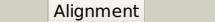
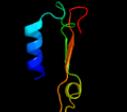
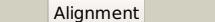
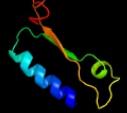
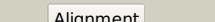
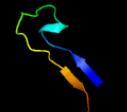
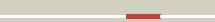
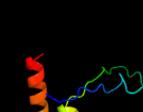


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD2221c_(glnE)_2489377_2492361
Date	Mon Aug 5 13:25:35 BST 2019
Unique Job ID	ba9b76ceceda5bd9

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3k7dA			100.0	25	PDB header: transferase Chain: A: PDB Molecule: glutamate-ammonia-ligase adenyltransferase; PDBTitle: c-terminal (adenylation) domain of e.coli glutamine synthetase2 adenyltransferase
2	c1v4aA			100.0	25	PDB header: transferase Chain: A: PDB Molecule: glutamate-ammonia-ligase adenyltransferase; PDBTitle: structure of the n-terminal domain of escherichia coli2 glutamine synthetase adenyltransferase
3	d1v4aa2			100.0	23	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: GlnE-like domain
4	d1v4aa1			100.0	27	Fold: Four-helical up-and-down bundle Superfamily: Nucleotidyltransferase substrate binding subunit/domain Family: Glutamine synthase adenyltransferase GlnE, domain 2
5	d1knya2			97.0	20	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Kanamycin nucleotidyltransferase (KNTase), N-terminal domain
6	c1knyA			96.5	20	PDB header: transferase Chain: A: PDB Molecule: kanamycin nucleotidyltransferase; PDBTitle: kanamycin nucleotidyltransferase
7	c2rffA			96.3	15	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
8	d1ylqal			95.3	16	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
9	d1no5a			94.3	20	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase
10	c4cs6A			93.7	23	PDB header: transferase Chain: A: PDB Molecule: aminoglycoside adenyltransferase; PDBTitle: crystal structure of aada - an aminoglycoside adenyltransferase
11	d1wota			93.5	24	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Catalytic subunit of bi-partite nucleotidyltransferase

12	c3c66B	Alignment		92.8	16	PDB header: transferase Chain: B: PDB Molecule: poly(a) polymerase; PDBTitle: yeast poly(a) polymerase in complex with fip1 residues 80-105
13	d2q66a2	Alignment		92.1	15	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly(A) polymerase, PAP, N-terminal domain
14	c1q78A	Alignment		92.1	15	PDB header: transferase Chain: A: PDB Molecule: poly(a) polymerase alpha; PDBTitle: crystal structure of poly(a) polymerase in complex with 3'-2 dapt and magnesium chloride
15	d1q79a2	Alignment		90.8	16	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly(A) polymerase, PAP, N-terminal domain
16	c4ebjB	Alignment		90.5	14	PDB header: transferase Chain: B: PDB Molecule: aminoglycoside nucleotidyltransferase; PDBTitle: crystal structure of aminoglycoside 4'-o-adenylyltransferase ant(4')-2 iib, apo
17	c3jz0B	Alignment		89.3	16	PDB header: transferase/antibiotic Chain: B: PDB Molecule: lincosamide nucleotidyltransferase; PDBTitle: linb complexed with clindamycin and ampcpp
18	c5z4cA	Alignment		85.7	12	PDB header: transferase Chain: A: PDB Molecule: terminal uridylyltransferase tailor; PDBTitle: crystal structure of tailor
19	d2fmpa3	Alignment		78.5	17	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
20	c4zrlA	Alignment		75.0	14	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
21	c2bcuA	Alignment	not modelled	72.3	19	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
22	c4xq7A	Alignment	not modelled	68.2	8	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 oas1
