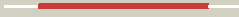


















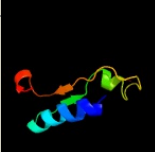

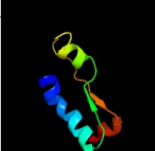

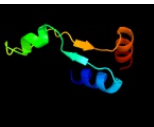

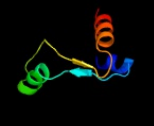

























Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD0078A (-)_87205_87798
Date	Tue Jul 23 14:50:11 BST 2019
Unique Job ID	0e208abed9fa76f6

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c5uvdA	 Alignment		99.8	17	PDB header: transferase Chain: A: PDB Molecule: nucleotidyltransferase-like protein; PDBTitle: crystal structure of an antigenic nucleotidyltransferase-like protein2 from paracoccidioides brasiliensis
2	c4e8iA	 Alignment		99.7	12	PDB header: transferase Chain: A: PDB Molecule: lincosamide resistance protein; PDBTitle: crystal structure of lincosamide antibiotic adenylyltransferase lina,2 apo
3	c4wqkA	 Alignment		99.5	13	PDB header: transferase Chain: A: PDB Molecule: 2"-aminoglycoside nucleotidyltransferase; PDBTitle: crystal structure of aminoglycoside nucleotidyltransferase ant(2")-2 ia, apo form
4	c4ok0B	 Alignment		99.5	15	PDB header: transferase Chain: B: PDB Molecule: putative; PDBTitle: crystal structure of putative nucleotidyltransferase from h. pylori
5	d2fcla1	 Alignment		97.5	16	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: TM1012-like
6	c3h37B	 Alignment		94.0	25	PDB header: transferase Chain: B: PDB Molecule: trna nucleotidyl transferase-related protein; PDBTitle: the structure of cca-adding enzyme apo form i
7	d1ou5a2	 Alignment		93.9	11	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
8	c1sz1A	 Alignment		93.7	16	PDB header: transferase/rna Chain: A: PDB Molecule: trna nucleotidyltransferase; PDBTitle: mechanism of cca-adding enzymes specificity revealed by crystal2 structures of ternary complexes
9	c6q52A	 Alignment		93.4	17	PDB header: rna binding protein Chain: A: PDB Molecule: cca-adding enzyme; PDBTitle: structure of a psychrophilic cca-adding enzyme in complex with cmpcpp2 at room temperature in chipx microfluidic device
10	d1miwa2	 Alignment		93.3	21	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
11	c1miyB	 Alignment		92.9	20	PDB header: translation, transferase Chain: B: PDB Molecule: trna cca-adding enzyme; PDBTitle: crystal structure of bacillus stearothermophilus cca-adding enzyme in2 complex with ctp

12	c4x4wB_	 Alignment		92.8	12	PDB header: rna binding protein Chain: B: PDB Molecule: cca trna nucleotidyltransferase 1, mitochondrial; PDBTitle: crystal structure of the full-length human mitochondrial cca-adding2 enzyme
13	d1vfga2	 Alignment		92.4	25	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
14	c1lou5A_	 Alignment		89.3	12	PDB header: translation, transferase Chain: A: PDB Molecule: trna cca-adding enzyme; PDBTitle: crystal structure of human cca-adding enzyme
15	c3wfrH_	 Alignment		89.3	21	PDB header: transferase/rna Chain: H: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 2
16	c3wfpB_	 Alignment		88.1	20	PDB header: transferase Chain: B: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme (apo form 2)
17	c3wfrG_	 Alignment		86.2	21	PDB header: transferase/rna Chain: G: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 2
18	d1wota_	 Alignment		85.1	16	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
19	c1vfgB_	 Alignment		84.2	22	PDB header: transferase/rna Chain: B: PDB Molecule: poly a polymerase; PDBTitle: crystal structure of trna nucleotidyltransferase complexed2 with a primer trna and an incoming atp analog
20	d1r89a2	 Alignment		83.2	17	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Archaeal tRNA CCA-adding enzyme catalytic domain
21	c3aqaA_	 Alignment	not modelled	82.6	18	PDB header: transferase Chain: A: PDB Molecule: poly(a) polymerase; PDBTitle: complex structure of bacterial protein (apo form ii)
22	c3wfrE_	 Alignment	not modelled	82.1	19	PDB header: transferase/rna Chain: E: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 2
23	c3wfpA_	 Alignment	not modelled	81.9	20	PDB header: transferase Chain: A: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme (apo form 2)
24	c3wfrF_	 Alignment	not modelled	81.8	19	PDB header: transferase/rna Chain: F: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 2
25	d1knya2	 Alignment	not modelled	80.7	13	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Kanamycin nucleotidyltransferase (KNTase), N-terminal domain
26	c3wfgG_	 Alignment	not modelled	80.5	19	PDB header: transferase/rna Chain: G: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 1
27	c3wfgE_	 Alignment	not modelled	79.3	19	PDB header: transferase/rna Chain: E: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 1
28	c3wfsD_	 Alignment	not modelled	78.7	19	PDB header: transferase/rna Chain: D: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 3
29	c3wfsC_	 Alignment	not modelled	78.1	19	PDB header: transferase/rna Chain: C: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 3

