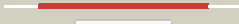



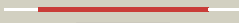




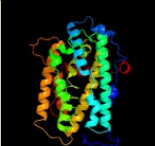











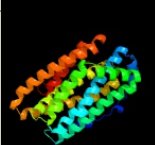


Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD0233_(nrdb)_278585_279529
 Date Tue Jul 23 14:50:29 BST 2019
 Unique Job ID 79eb9b9f57e5ee71

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3ee4A_	 Alignment		100.0	100	PDB header: oxidoreductase Chain: A: PDB Molecule: probable ribonucleoside-diphosphate reductase; PDBTitle: r2-like ligand binding mn/fe oxidase from m. tuberculosis
2	c2rccC_	 Alignment		100.0	16	PDB header: oxidoreductase Chain: C: PDB Molecule: ribonucleoside-diphosphate reductase subunit beta; PDBTitle: crystal structure of putative class i ribonucleotide reductase2 (np_241368.1) from bacillus halodurans at 1.90 a resolution
3	c1yfdA_	 Alignment		100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase 1 beta chain; PDBTitle: crystal structure of the y122h mutant of ribonucleotide reductase r22 protein from e. coli
4	c4bmtB_	 Alignment		100.0	15	PDB header: oxidoreductase Chain: B: PDB Molecule: ribonucleoside-diphosphate reductase subunit beta; PDBTitle: crystal structure of ribonucleotide reductase di-iron nrdf2 from bacillus cereus
5	c6cwqA_	 Alignment		100.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleotide reductase; PDBTitle: x-ray crystal structure of flavobacterium johnsoniae dimanganese(ii)2 ribonucleotide reductase beta subunit (as-isolated)
6	d1mxra_	 Alignment		100.0	18	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
7	c4hr0A_	 Alignment		100.0	34	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleotide reductase small subunit; PDBTitle: r2-like ligand-binding oxidase with aerobically reconstituted metal2 cofactor
8	d1r2fa_	 Alignment		100.0	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
9	c5olkD_	 Alignment		100.0	16	PDB header: oxidoreductase Chain: D: PDB Molecule: ribonucleoside-diphosphate reductase, beta subunit 1; PDBTitle: crystal structure of the atp-cone-containing nrdb from2 leeuwenhoekiella blandensis
10	d1jk0a_	 Alignment		100.0	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
11	d1luzra_	 Alignment		100.0	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like

12	d1smsa_	Alignment		100.0	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
13	c1r2fB_	Alignment		100.0	15	PDB header: oxidoreductase Chain: B: PDB Molecule: protein (ribonucleotide reductase r2); PDBTitle: ribonucleotide reductase r2f protein from salmonella2 typhimurium
14	c1syyA_	Alignment		100.0	22	PDB header: replication,oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase beta chain; PDBTitle: crystal structure of the r2 subunit of ribonucleotide reductase from2 chlamydia trachomatis
15	d1syya_	Alignment		100.0	22	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
16	d1oquc_	Alignment		100.0	16	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
17	c4n83F_	Alignment		100.0	13	PDB header: oxidoreductase Chain: F: PDB Molecule: ribonucleoside-diphosphate reductase subunit beta; PDBTitle: x-ray crystal structure of streptococcus sanguinis dimanganese(ii)-2 nrdf
18	c4dr0A_	Alignment		100.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase subunit beta; PDBTitle: crystal structure of bacillus subtilis dimanganese(ii) nrdf
19	d3dhza1	Alignment		100.0	16	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
20	c1h0oA_	Alignment		100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase; PDBTitle: cobalt substitution of mouse r2 ribonucleotide reductase to2 model the reactive diferrous state
21	c1smqD_	Alignment	not modelled	100.0	15	PDB header: oxidoreductase Chain: D: PDB Molecule: ribonucleoside-diphosphate reductase small chain PDBTitle: structure of the ribonucleotide reductase rnr2 homodimer2 from saccharomyces cerevisiae
22	c6qrzA_	Alignment	not modelled	100.0	37	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase; PDBTitle: crystal structure of r2-like ligand-binding oxidase from sulfolobus2 acidocaldarius solved by 3d micro-crystal electron diffraction
23	c6gp2A_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleoside-diphosphate reductase beta chain; PDBTitle: ribonucleotide reductase class ie r2 from mesoplasma florum, dopa-2 active form
24	d1w68a_	Alignment	not modelled	100.0	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
25	c3hf1B_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: B: PDB Molecule: ribonucleoside-diphosphate reductase subunit m2 b; PDBTitle: crystal structure of human p53r2
26	c2o1zA_	Alignment	not modelled	100.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleotide reductase subunit r2; PDBTitle: plasmodium vivax ribonucleotide reductase subunit r2 (pv086155)
27	c2p1iA_	Alignment	not modelled	100.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: ribonucleotide reductase, small chain; PDBTitle: plasmodium yoelii ribonucleotide reductase subunit r2 (py03671)
						PDB header: oxidoreductase

