: nmr solution structure of ziaan sub mutant
30	c2n7yA_	Alignment	not modelled	72.5	11	PDB header: metal binding protein Chain: A: PDB Molecule: copper-transporting atpase 2; PDBTitle: nmr structure of metal-binding domain 1 of atp7b
31	d1p6ta1	Alignment	not modelled	71.8	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
32	d1mwza_	Alignment	not modelled	71.6	9	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
33	d1qupa2	Alignment	not modelled	71.3	8	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
34	d1s6ua_	Alignment	not modelled	70.9	11	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
35	c2k2pA_	Alignment	not modelled	69.4	16	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	c1y3kA_	Alignment	not modelled	69.4	19	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
37	c3dxxX_	Alignment	not modelled	68.2	20	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
38	d2ggpb1	Alignment	not modelled	66.0	15	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
39	c6ff2A_	Alignment	not modelled	64.6	14	PDB header: chaperone Chain: A: PDB Molecule: copper chaperone copz; PDBTitle: copz metallochaperone
40	c1yjrA_	Alignment	not modelled	64.5	20	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
41	d2aw0a_	Alignment	not modelled	63.6	20	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
42	c3j1zP_	Alignment	not modelled	62.8	11	PDB header: metal transport Chain: P: PDB Molecule: cation efflux family protein; PDBTitle: inward-facing conformation of the zinc transporter yiiip revealed by2 cryo-electron microscopy
43	c2rogA_	Alignment	not modelled	61.9	12	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	c4mt1A_	Alignment	not modelled	61.1	17	PDB header: membrane protein, tranport protein Chain: A: PDB Molecule: drug efflux protein; PDBTitle: crystal structure of the neisseria gonorrhoeae mtrd inner membrane2 multidrug efflux pump
45	c1jk9D_	Alignment	not modelled	60.7	8	PDB header: oxidoreductase Chain: D: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: heterodimer between h48f-ysoD1 and yccs
46	d1cc8a_	Alignment	not modelled	59.3	16	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
47	c2gcfA_	Alignment	not modelled	57.4	12	PDB header: hydrolase Chain: A: PDB Molecule: cation-transporting atpase pacs; PDBTitle: solution structure of the n-terminal domain of the copp(II) atpase2 pacs in its apo form
48	c6gzbD_	Alignment	not modelled	56.4	11	PDB header: structural protein Chain: D: PDB Molecule: spore germination protein germ; PDBTitle: tandem germn domains of the sporulation protein germ from bacillus2 subtilis
49	c1qupA_	Alignment	not modelled	52.7	8	PDB header: chaperone Chain: A: PDB Molecule: superoxide dismutase 1 copper chaperone; PDBTitle: crystal structure of the copper chaperone for superoxide dismutase
50	c3w66A_	Alignment	not modelled	51.4	17	PDB header: metal transport Chain: A: PDB Molecule: magnetosome protein mamm; PDBTitle: mamm-ctd d249a and h285a
51	d1ttza_	Alignment	not modelled	49.5	20	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
52	c2rmlA_	Alignment	not modelled	47.5	20	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
53	d2dyja1	Alignment	not modelled	45.7	21	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbFA Family: Ribosome-binding factor A, RbFA
54	c2aj1A_	Alignment	not modelled	44.8	9	PDB header: hydrolase Chain: A: PDB Molecule: probable cadmium-transporting atpase; PDBTitle: solution structure of apocada
55	c1oy8A_	Alignment	not modelled	43.9	20	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
56	c5lq3F_	Alignment	not modelled	42.2	19	PDB header: transport protein Chain: F: PDB Molecule: cmcb; PDBTitle: structures and transport dynamics of the campylobacter jejuni2 multidrug efflux pump cmcb
