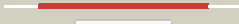



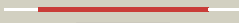








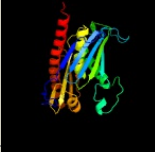







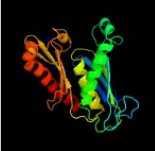


Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD1340_(rph)_1506761_1507540
 Date Wed Jul 31 22:05:44 BST 2019
 Unique Job ID 0b722a498f47549a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3b4tC_	 Alignment		100.0	99	PDB header: transferase Chain: C; PDB Molecule: ribonuclease ph; PDBTitle: crystal structure of mycobacterium tuberculosis rnase ph, the2 mycobacterium tuberculosis structural genomics consortium target3 rv1340
2	c1udsA_	 Alignment		100.0	54	PDB header: transferase Chain: A; PDB Molecule: ribonuclease ph; PDBTitle: crystal structure of the trna processing enzyme rnase ph r126a mutant2 from aquifex aeolicus
3	c1r6mA_	 Alignment		100.0	56	PDB header: transferase Chain: A; PDB Molecule: ribonuclease ph; PDBTitle: crystal structure of the trna processing enzyme rnase ph from2 pseudomonas aeruginosa in complex with phosphate
4	c3dd6A_	 Alignment		100.0	52	PDB header: transferase Chain: A; PDB Molecule: ribonuclease ph; PDBTitle: crystal structure of rph, an exoribonuclease from bacillus anthracis2 at 1.7 a resolution
5	c2c37L_	 Alignment		100.0	31	PDB header: hydrolase Chain: L; PDB Molecule: probable exosome complex exonuclease 1; PDBTitle: rnase ph core of the archaeal exosome in complex with u82 rna
6	c2pnzB_	 Alignment		100.0	23	PDB header: hydrolase/hydrolase Chain: B; PDB Molecule: probable exosome complex exonuclease 2; PDBTitle: crystal structure of the p. abyssi exosome rnase ph ring2 complexed with udp and gmp
7	c2po2A_	 Alignment		100.0	30	PDB header: hydrolase/hydrolase Chain: A; PDB Molecule: probable exosome complex exonuclease 1; PDBTitle: crystal structure of the p. abyssi exosome rnase ph ring2 complexed with cdp
8	c2wnrC_	 Alignment		100.0	21	PDB header: hydrolase Chain: C; PDB Molecule: probable exosome complex exonuclease 2; PDBTitle: the structure of methanothermobacter thermautotrophicus2 exosome core assembly
9	c2nn6C_	 Alignment		100.0	20	PDB header: hydrolase/transferase Chain: C; PDB Molecule: exosome complex exonuclease rrp43; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40
10	c2nn6A_	 Alignment		100.0	24	PDB header: hydrolase/transferase Chain: A; PDB Molecule: polymyositis/scleroderma autoantigen 1; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40
11	c2nn6B_	 Alignment		100.0	25	PDB header: hydrolase/transferase Chain: B; PDB Molecule: exosome complex exonuclease rrp41; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40