28	c2vuxB_	Alignment	not modelled	100.0	19	Chain: B; PDB Molecule: ribonucleoside-diphosphate reductase subunit m2 b; PDBTitle: human ribonucleotide reductase, subunit m2 b
29	d1jk0b_	Alignment	not modelled	100.0	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
30	c4a58B_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: B; PDB Molecule: ribonucleoside-diphosphate reductase small chain; PDBTitle: crystal structure of a monometal state of the2 ribonucleotide-reductase small subunit from epstein-barr virus in3 orthorhombic space group
31	c5uxgB_	Alignment	not modelled	100.0	21	PDB header: lyase Chain: B; PDB Molecule: aldehyde deformylating oxygenase; PDBTitle: protein 84 with aldehyde deformylating oxygenase activity from2 sulfolobus tokodaii (monoclinic)
32	c6d9fA_	Alignment	not modelled	100.0	17	PDB header: lyase Chain: A; PDB Molecule: putative vlmh homolog; PDBTitle: protein 60 with aldehyde deformylating oxidase activity from2 kitasatospora setae
33	d1mhyd_	Alignment	not modelled	98.9	13	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
34	c5hyhA_	Alignment	not modelled	98.8	15	PDB header: metal binding protein Chain: A; PDB Molecule: uncharacterized protein; PDBTitle: cmli (chemically reduced state), arylamine oxygenase of2 chloramphenicol biosynthetic pathway
35	d1mtyd_	Alignment	not modelled	98.8	11	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
36	d2inca1	Alignment	not modelled	98.8	12	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
37	c3dhiA_	Alignment	not modelled	98.7	12	PDB header: oxidoreductase Chain: A; PDB Molecule: toluene 4-monooxygenase hydroxylase alpha subunit; PDBTitle: crystal structure of reduced toluene 4-monooxygenase hydroxylase2 complexed with effector protein
38	c3chtA_	Alignment	not modelled	98.6	15	PDB header: oxidoreductase Chain: A; PDB Molecule: p-aminobenzoate n-oxygenase; PDBTitle: crystal structure of di-iron aurf with partially bound ligand
39	d1afra_	Alignment	not modelled	98.3	16	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
40	c3pw1A_	Alignment	not modelled	98.2	14	PDB header: oxidoreductase Chain: A; PDB Molecule: phenylacetic acid degradation protein paaa; PDBTitle: the phenylacetyl-coa monooxygenase paaac subcomplex with phenylacetyl-2 coa
41	d1za0a1	Alignment	not modelled	98.2	20	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
42	d2incb1	Alignment	not modelled	98.2	16	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
43	c4mudA_	Alignment	not modelled	98.2	14	PDB header: oxidoreductase Chain: A; PDB Molecule: ring oxydation complex/ phenylacetic acid degradation PDBTitle: crystal structure of a ring oxydation complex/ phenylacetic acid2 degradation-like protein (sso1313) from sulfolobus solfataricus p2 at3 2.43 a resolution
44	c2inpD_	Alignment	not modelled	98.0	9	PDB header: oxidoreductase Chain: D; PDB Molecule: phenol hydroxylase component phi; PDBTitle: structure of the phenol hydroxylase-regulatory protein2 complex
45	c3dhgB_	Alignment	not modelled	98.0	15	PDB header: oxidoreductase Chain: B; PDB Molecule: toluene 4-monooxygenase hydroxylase beta subunit; PDBTitle: crystal structure of toluene 4-monooxygenase hydroxylase
46	c2innA_	Alignment	not modelled	98.0	10	PDB header: oxidoreductase Chain: A; PDB Molecule: phenol hydroxylase component phn; PDBTitle: structure of the phenol hydroxylase-regulatory protein complex
47	c4quwA_	Alignment	not modelled	97.9	17	PDB header: lyase Chain: A; PDB Molecule: aldehyde decarbonylase; PDBTitle: crystal structure of the apo form of cyanobacterial aldehyde-2 deformylating oxygenase
48	c5uwzA_	Alignment	not modelled	97.6	14	PDB header: lyase Chain: A; PDB Molecule: aldehyde decarbonylase; PDBTitle: protein 12 with aldehyde deformylating oxygenase activity from2 gloeobacter violaceus
49	c5ux2B_	Alignment	not modelled	97.2	18	PDB header: lyase Chain: B; PDB Molecule: aldehyde decarbonylase; PDBTitle: protein 19 with aldehyde deformylating oxidase activity from2 synechococcus
50	d2oc5a1	Alignment	not modelled	97.1	19	Fold: Ferritin-like Superfamily: Ferritin-like Family: PMT1231-like
51	d2fzfa1	Alignment	not modelled	96.4	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
52	d1mhyb_	Alignment	not modelled	96.0	7	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
						PDB header: oxidoreductase