57	c2v50A_	Alignment	not modelled	42.1	17	PDB header: membrane protein Chain: A: PDB Molecule: multidrug resistance protein mexb; PDBTitle: the missing part of the bacterial mexab-oprm system: structural2 determination of the multidrug exporter mexb
58	c3io1B_	Alignment	not modelled	41.5	10	PDB header: hydrolase Chain: B: PDB Molecule: aminobenzoyl-glutamate utilization protein; PDBTitle: crystal structure of aminobenzoyl-glutamate utilization2 protein from klebsiella pneumoniae
59	c4mnnA_	Alignment	not modelled	39.4	6	PDB header: oxidoreductase Chain: A: PDB Molecule: glutaredoxin related protein; PDBTitle: the crystal structure of sso1120 from sulfolobus solfataricus
60	c2kyzA_	Alignment	not modelled	37.6	12	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
61	c1hyuA_	Alignment	not modelled	37.5	15	PDB header: oxidoreductase Chain: A: PDB Molecule: alkyl hydroperoxide reductase subunit f; PDBTitle: crystal structure of intact ahpf
62	c6h3cC_	Alignment	not modelled	33.5	10	PDB header: signaling protein Chain: C: PDB Molecule: brisc and brca1-a complex member 2; PDBTitle: cryo-em structure of the brisc complex bound to shmt2
63	c2ga7A_	Alignment	not modelled	30.6	14	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)
64	c3j09A_	Alignment	not modelled	30.3	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
65	d1w4ha1	Alignment	not modelled	30.1	15	Fold: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Superfamily: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Family: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex
66	c2qfiB_	Alignment	not modelled	29.8	14	PDB header: transport protein Chain: B: PDB Molecule: ferrous-iron efflux pump fief; PDBTitle: structure of the zinc transporter ylip
67	c6csxA_	Alignment	not modelled	28.9	20	PDB header: transport protein Chain: A: PDB Molecule: multidrug efflux pump subunit acrb; PDBTitle: single particles cryo-em structure of acrb d407a associated with lipid2 bilayer at 3.0 angstrom
68	c2kzfA_	Alignment	not modelled	28.1	15	PDB header: ribosomal protein Chain: A: PDB Molecule: ribosome-binding factor a; PDBTitle: solution nmr structure of the thermotoga maritima protein tm0855 a2 putative ribosome binding factor a
69	d1iloa_	Alignment	not modelled	27.1	18	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
70	c2fgxA_	Alignment	not modelled	26.8	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative thioredoxin; PDBTitle: solution nmr structure of protein ne2328 from nitrosomonas2 europaea. northeast structural genomics consortium target3 net3.
71	d1cpza_	Alignment	not modelled	26.1	9	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
72	c6b71A_	Alignment	not modelled	25.5	23	PDB header: unknown function Chain: A: PDB Molecule: immune modulator a; PDBTitle: aeromonas veronii immune modulator a
73	d1fe0a_	Alignment	not modelled	24.8	18	Fold: Ferredoxin-like Superfamily: HMA, heavy metal-associated domain Family: HMA, heavy metal-associated domain
74	c3qxbB_	Alignment	not modelled	24.6	17	PDB header: isomerase Chain: B: PDB Molecule: putative xylose isomerase; PDBTitle: crystal structure of a putative xylose isomerase (yp_426450.1) from2 rhodospirillum rubrum atcc 11170 at 1.90 a resolution
75	c5tp4B_	Alignment	not modelled	24.1	10	PDB header: hydrolase Chain: B: PDB Molecule: amidase, hydantoinase/carbamoylase family; PDBTitle: crystal structure of a hydantoinase/carbamoylase family amidase from2 burkholderia ambifaria
76	c6fp6X_	Alignment	not modelled	22.9	24	PDB header: metal binding protein Chain: X: PDB Molecule: copper chaperone for superoxide dismutase; PDBTitle: complex of human cu,zn sod1 with the human copper chaperone for sod12 in a compact conformation
77	d1t4aa_	Alignment	not modelled	22.8	16	Fold: PurS-like Superfamily: PurS-like Family: PurS subunit of FGAM synthetase