12	c2wnrB_	Alignment		100.0	33	PDB header: hydrolase Chain: B: PDB Molecule: probable exosome complex exonuclease 1; PDBTitle: the structure of methanothermobacter thermautotrophicus2 exosome core assembly
13	c2ba1D_	Alignment		100.0	31	PDB header: rna binding protein Chain: D: PDB Molecule: archaeal exosome complex exonuclease rrp41; PDBTitle: archaeal exosome core
14	c6d6kB_	Alignment		100.0	21	PDB header: transferase Chain: B: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: structure of polyribonucleotide nucleotidyltransferase from2 acinetobacter baumannii
15	c4aidC_	Alignment		100.0	21	PDB header: transferase/peptide Chain: C: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: crystal structure of c. crescentus pnpase bound to rna e2 recognition peptide
16	c6d6rF_	Alignment		100.0	22	PDB header: hydrolase Chain: F: PDB Molecule: exosome complex component mtr3; PDBTitle: human nuclear exosome-mtr4 rna complex - composite map after focused2 reconstruction
17	c2nn6E_	Alignment		100.0	17	PDB header: hydrolase/transferase Chain: E: PDB Molecule: exosome complex exonuclease rrp42; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40
18	c2br2G_	Alignment		100.0	25	PDB header: hydrolase Chain: G: PDB Molecule: exosome complex exonuclease 2; PDBTitle: rnae ph core of the archaeal exosome
19	c2ba0I_	Alignment		100.0	22	PDB header: rna binding protein Chain: I: PDB Molecule: archaeal exosome rna binding protein rrp42; PDBTitle: archaeal exosome core
20	c3hkmB_	Alignment		100.0	21	PDB header: hydrolase Chain: B: PDB Molecule: os03g0854200 protein; PDBTitle: crystal structure of rice(oryza sativa) rrp46
21	c1oysA_	Alignment	not modelled	100.0	56	PDB header: transferase Chain: A: PDB Molecule: ribonuclease ph; PDBTitle: crystal structure of the phosphorolytic exoribonuclease2 rnae ph from bacillus subtilis
22	c5yjjE_	Alignment	not modelled	100.0	25	PDB header: cytosolic protein Chain: E: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: crystal structure of pnpase from staphylococcus epidermidis
23	c2wp8B_	Alignment	not modelled	100.0	23	PDB header: hydrolase Chain: B: PDB Molecule: exosome complex component ski6; PDBTitle: yeast rrp44 nuclease
24	c5xexC_	Alignment	not modelled	100.0	25	PDB header: transferase Chain: C: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: crystal structure of s.aureus pnpase catalytic domain
25	c4am3A_	Alignment	not modelled	100.0	22	PDB header: transferase/rna Chain: A: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: crystal structure of c. crescentus pnpase bound to rna
26	c1e3hA_	Alignment	not modelled	100.0	20	PDB header: polyribonucleotide transferase Chain: A: PDB Molecule: guanosine pentaphosphate synthetase; PDBTitle: semet derivative of streptomyces antibioticus pnpase/gpsi enzyme
27	c2wp8A_	Alignment	not modelled	100.0	20	PDB header: hydrolase Chain: A: PDB Molecule: exosome complex component rrp45; PDBTitle: yeast rrp44 nuclease
28	c3u1kB_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: B: PDB Molecule: polyribonucleotide nucleotidyltransferase 1, mitochondrial; PDBTitle: crystal structure of human pnpase
29	c1e3pA_	Alignment	not modelled	100.0	19	PDB header: polyribonucleotide transferase Chain: A: PDB Molecule: guanosine pentaphosphate synthetase; PDBTitle: tungstate derivative of streptomyces antibioticus

						pnpase/2 gpsi enzyme
30	c3cdiA	Alignment	not modelled	100.0	23	PDB header: transferase Chain: A: PDB Molecule: polynucleotide phosphorylase; PDBTitle: crystal structure of e. coli pnpase
31	c4aimA	Alignment	not modelled	100.0	22	PDB header: transferase/peptide Chain: A: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: crystal structure of c. crescentus pnpase bound to rna e2 recognition peptide
32	c4ifdE	Alignment	not modelled	100.0	17	PDB header: hydrolase/rna Chain: E: PDB Molecule: exosome complex component rrp42; PDBTitle: crystal structure of an 11-subunit eukaryotic exosome complex bound to2 rna
33	c4nbgB	Alignment	not modelled	100.0	20	PDB header: transferase Chain: B: PDB Molecule: polyribonucleotide nucleotidyltransferase; PDBTitle: structure of the polynucleotide phosphorylase (cbu_0852) from coxiella2 burnetii
34	c2nn6D	Alignment	not modelled	100.0	22	PDB header: hydrolase/transferase Chain: D: PDB Molecule: exosome complex exonuclease rrp46; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40
35	c3cdjA	Alignment	not modelled	100.0	25	PDB header: transferase Chain: A: PDB Molecule: polynucleotide phosphorylase; PDBTitle: crystal structure of the e. coli kh/s1 domain truncated2 pnpase
36	c2nn6F	Alignment	not modelled	100.0	23	PDB header: hydrolase/transferase Chain: F: PDB Molecule: exosome component 6; PDBTitle: structure of the human rna exosome composed of rrp41, rrp45,2 rrp46, rrp43, mtr3, rrp42, csl4, rrp4, and rrp40
37	c4ifdC	Alignment	not modelled	100.0	19	PDB header: hydrolase/rna Chain: C: PDB Molecule: exosome complex component rrp43; PDBTitle: crystal structure of an 11-subunit eukaryotic exosome complex bound to2 rna
38	c4ifdD	Alignment	not modelled	100.0	20	PDB header: hydrolase/rna Chain: D: PDB Molecule: exosome complex component rrp46; PDBTitle: crystal structure of an 11-subunit eukaryotic exosome complex bound to2 rna
39	c4ifdF	Alignment	not modelled	100.0	18	PDB header: hydrolase/rna Chain: F: PDB Molecule: exosome complex component mtr3; PDBTitle: crystal structure of an 11-subunit eukaryotic exosome complex bound to2 rna
40	d1udsal	Alignment	not modelled	100.0	62	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
41	d1r6la1	Alignment	not modelled	100.0	61	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
42	d2je6b1	Alignment	not modelled	100.0	32	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
43	d2ba0d1	Alignment	not modelled	100.0	34	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
44	d2nn6b1	Alignment	not modelled	100.0	29	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
45	d2ba0g1	Alignment	not modelled	100.0	23	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
46	d2nn6c1	Alignment	not modelled	100.0	20	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
47	d2je6a1	Alignment	not modelled	100.0	26	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
48	d1e3ha3	Alignment	not modelled	100.0	17	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
49	d2nn6e1	Alignment	not modelled	100.0	20	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
50	d2nn6a1	Alignment	not modelled	100.0	27	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
51	d1oysa1	Alignment	not modelled	100.0	63	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
52	c3krnB	Alignment	not modelled	100.0	17	PDB header: hydrolase Chain: B: PDB Molecule: protein c14a4.5, confirmed by transcript evidence; PDBTitle: crystal structure of c. elegans cell-death-related nuclease 5(crn-5)
53	d2nn6f1	Alignment	not modelled	100.0	28	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
54	d1e3ha2	Alignment	not modelled	100.0	20	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
55	d2nn6d1	Alignment	not modelled	100.0	23	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Ribonuclease PH domain 1-like
						Fold: Ribonuclease PH domain 2-like