53	c3pm5B_	Alignment	not modelled	95.4	21	Chain: B; PDB Molecule: benzoyl-coa oxygenase component b; PDBTitle: crystal structure of boxb in mixed valent state with bound benzoyl-coa
54	c4di0B_	Alignment	not modelled	95.0	18	PDB header: oxidoreductase Chain: B; PDB Molecule: rubrerythrin; PDBTitle: the structure of rubrerythrin from burkholderia pseudomallei
55	d1nnqa1	Alignment	not modelled	94.5	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
56	d1lotka_	Alignment	not modelled	93.9	12	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
57	d2fkza1	Alignment	not modelled	93.8	12	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
58	d2oh3a1	Alignment	not modelled	93.7	11	Fold: Ferritin-like Superfamily: Ferritin-like Family: AMB4284-like
59	c2hr5B_	Alignment	not modelled	93.5	16	PDB header: metal binding protein Chain: B; PDB Molecule: rubrerythrin; PDBTitle: pf1283- rubrerythrin from pyrococcus furiosus iron bound form
60	c3bknB_	Alignment	not modelled	93.1	11	PDB header: metal binding protein Chain: B; PDB Molecule: bacterioferritin; PDBTitle: the structure of mycobacterial bacterioferritin
61	d1nf4a_	Alignment	not modelled	93.1	10	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
62	d1yv1a1	Alignment	not modelled	92.9	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
63	c5xx9A_	Alignment	not modelled	92.8	12	PDB header: metal transport Chain: A; PDB Molecule: bacterioferritin; PDBTitle: crystal structure of bacterioferritin
64	d1j30a_	Alignment	not modelled	92.1	16	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
65	d1lkoa1	Alignment	not modelled	92.0	13	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
66	d2htna1	Alignment	not modelled	91.2	10	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
67	c3gvvC_	Alignment	not modelled	91.1	12	PDB header: metal binding protein Chain: C; PDB Molecule: bacterioferritin; PDBTitle: crystal structure of bacterioferritin from r.sphaeroides
68	d1jgca_	Alignment	not modelled	91.1	10	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
69	c2qqyA_	Alignment	not modelled	89.1	11	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: sigma b operon; PDBTitle: crystal structure of ferritin like, diiron-carboxylate proteins from2 bacillus anthracis str. ames
70	c3qhbA_	Alignment	not modelled	87.4	15	PDB header: metal transport Chain: A; PDB Molecule: symerythrin; PDBTitle: crystal structure of oxidized symerythrin from cyanophora paradoxa
71	c3ddeB_	Alignment	not modelled	87.0	13	PDB header: unknown function Chain: B; PDB Molecule: tena/thi-4 protein, domain of unknown function with a heme PDBTitle: crystal structure of a domain of unknown function with a heme2 oxygenase-like fold (sden_3740) from shewanella denitrificans os2173 at 2.30 a resolution
72	c2vzbA_	Alignment	not modelled	87.0	11	PDB header: metal transport Chain: A; PDB Molecule: putative bacterioferritin-related protein; PDBTitle: a dodecameric thioferritin in the bacterial domain, characterization2 of the bacterioferritin-related protein from bacteroides fragilis
73	c1yuzB_	Alignment	not modelled	86.1	16	PDB header: oxidoreductase Chain: B; PDB Molecule: nigerythrin; PDBTitle: partially reduced state of nigerythrin
74	c1dvbA_	Alignment	not modelled	85.5	14	PDB header: electron transport Chain: A; PDB Molecule: rubrerythrin; PDBTitle: rubrerythrin
75	c4am4B_	Alignment	not modelled	85.2	10	PDB header: metal binding protein Chain: B; PDB Molecule: bacterioferritin; PDBTitle: bacterioferritin from blastochloris viridis
76	c5n5eM_	Alignment	not modelled	84.8	7	PDB header: oxidoreductase Chain: M; PDB Molecule: pfc_05175; PDBTitle: crystal structure of encapsulated ferritin domain from pyrococcus2 furiosus pfc_05175
77	d1vjxa_	Alignment	not modelled	77.0	13	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
78	d1rcwa_	Alignment	not modelled	75.4	11	Fold: Heme oxygenase-like Superfamily: Heme oxygenase-like Family: PqqC-like
79	c3oqlB_	Alignment	not modelled	75.1	10	PDB header: transcription Chain: B; PDB Molecule: tena homolog; PDBTitle: crystal structure of a tena homolog (pspto1738) from