23	c5w0mA	Alignment	not modelled	67.0	11	PDB header: transferase/rna Chain: A: PDB Molecule: terminal uridylyltransferase 7; PDBTitle: structure of human tut7 catalytic module (cm) in complex with u5 rna
24	c4ep7A	Alignment	not modelled	62.0	12	PDB header: transferase Chain: A: PDB Molecule: poly(a) rna polymerase protein cid1; PDBTitle: functional implications from the cid1 poly(u) polymerase crystal2 structure
25	c4e80B	Alignment	not modelled	61.0	13	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
26	c4s3nA	Alignment	not modelled	54.8	16	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
27	d2vana2	Alignment	not modelled	54.3	17	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
28	c2la3A	Alignment	not modelled	53.9	14	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 PDB header: transferase/dna

29	c4p4oA		Alignment	not modelled	51.6	11	Chain: A: PDB Molecule: dna polymerase beta; PDBTitle: crystal structure of leishmania infantum polymerase beta:ternary gap2 complex
30	c4uz0B		Alignment	not modelled	49.8	30	PDB header: apoptosis Chain: B: PDB Molecule: nucleolar protein 3; PDBTitle: crystal structure of apoptosis repressor with card (arc)
31	c1sz1A		Alignment	not modelled	49.0	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
32	c3nybA		Alignment	not modelled	48.8	14	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
33	c5yepA		Alignment	not modelled	46.8	17	PDB header: antitoxin/toxin Chain: A: PDB Molecule: toxin-antitoxin system antidote mnt family; PDBTitle: crystal structure of so_3166-so_3165 from shewanella oneidensis
34	d1jmsa4		Alignment	not modelled	39.7	13	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
35	c5m45K		Alignment	not modelled	38.6	25	PDB header: ligase Chain: K: PDB Molecule: acetone carboxylase beta subunit; PDBTitle: structure of acetone carboxylase purified from xanthobacter2 autotrophicus
36	c1kdhA		Alignment	not modelled	35.5	18	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
37	c3fioB		Alignment	not modelled	35.4	7	PDB header: nucleotide binding protein, metal bindin Chain: B: PDB Molecule: a cystathionine beta-synthase domain protein PDBTitle: crystal structure of a fragment of a cystathionine beta-2 synthase domain protein fused to a zn-ribbon-like domain
38	c1x4pA		Alignment	not modelled	35.4	21	PDB header: rna binding protein Chain: A: PDB Molecule: putative splicing factor, arginine/serine-rich PDBTitle: solution structure of surp domain in sfrs14 protein
39	d1r89a2		Alignment	not modelled	33.6	14	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Archaeal tRNA CCA-adding enzyme catalytic domain
40	d1vk2a		Alignment	not modelled	32.2	14	Fold: Uracil-DNA glycosylase-like Superfamily: Uracil-DNA glycosylase-like Family: Mug-like
41	c3db2C		Alignment	not modelled	32.2	13	PDB header: oxidoreductase Chain: C: PDB Molecule: putative nadph-dependent oxidoreductase; PDBTitle: crystal structure of a putative nadph-dependent oxidoreductase2 (dhaf_2064) from desulfobacterium hafniense dcb-2 at 1.70 a3 resolution
42	c1lttB		Alignment	not modelled	31.7	15	PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase (virulence factor mvim homolog); PDBTitle: crystal structure of a putative oxidoreductase (virulence factor mvim2 homolog)
43	c5l9wb		Alignment	not modelled	29.4	13	PDB header: ligase Chain: B: PDB Molecule: acetophenone carboxylase gamma subunit; PDBTitle: crystal structure of the apc core complex
44	d2bcqa3		Alignment	not modelled	28.3	12	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