78	d1tz9a_	Alignment	not modelled	21.9	10	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: UxuA-like
79	d2cya1	Alignment	not modelled	21.7	13	Fold: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Superfamily: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Family: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex

80	c5ho5D_	Alignment	not modelled	21.7	19	PDB header: metal transport Chain: D: PDB Molecule: magnetosome protein mamb; PDBTitle: mamb
81	c2cr1A_	Alignment	not modelled	21.5	24	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
82	c3hd5A_	Alignment	not modelled	21.4	17	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsba; PDBTitle: crystal structure of a thiol:disulfide interchange protein2 dsba from bordetella parapertussis
83	d2qfia1	Alignment	not modelled	21.3	19	Fold: Alpha-lytic protease prodomain-like Superfamily: Cation efflux protein cytoplasmic domain-like Family: Cation efflux protein cytoplasmic domain-like
84	c3fryB_	Alignment	not modelled	21.1	11	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
85	d1w85i_	Alignment	not modelled	20.6	19	Fold: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Superfamily: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Family: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex
86	c1zwvA_	Alignment	not modelled	19.6	12	PDB header: transferase Chain: A: PDB Molecule: lipoaamide acyltransferase component of branched- PDBTitle: solution structure of the subunit binding domain (hbsbd) of2 the human mitochondrial branched-chain alpha-ketoacid3 dehydrogenase
87	d1z6ma1	Alignment	not modelled	19.3	12	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbA-like
88	d1vq3a_	Alignment	not modelled	19.2	16	Fold: PurS-like Superfamily: PurS-like Family: PurS subunit of FGAM synthetase
89	c2vxob_	Alignment	not modelled	18.9	7	PDB header: ligase Chain: B: PDB Molecule: gmp synthase [glutamine-hydrolyzing]; PDBTitle: human gmp synthetase in complex with xmp
90	c3dv0l_	Alignment	not modelled	18.9	19	PDB header: oxidoreductase/transferase Chain: I: PDB Molecule: dihydropolyllysine-residue acetyltransferase PDBTitle: snapshots of catalysis in the e1 subunit of the pyruvate2 dehydrogenase multi-enzyme complex
91	d1r7ha_	Alignment	not modelled	18.7	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
92	d1josa_	Alignment	not modelled	18.4	21	Fold: Alpha-lytic protease prodomain-like Superfamily: Ribosome-binding factor A, RbfA Family: Ribosome-binding factor A, RbfA
93	d3bypa1	Alignment	not modelled	18.2	15	Fold: Alpha-lytic protease prodomain-like Superfamily: Cation efflux protein cytoplasmic domain-like Family: Cation efflux protein cytoplasmic domain-like
94	c1zy8M_	Alignment	not modelled	17.9	13	PDB header: oxidoreductase Chain: M: PDB Molecule: pyruvate dehydrogenase protein x component, PDBTitle: the crystal structure of dihydrolipoamide dehydrogenase and2 dihydrolipoamide dehydrogenase-binding protein (didomain)3 subcomplex of human pyruvate dehydrogenase complex.
95	c4xvwK_	Alignment	not modelled	17.6	12	PDB header: isomerase Chain: K: PDB Molecule: dsba-like protein; PDBTitle: crystal structure of proteus mirabilis scsc in a compact conformation
96	d2d4pa1	Alignment	not modelled	17.1	22	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: N-acetyl transferase, NAT
97	c2eq7C_	Alignment	not modelled	17.1	7	PDB header: oxidoreductase Chain: C: PDB Molecule: 2-oxoglutarate dehydrogenase e2 component; PDBTitle: crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdo
98	c4j1jA_	Alignment	not modelled	17.1	23	PDB header: viral protein/dna Chain: A: PDB Molecule: nucleocapsid; PDBTitle: leanyer orthobunyavirus nucleoprotein-ssdna complex
99	c4euyA_	Alignment	not modelled	17.0	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of thioredoxin-like protein bce_0499 from bacillus2 cereus atcc 10987