						pseudomonas2 syringae pv. tomato str. dc3000 at 2.54 a resolution
80	d1jkva_	Alignment	not modelled	74.7	12	Fold: Ferritin-like Superfamily: Ferritin-like Family: Manganese catalase (T-catalase)
81	c4r42B_	Alignment	not modelled	72.6	15	PDB header: oxidoreductase Chain: B: PDB Molecule: alr3090 protein; PDBTitle: crystal structure of katb, a manganese catalase from anabaena pcc7120
82	d1yuza1	Alignment	not modelled	69.9	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
83	d1z72a1	Alignment	not modelled	69.3	9	Fold: Heme oxygenase-like Superfamily: Heme oxygenase-like Family: TENA/THI-4
84	c3fvbB_	Alignment	not modelled	68.2	10	PDB header: metal binding protein Chain: B: PDB Molecule: bacterioferritin; PDBTitle: crystal structure of ferritin (bacterioferritin) from brucella2 melitensis
85	c3r2rA_	Alignment	not modelled	66.0	13	PDB header: metal binding protein Chain: A: PDB Molecule: bacterioferritin; PDBTitle: 1.65a resolution structure of iron soaked ftna from pseudomonas2 aeruginosa (ph 6.0)
86	c2rd3A_	Alignment	not modelled	65.4	6	PDB header: hydrolase Chain: A: PDB Molecule: transcriptional regulator; PDBTitle: crystal structure of tena homologue (hp1287) from helicobacter pylori
87	c3oqlA_	Alignment	not modelled	61.9	11	PDB header: transcription Chain: A: PDB Molecule: tena homolog; PDBTitle: crystal structure of a tena homolog (pspto1738) from pseudomonas2 syringae pv. tomato str. dc3000 at 2.54 a resolution
88	c2clbP_	Alignment	not modelled	53.8	12	PDB header: metal binding protein Chain: P: PDB Molecule: dps-like protein; PDBTitle: the structure of the dps-like protein from sulfobolus2 solfataricus reveals a bacterioferritin-like di-metal3 binding site within a dps-like dodecameric assembly
89	d1udda_	Alignment	not modelled	48.9	3	Fold: Heme oxygenase-like Superfamily: Heme oxygenase-like Family: TENA/THI-4
90	d1mtyb_	Alignment	not modelled	48.8	9	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ribonucleotide reductase-like
91	c2hz8A_	Alignment	not modelled	47.9	30	PDB header: de novo protein Chain: A: PDB Molecule: de novo designed diiron protein; PDBTitle: qm/mm structure refined from nmr-structure of a single2 chain diiron protein