45	c3o7kA		Alignment	not modelled	26.3	25	PDB header: lyase Chain: A: PDB Molecule: ohcu decarboxylase; PDBTitle: crystal structure of 2-oxo-4-hydroxy-4-carboxy-5-ureidoimidazoline2 decarboxylase from klebsiella pneumoniae
46	c3pq1A		Alignment	not modelled	25.9	13	PDB header: transferase Chain: A: PDB Molecule: poly(A) RNA Polymerase; PDBTitle: crystal structure of human mitochondrial poly(A) polymerase (papd1)
47	c2a4aB		Alignment	not modelled	25.2	19	PDB header: lyase Chain: B: PDB Molecule: deoxyribose-phosphate aldolase; PDBTitle: deoxyribose-phosphate aldolase from <i>P. yeloii</i>
48	c5l3xb		Alignment	not modelled	22.2	20	PDB header: transcription Chain: B: PDB Molecule: negative elongation factor c/d; PDBTitle: crystal structure of negative elongation factor subcomplex nelac
49	c2jq5A		Alignment	not modelled	22.0	17	PDB header: structural genomics Chain: A: PDB Molecule: sec-c motif; PDBTitle: solution structure of rpa3114, a sec-c motif containing protein from2 rhopseudomonas palustris; northeast structural genomics consortium3 target rpt5 / ontario center for structural proteomics target rp3097
50	c5l9wb		Alignment	not modelled	21.8	13	PDB header: ligase Chain: B: PDB Molecule: acetophenone carboxylase gamma subunit; PDBTitle: crystal structure of the apc core complex
51	c3ngjC		Alignment	not modelled	21.8	20	PDB header: lyase Chain: C: PDB Molecule: deoxyribose-phosphate aldolase; PDBTitle: crystal structure of a putative deoxyribose-phosphate aldolase from2 entamoeba histolytica
52	d1vi7a1		Alignment	not modelled	20.2	35	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: YigZ N-terminal domain-like
53	c4hadD		Alignment	not modelled	19.7	20	PDB header: oxidoreductase Chain: D: PDB Molecule: probable oxidoreductase protein; PDBTitle: crystal structure of probable oxidoreductase protein from

						rhizobium2 etli cfn 42
54	c3qyqC	Alignment	not modelled	19.6	9	PDB header: lyase Chain: C: PDB Molecule: deoxyribose-phosphate aldolase, putative; PDBTitle: 1.8 angstrom resolution crystal structure of a putative deoxyribose-2 phosphate aldolase from <i>toxoplasma gondii</i> me49
55	c3hiyA	Alignment	not modelled	19.4	15	PDB header: transferase Chain: A: PDB Molecule: minor editosome-associated tutase; PDBTitle: minor editosome-associated tutase 1 with bound utp and mg
56	c3ng3A	Alignment	not modelled	19.3	37	PDB header: lyase Chain: A: PDB Molecule: deoxyribose-phosphate aldolase; PDBTitle: crystal structure of deoxyribose phosphate aldolase from mycobacterium2 avium 104 in a schiff base with an unknown aldehyde
57	c6eo0A	Alignment	not modelled	19.2	16	PDB header: transferase/rna Chain: A: PDB Molecule: cgas/dncv-like nucleotidyltransferase in e. coli homolog; PDBTitle: structure of elizabethkingia meningoseptica cdne cyclic dinucleotide2 synthase with pppA[3'-5'jpa]
58	c4mp6A	Alignment	not modelled	18.5	22	PDB header: oxidoreductase Chain: A: PDB Molecule: putative ornithine cyclodeaminase; PDBTitle: staphyloferrin b precursor biosynthetic enzyme sbnb bound to citrate2 and nad+
59	d1h6da1	Alignment	not modelled	18.4	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
60	d1jqra	Alignment	not modelled	18.1	26	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: DNA polymerase beta-like
61	c3pq1B	Alignment	not modelled	17.9	10	PDB header: transferase Chain: B: PDB Molecule: poly(a) rna polymerase; PDBTitle: crystal structure of human mitochondrial poly(a) polymerase (papd1)
62	c5wu6B	Alignment	not modelled	17.9	19	PDB header: transferase Chain: B: PDB Molecule: speckle targeted pip5k1a-regulated poly(a) polymerase; PDBTitle: crystal structure of apo human tut1, form iv