56	d2je6a2	Alignment	not modelled	99.8	23	Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
57	d2nn6a2	Alignment	not modelled	99.7	14	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
58	d2nn6e2	Alignment	not modelled	99.7	13	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
59	d2ba0g2	Alignment	not modelled	99.7	22	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
60	d1oysa2	Alignment	not modelled	99.7	49	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
61	d2nn6c2	Alignment	not modelled	99.7	19	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
62	d2je6b2	Alignment	not modelled	99.7	25	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
63	d1uds2	Alignment	not modelled	99.7	38	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
64	d1r6la2	Alignment	not modelled	99.7	48	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
65	d2br2b2	Alignment	not modelled	99.7	25	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
66	d2nn6d2	Alignment	not modelled	99.7	19	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
67	d2nn6b2	Alignment	not modelled	99.6	17	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
68	d2ba0d2	Alignment	not modelled	99.6	25	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
69	d2nn6f2	Alignment	not modelled	99.3	17	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
70	d1e3ha5	Alignment	not modelled	98.4	20	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
71	d1e3ha6	Alignment	not modelled	96.2	21	Fold: Ribonuclease PH domain 2-like Superfamily: Ribonuclease PH domain 2-like Family: Ribonuclease PH domain 2-like
72	c4akvB	Alignment	not modelled	58.2	23	PDB header: transport protein Chain: B: PDB Molecule: sorting nexin-33; PDBTitle: crystal structure of human sorting nexin 33 (snx33)
73	c3dyuB	Alignment	not modelled	40.9	23	PDB header: transport protein Chain: B: PDB Molecule: sorting nexin-9; PDBTitle: crystal structure of snx9px-bar (230-595), h32
74	d1puga	Alignment	not modelled	38.0	7	Fold: YbaB-like Superfamily: YbaB-like Family: YbaB-like
75	c2raja	Alignment	not modelled	33.6	21	PDB header: structural protein Chain: A: PDB Molecule: sorting nexin-9; PDBTitle: so4 bound px-bar membrane remodeling unit of sorting nexin 9
76	c4ds1C	Alignment	not modelled	21.8	15	PDB header: structural protein/transport protein Chain: C: PDB Molecule: dynein light chain 1, cytoplasmic; PDBTitle: the structure of a yeast dyn2-nup159 complex and the molecular basis2 for the dynein light chain - nuclear pore interaction
77	d1pwka	Alignment	not modelled	21.5	15	Fold: DLC Superfamily: DLC Family: DLC
78	d1cmia	Alignment	not modelled	20.9	12	Fold: DLC Superfamily: DLC Family: DLC
79	d3e2ba1	Alignment	not modelled	19.0	15	Fold: DLC Superfamily: DLC Family: DLC
80	c5fx0A	Alignment	not modelled	16.3	10	PDB header: cell adhesion Chain: A: PDB Molecule: calcium binding protein; PDBTitle: fasciola hepatica calcium binding protein fhcabp2: structure of the2 dynein light chain-like domain. p6422 native.
81	c5gw1G	Alignment	not modelled	14.2	31	PDB header: protein transport Chain: G: PDB Molecule: sorting nexin-16; PDBTitle: crystal structure of snx16 px-coiled coil in space group p212121
82	d1j8ba	Alignment	not modelled	13.2	6	Fold: YbaB-like Superfamily: YbaB-like Family: YbaB-like
83	c4gdxA	Alignment	not modelled	12.7	28	PDB header: hydrolase Chain: A: PDB Molecule: gamma-glutamyltranspeptidase 1 heavy chain;