30	c3wfgH	Alignment	not modelled	71.7	19	PDB header: transferase/rna Chain: H: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme complex 1
31	c3wfoB	Alignment	not modelled	70.9	19	PDB header: transferase Chain: B: PDB Molecule: poly a polymerase; PDBTitle: trna processing enzyme (apo form 1)
32	c2rffA	Alignment	not modelled	63.3	20	PDB header: transferase Chain: A: PDB Molecule: putative nucleotidyltransferase; PDBTitle: crystal structure of a putative nucleotidyltransferase (np_343093.1)2 from sulfolobus solfataricus at 1.40 a resolution
33	c4s3nA	Alignment	not modelled	44.2	12	PDB header: transferase/rna Chain: A: PDB Molecule: 2'-5'-oligoadenylate synthase 3; PDBTitle: crystal structure of human oas3 domain i in complex with dsrna
34	c2bcuA	Alignment	not modelled	44.0	15	PDB header: transferase, lyase/dna Chain: A: PDB Molecule: dna polymerase lambda; PDBTitle: dna polymerase lambda in complex with a dna duplex2 containing an unpaired damp and a t:t mismatch
35	d1no5a	Alignment	not modelled	38.3	16	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
36	c2ihmA	Alignment	not modelled	35.8	19	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase mu; PDBTitle: polymerase mu in ternary complex with gapped 11mer dna duplex and2 bound incoming nucleotide
37	c4xq7A	Alignment	not modelled	35.7	22	PDB header: transferase Chain: A: PDB Molecule: 2'-5'-oligoadenylate synthase-like protein; PDBTitle: the crystal structure of the oas-like domain (old) of human oasl
38	c2la3A	Alignment	not modelled	34.6	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: the nmr structure of the protein np_344798.1 reveals a cca-adding2 enzyme head domain
39	c1knyA	Alignment	not modelled	32.4	12	PDB header: transferase Chain: A: PDB Molecule: kanamycin nucleotidyltransferase; PDBTitle: kanamycin nucleotidyltransferase
40	d2fmpa3	Alignment	not modelled	31.2	8	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
41	d1jmsa4	Alignment	not modelled	30.1	20	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
42	c3zeuE	Alignment	not modelled	29.9	14	PDB header: hydrolase Chain: E: PDB Molecule: probable trna threonylcarbamoyladenosine biosynthesis PDBTitle: structure of a salmonella typhimurium ygdj-yeaz heterodimer bound to2 atpgammas
43	c4cs6A	Alignment	not modelled	28.8	13	PDB header: transferase Chain: A: PDB Molecule: aminoglycoside adenytransferase; PDBTitle: crystal structure of aada - an aminoglycoside adenytransferase
44	d1ylqa1	Alignment	not modelled	28.2	18	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
45	c6e0kA	Alignment	not modelled	26.7	23	PDB header: transferase Chain: A: PDB Molecule: cgas/dncv-like nucleotidyltransferase in e. coli homolog; PDBTitle: structure of rhodothermus marinus cdne c-ump-amp synthase
46	c6gwjK	Alignment	not modelled	26.7	11	PDB header: rna binding protein Chain: K: PDB Molecule: probable trna n6-adenosine threonylcarbamoyltransferase; PDBTitle: protein complex
47	d1q79a2	Alignment	not modelled	25.4	12	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly(A) polymerase, PAP, N-terminal domain
48	c4e80B	Alignment	not modelled	25.3	12	PDB header: transferase Chain: B: PDB Molecule: poly(a) rna polymerase protein cid1; PDBTitle: structural basis for the activity of a cytoplasmic rna terminal u-2 transferase
49	d2vana2	Alignment	not modelled	23.9	10	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
50	d2q66a2	Alignment	not modelled	20.2	17	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly(A) polymerase, PAP, N-terminal domain
51	d1jqra	Alignment	not modelled	19.2	15	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
52	c5idoA	Alignment	not modelled	16.7	16	PDB header: transferase Chain: A: PDB Molecule: 3' terminal uridylyl transferase; PDBTitle: rna editing tutase 1 from trypanosoma brucei in complex with utp
53	c4p4oA	Alignment	not modelled	15.8	15	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase beta; PDBTitle: crystal structure of leishmania infantum polymerase beta: ternary gap2 complex
54	c2q8uA	Alignment	not modelled	14.2	15	PDB header: hydrolase Chain: A: PDB Molecule: exonuclease, putative; PDBTitle: crystal structure of mre11 from thermotoga maritima msb8 (tm1635) at2 2.20 a resolution
55	d1uc8a1	Alignment	not modelled	13.4	11	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: Lysine biosynthesis enzyme LysX, N-terminal domain PDB header: hydrolase