63	c5a2zB	Alignment	not modelled	17.6	14	PDB header: unknown function Chain: B: PDB Molecule: mitochondrial protein; PDBTitle: crystal structure of mtpap in complex with gtp
64	c6bqiA	Alignment	not modelled	17.6	19	PDB header: translation Chain: A: PDB Molecule: protein impact homolog; PDBTitle: structure of two-domain translational regulator yih1 reveals a2 possible mechanism of action
65	c3ceaA	Alignment	not modelled	16.6	23	PDB header: oxidoreductase Chain: A: PDB Molecule: myo-inositol 2-dehydrogenase; PDBTitle: crystal structure of myo-inositol 2-dehydrogenase (np_786804.1) from2 lactobacillus plantarum at 2.40 a resolution
66	d2cvea1	Alignment	not modelled	16.6	44	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: YigZ N-terminal domain-like
67	d1f99a	Alignment	not modelled	16.3	15	Fold: Globin-like Superfamily: Globin-like Family: Phycocyanin-like phycobilisome proteins
68	c8icza	Alignment	not modelled	16.3	15	PDB header: transferase/dna Chain: A: PDB Molecule: protein (dna polymerase beta (e.c.2.7.7.7)); PDBTitle: dna polymerase beta (pol b) (e.c.2.7.7.7) complexed with2 seven base pairs of dna; soaked in the presence of of dntp3 (1 millimolar), mncl2 (5 millimolar), and lithium sulfate4 (75 millimolar)
69	d2nvwa1	Alignment	not modelled	16.0	11	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
70	c5uibA	Alignment	not modelled	15.9	16	PDB header: oxidoreductase Chain: A: PDB Molecule: oxidoreductase protein; PDBTitle: crystal structure of an oxidoreductase from agrobacterium radiobacter2 in complex with nad+, l-tartaric acid and magnesium
71	c3f2eA	Alignment	not modelled	15.9	15	PDB header: viral protein Chain: A: PDB Molecule: sirv coat protein; PDBTitle: crystal structure of yellowstone sirv coat protein c-terminus
72	c2glxD	Alignment	not modelled	15.8	20	PDB header: oxidoreductase Chain: D: PDB Molecule: 1,5-anhydro-d-fructose reductase; PDBTitle: crystal structure analysis of bacterial 1,5-af reductase
73	d1lqmga2	Alignment	not modelled	15.1	42	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
74	c3uuwB	Alignment	not modelled	14.9	9	PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase with nad(p)-binding rossmann-fold PDBTitle: 1.63 angstrom resolution crystal structure of dehydrogenase (mvim)2 from clostridium difficile.
75	c3nt5B	Alignment	not modelled	14.8	23	PDB header: oxidoreductase Chain: B: PDB Molecule: inositol 2-dehydrogenase/d-chiro-inositol 3-dehydrogenase; PDBTitle: crystal structure of myo-inositol dehydrogenase from bacillus subtilis2 with bound cofactor and product inosose
76	c6ajrA	Alignment	not modelled	14.5	11	PDB header: dna binding protein Chain: A: PDB Molecule: uracil dna glycosylase superfamily protein; PDBTitle: complex form of uracil dna glycosylase x and uracil
77	d1r8ka	Alignment	not modelled	14.3	23	Fold: Isocitrate/isopropylmalate dehydrogenase-like Superfamily: Isocitrate/isopropylmalate dehydrogenase-like Family: PdxA-like
						PDB header: transferase

78	c2q0dA	Alignment	not modelled	13.9	14	Chain: A: PDB Molecule: rna uridylyl transferase; PDBTitle: terminal uridylyl transferase 4 from trypanosoma brucei with bound atp
79	d1p1xa	Alignment	not modelled	13.8	23	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
80	c5muul	Alignment	not modelled	13.6	17	PDB header: virus Chain: I: PDB Molecule: major outer capsid protein; PDBTitle: dsrna bacteriophage phi6 nucleocapsid