						PDBTitle: crystal structure of human gamma-glutamyl transpeptidase--glutamate2 complex
84	c2v36A_	Alignment	not modelled	12.2	28	PDB header: transferase Chain: A: PDB Molecule: gamma-glutamyltranspeptidase large chain; PDBTitle: crystal structure of gamma-glutamyl transferase from bacillus subtilis
85	c2qm6C_	Alignment	not modelled	12.1	28	PDB header: transferase Chain: C: PDB Molecule: gamma-glutamyltranspeptidase; PDBTitle: crystal structure of helicobacter pylori gamma-glutamyltranspeptidase2 in complex with glutamate
86	c2z8jA_	Alignment	not modelled	11.7	28	PDB header: transferase Chain: A: PDB Molecule: gamma-glutamyltranspeptidase; PDBTitle: crystal structure of escherichia coli gamma-glutamyltranspeptidase in2 complex with azaserine prepared in the dark
87	c3p0cA_	Alignment	not modelled	11.5	22	PDB header: signaling protein Chain: A: PDB Molecule: nischarin; PDBTitle: nischarin px-domain
88	c3g9kD_	Alignment	not modelled	11.3	44	PDB header: hydrolase Chain: D: PDB Molecule: capsule biosynthesis protein capd; PDBTitle: crystal structure of bacillus anthracis transpeptidase enzyme capd
89	c5zjgC_	Alignment	not modelled	11.2	28	PDB header: transferase Chain: C: PDB Molecule: gamma-glutamyltransferase 1 threonine peptidase. merops PDBTitle: gamma-glutamyltranspeptidase from pseudomonas nitroreducens complexed2 with gly-gly
90	c4zqvA_	Alignment	not modelled	10.5	19	PDB header: immune system Chain: A: PDB Molecule: cdii immunity protein; PDBTitle: cdii immunity protein from yersinia kristensenii
91	c4y23A_	Alignment	not modelled	9.5	39	PDB header: transferase Chain: A: PDB Molecule: gamma glutamyl transpeptidase,gamma-glutamyltranspeptidase; PDBTitle: crystal structure of t399a precursor mutant protein of gamma-glutamyl2 transpeptidase from bacillus licheniformis
92	c5xoxD_	Alignment	not modelled	8.1	50	PDB header: transferase Chain: D: PDB Molecule: trna(his) guanylyltransferase; PDBTitle: crystal structure of trna(his) guanylyltransferase from saccharomyces2 cerevisiae
93	d2nlza1	Alignment	not modelled	8.0	39	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Gamma-glutamyltranspeptidase-like
94	c3otbB_	Alignment	not modelled	7.9	50	PDB header: transferase Chain: B: PDB Molecule: trna(his) guanylyltransferase; PDBTitle: crystal structure of human trnahis guanylyltransferase (thg1) - dgtp2 complex
95	c2e0wA_	Alignment	not modelled	7.5	28	PDB header: transferase Chain: A: PDB Molecule: gamma-glutamyltranspeptidase; PDBTitle: t391a precursor mutant protein of gamma-glutamyltranspeptidase from2 escherichia coli
96	c4kgkB_	Alignment	not modelled	7.5	40	PDB header: transferase Chain: B: PDB Molecule: thg1-like uncharacterized protein; PDBTitle: bacterial trna(his) guanylyltransferase (thg1)-like protein in complex2 with gtp
97	c5axlB_	Alignment	not modelled	7.3	40	PDB header: transferase Chain: B: PDB Molecule: trna(his)-5'-guanylyltransferase (thg1) like protein; PDBTitle: crystal structure of thg1 like protein (tlp) with gtp
98	c4zquB_	Alignment	not modelled	7.3	10	PDB header: toxin Chain: B: PDB Molecule: cdii toxin; PDBTitle: cdia-ct/cdii toxin and immunity complex from yersinia2 pseudotuberculosis
99	c4olqD_	Alignment	not modelled	7.2	15	PDB header: lyase Chain: D: PDB Molecule: enoyl-coa hydratase/isomerase family protein; PDBTitle: crystal structure of a putative enoyl-coa hydratase/isomerase family2 protein from hyphomonas neptunium