56	c5zdcL_	Alignment	not modelled	12.7	14	Chain: L; PDB Molecule: poly adp-ribose glycohydrolase; PDBTitle: crystal structure of poly(adp-ribose) glycohydrolase (parg) from2 deinococcus radiodurans in complex with adp-ribose (p32)
57	c3c66B_	Alignment	not modelled	12.5	15	PDB header: transferase Chain: B; PDB Molecule: poly(a) polymerase; PDBTitle: yeast poly(a) polymerase in complex with fip1 residues 80-105
58	c6girA_	Alignment	not modelled	11.4	6	PDB header: cytosolic protein Chain: A; PDB Molecule: serine--trna ligase, cytoplasmic; PDBTitle: arabidopsis thaliana cytosolic seryl-trna synthetase
59	c3hiyA_	Alignment	not modelled	11.0	20	PDB header: transferase Chain: A; PDB Molecule: minor editosome-associated tutase; PDBTitle: minor editosome-associated tutase 1 with bound utp and mg
60	c3siiA_	Alignment	not modelled	10.4	9	PDB header: hydrolase/hydrolase inhibitor Chain: A; PDB Molecule: poly(adp-ribose) glycohydrolase; PDBTitle: the x-ray crystal structure of poly(adp-ribose) glycohydrolase bound2 to the inhibitor adp-hpd from thermomonospora curvata
61	c1q78A_	Alignment	not modelled	9.1	12	PDB header: transferase Chain: A; PDB Molecule: poly(a) polymerase alpha; PDBTitle: crystal structure of poly(a) polymerase in complex with 3'-2 datp and magnesium chloride
62	c1kdhA_	Alignment	not modelled	8.5	20	PDB header: transferase/dna Chain: A; PDB Molecule: terminal deoxynucleotidyltransferase short PDBTitle: binary complex of murine terminal deoxynucleotidyl2 transferase with a primer single stranded dna
63	c6oteA_	Alignment	not modelled	7.0	7	PDB header: ligase Chain: A; PDB Molecule: seryl-trna synthetase, cytoplasmic; PDBTitle: crystal structure of seryl-trna synthetase (serrs) from2 cryptosporidium parvum complexed with l-serylsulfamoyl adenosine
64	c1w2wj_	Alignment	not modelled	6.8	14	PDB header: isomerase Chain: J; PDB Molecule: 5-methylthioribose-1-phosphate isomerase; PDBTitle: crystal structure of yeast ypr118w, a methylthioribose-1-phosphate2 isomerase related to regulatory eif2b subunits
65	c3auoB_	Alignment	not modelled	6.7	28	PDB header: transferase/dna Chain: B; PDB Molecule: dna polymerase beta family (x family); PDBTitle: dna polymerase x from thermus thermophilus hb8 ternary complex with 1-2 nt gapped dna and ddgtp
66	c3en9B_	Alignment	not modelled	6.6	23	PDB header: hydrolase Chain: B; PDB Molecule: o-sialoglycoprotein endopeptidase/protein kinase; PDBTitle: structure of the methanococcus jannaschii kae1-bud32 fusion2 protein
67	c3vbbB_	Alignment	not modelled	6.5	11	PDB header: ligase Chain: B; PDB Molecule: seryl-trna synthetase, cytoplasmic; PDBTitle: crystal structure of seryl-trna synthetase from human at 2.9 angstroms
68	c3lssA_	Alignment	not modelled	6.3	9	PDB header: ligase Chain: A; PDB Molecule: seryl-trna synthetase; PDBTitle: trypanosoma brucei seryl-trna synthetase in complex with atp
69	d1jqga2	Alignment	not modelled	6.2	17	Fold: Ferredoxin-like Superfamily: Protease propeptides/inhibitors Family: Pancreatic carboxypeptidase, activation domain
70	c3ol4B_	Alignment	not modelled	6.2	20	PDB header: unknown function Chain: B; PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a putative uncharacterized protein from2 mycobacterium smegmatis, an ortholog of rv0543c
71	c3nybA_	Alignment	not modelled	5.6	11	PDB header: transferase/rna binding protein Chain: A; PDB Molecule: poly(a) rna polymerase protein 2; PDBTitle: structure and function of the polymerase core of tramp, a rna2 surveillance complex
72	c4oydB_	Alignment	not modelled	5.5	15	PDB header: viral protein/inhibitor Chain: B; PDB Molecule: computationally designed inhibitor; PDBTitle: crystal structure of a computationally designed inhibitor of an2 epstein-barr viral bcl-2 protein
73	c5fnpB_	Alignment	not modelled	5.4	11	PDB header: oxidoreductase Chain: B; PDB Molecule: iron-sulfur cluster repair protein ytf; PDBTitle: high resolution zn containing iron sulfur cluster repair2 protein ytf
74	d2bcqa3	Alignment	not modelled	5.3	14	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
75	c4zrIA_	Alignment	not modelled	5.2	11	PDB header: transferase Chain: A; PDB Molecule: poly(a) rna polymerase gld-2; PDBTitle: structure of the non canonical poly(a) polymerase complex gld-2 - gld-2 3
76	d1kzyc2	Alignment	not modelled	5.2	19	Fold: BRCT domain Superfamily: BRCT domain Family: 53BP1
77	d1zbsa1	Alignment	not modelled	5.2	16	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: BadF/BadG/BcrA/BcrD-like