92	c5wljC_	Alignment	not modelled	46.1	60	PDB header: de novo protein Chain: C: PDB Molecule: de novo metal binding helical bundle; PDBTitle: de novo design of polynuclear transition metal clusters in helix2 bundles-4eh1
93	c5wljD_	Alignment	not modelled	46.1	60	PDB header: de novo protein Chain: D: PDB Molecule: de novo metal binding helical bundle; PDBTitle: de novo design of polynuclear transition metal clusters in helix2 bundles-4eh1
94	c5wljB_	Alignment	not modelled	46.1	60	PDB header: de novo protein Chain: B: PDB Molecule: de novo metal binding helical bundle; PDBTitle: de novo design of polynuclear transition metal clusters in helix2 bundles-4eh1
95	c5wljA_	Alignment	not modelled	46.1	60	PDB header: de novo protein Chain: A: PDB Molecule: de novo metal binding helical bundle; PDBTitle: de novo design of polynuclear transition metal clusters in helix2 bundles-4eh1
96	c3bjdA_	Alignment	not modelled	37.2	12	PDB header: transferase Chain: A: PDB Molecule: putative 3-oxoacyl-(acyl-carrier-protein) synthase; PDBTitle: crystal structure of putative 3-oxoacyl-(acyl-carrier-protein)2 synthase from pseudomonas aeruginosa
97	c3e6sD_	Alignment	not modelled	30.7	12	PDB header: oxidoreductase Chain: D: PDB Molecule: ferritin; PDBTitle: crystal structure of ferritin soaked with iron from pseudo-nitzschia2 multiseris
98	c3q4nA_	Alignment	not modelled	28.6	13	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein mj0754; PDBTitle: crystal structure of hypothetical protein mj0754 from methanococcus2 jannaschii dsm 2661
99	c3fiaA_	Alignment	not modelled	25.6	10	PDB header: protein binding Chain: A: PDB Molecule: intersectin-1; PDBTitle: crystal structure of the eh 1 domain from human intersectin-1 protein.2 northeast structural genomics consortium target hr3646e.
100	d1tfra1	Alignment	not modelled	23.0	18	Fold: SAM domain-like Superfamily: 5' to 3' exonuclease, C-terminal subdomain Family: 5' to 3' exonuclease, C-terminal subdomain
101	d1xp8a2	Alignment	not modelled	21.1	14	Fold: Anti-LPS factor/recA domain Superfamily: RecA protein, C-terminal domain Family: RecA protein, C-terminal domain
102	c5vrD_	Alignment	not modelled	20.5	10	PDB header: oxidoreductase Chain: D: PDB Molecule: bifunctional coenzyme pqq synthesis protein c/d; PDBTitle: crystal structure for methylobacterium extorquens pqqcd (natural2 fusion)