81	c2ihmA	Alignment	not modelled	13.6	14	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase mu; PDBTitle: polymerase mu in ternary complex with gapped 11mer dna duplex and 2 bound incoming nucleotide
82	c4zbzA	Alignment	not modelled	13.6	14	PDB header: hydrolase Chain: A: PDB Molecule: uracil-dna glycosylase; PDBTitle: family 4 uracil-dna glycosylase from sulfolobus tokodaii (free form,2 x-ray wavelength=1.5418)
83	d2fi0a1	Alignment	not modelled	13.4	13	Fold: SP0561-like Superfamily: SP0561-like Family: SP0561-like
84	c1evjc	Alignment	not modelled	13.1	17	PDB header: oxidoreductase Chain: C: PDB Molecule: glucose-fructose oxidoreductase; PDBTitle: crystal structure of glucose-fructose oxidoreductase (gfor)2 delta-1-2 s64d
85	c4xb5A	Alignment	not modelled	13.0	41	PDB header: lyase Chain: A: PDB Molecule: deoxyribose-phosphate aldolase; PDBTitle: 2-deoxyribose-5-phosphate aldolase mutant - e78k
86	c2bn5A	Alignment	not modelled	12.8	26	PDB header: nuclear protein Chain: A: PDB Molecule: psi; PDBTitle: p-element somatic inhibitor protein complex with u1-70k2 proline-rich peptide
87	d1phna	Alignment	not modelled	12.5	8	Fold: Globin-like Superfamily: Globin-like Family: Phycocyanin-like phycobilisome proteins
88	d1jboa	Alignment	not modelled	12.2	16	Fold: Globin-like Superfamily: Globin-like Family: Phycocyanin-like phycobilisome proteins
89	c2n5xA	Alignment	not modelled	12.2	50	PDB header: chaperone Chain: A: PDB Molecule: hsp90 co-chaperone cdc37; PDBTitle: c-terminal domain of cdc37 cochaperone
90	c5wu5C	Alignment	not modelled	12.1	19	PDB header: transferase Chain: C: PDB Molecule: speckle targeted pip5k1a-regulated poly(a) polymerase; PDBTitle: crystal structure of apo human tut1, form iii
91	c2ho3D	Alignment	not modelled	11.5	22	PDB header: oxidoreductase Chain: D: PDB Molecule: oxidoreductase, gfo/idh/moca family; PDBTitle: crystal structure of oxidoreductase, gfo/idh/moca family from2 streptococcus pneumoniae
92	d1cpca	Alignment	not modelled	11.1	14	Fold: Globin-like Superfamily: Globin-like Family: Phycocyanin-like phycobilisome proteins
93	c3r66A	Alignment	not modelled	11.0	13	PDB header: viral protein/antiviral protein Chain: A: PDB Molecule: non-structural protein 1; PDBTitle: crystal structure of human isg15 in complex with ns1 n-terminal region2 from influenza virus b, northeast structural genomics consortium3 target ids hx6481, hr2873, and or2
94	d1xeqa1	Alignment	not modelled	10.9	13	Fold: S15/NS1 RNA-binding domain Superfamily: S15/NS1 RNA-binding domain Family: N-terminal, RNA-binding domain of nonstructural protein NS1
95	c5e4rA	Alignment	not modelled	10.8	38	PDB header: oxidoreductase Chain: A: PDB Molecule: ketol-acid reductoisomerase; PDBTitle: crystal structure of domain-duplicated synthetic class ii ketol-acid2 reductoisomerase 2ia_kari-dd
96	c2bn6A	Alignment	not modelled	10.8	28	PDB header: nuclear protein Chain: A: PDB Molecule: psi; PDBTitle: p-element somatic inhibitor protein
97	c5ncaA	Alignment	not modelled	10.7	33	PDB header: structural protein Chain: A: PDB Molecule: competence protein comgc; PDBTitle: solution structure of comgc from streptococcus pneumoniae
98	d1aora1	Alignment	not modelled	10.5	9	Fold: Aldehyde ferredoxin oxidoreductase, C-terminal domains Superfamily: Aldehyde ferredoxin oxidoreductase, C-terminal domains Family: Aldehyde ferredoxin oxidoreductase, C-terminal domains
99	c3o3nA	Alignment	not modelled	10.4	10	PDB header: lyase Chain: A: PDB Molecule: alpha-subunit 2-hydroxyisocaproyl-coa dehydratase; PDBTitle: (r)-2-hydroxyisocaproyl-coa dehydratase in complex with its substrate2 (r)-2-hydroxyisocaproyl-coa