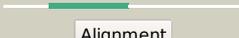
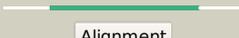
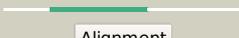
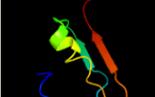
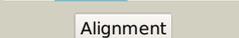
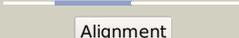
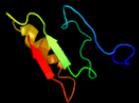
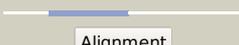
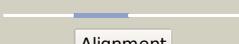
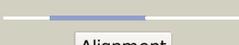
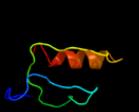
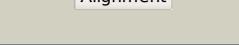
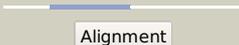


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD2360c_(-)_2642160_2642588
Date	Mon Aug 5 13:25:51 BST 2019
Unique Job ID	eb053117e3f4d687

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3earA_	 Alignment		48.9	10	PDB header: hydrolase Chain: A: PDB Molecule: hera; PDBTitle: novel dimerization motif in the dead box rna helicase hera: form 1,2 partial dimer
2	c2fzIA_	 Alignment		47.2	14	PDB header: dna binding protein Chain: A: PDB Molecule: dna repair protein rad25, xpb; PDBTitle: structure of c-terminal domain of archaeoglobus fulgidus xpb
3	c5jcfB_	 Alignment		45.6	12	PDB header: immune system Chain: B: PDB Molecule: melanoma differentiation associated protein-5; PDBTitle: crystal structure of chicken mda5 with 5'p 10-mer dsrna and adp-mg2+2 at 2.6 a resolution (orthorhombic form).
4	c5zamA_	 Alignment		45.5	20	PDB header: hydrolase/protein binding/rna Chain: A: PDB Molecule: endoribonuclease dicer; PDBTitle: cryo-em structure of human dicer and its complexes with a pre-mirna2 substrate
5	d2plga1	 Alignment		42.6	13	Fold: Secretion chaperone-like Superfamily: Type III secretory system chaperone-like Family: TII0839-like
6	c5jb2A_	 Alignment		40.4	15	PDB header: immune system Chain: A: PDB Molecule: lgp2; PDBTitle: crystal structure of chicken lgp2 with 5'ppp 10-mer dsrna and adp-2 alf4-mg2+ at 2.2 a resolution.
7	c4gl2A_	 Alignment		40.0	16	PDB header: rna binding protein/rna Chain: A: PDB Molecule: interferon-induced helicase c domain-containing protein 1; PDBTitle: structural basis for dsrna duplex backbone recognition by mda5
8	c2d7dA_	 Alignment		38.9	18	PDB header: hydrolase/dna Chain: A: PDB Molecule: uvrabc system protein b; PDBTitle: structural insights into the cryptic dna dependent atp-ase2 activity of uvrbc
9	c2p6nA_	 Alignment		34.9	7	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase ddx41; PDBTitle: human dead-box rna helicase ddx41, helicase domain
10	d2fwra1	 Alignment		30.9	14	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
11	d1s2ma2	 Alignment		28.3	7	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain

12	d1t5la2	 Alignment		24.9	18	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
13	c2i4iA	 Alignment		24.5	15	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase ddx3x; PDBTitle: crystal structure of human dead-box rna helicase ddx3x
14	c1wp9D	 Alignment		24.5	9	PDB header: hydrolase Chain: D: PDB Molecule: atp-dependent rna helicase, putative; PDBTitle: crystal structure of pyrococcus furiosus hef helicase domain
15	c2v1xB	 Alignment		24.5	6	PDB header: hydrolase Chain: B: PDB Molecule: atp-dependent dna helicase q1; PDBTitle: crystal structure of human recq-like dna helicase
16	c4kbfA	 Alignment		24.3	12	PDB header: hydrolase Chain: A: PDB Molecule: heat resistant rna dependent atpase; PDBTitle: two different open conformations of the helicase core of the rna2 helicase hera
17	d1oywa3	 Alignment		23.7	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
18	c3i32A	 Alignment		23.3	8	PDB header: rna binding protein,hydrolase Chain: A: PDB Molecule: heat resistant rna dependent atpase; PDBTitle: dimeric structure of a hera helicase fragment including the c-terminal2 reca domain, the dimerization domain, and the rna binding domain
19	c4ljyA	 Alignment		22.9	7	PDB header: hydrolase Chain: A: PDB Molecule: pre-mrna-processing atp-dependent rna helicase prp5; PDBTitle: crystal structure of rna splicing effector prp5 in complex with adp
20	c4w7sA	 Alignment		22.1	6	PDB header: hydrolase Chain: A: PDB Molecule: pre-mrna-splicing atp-dependent rna helicase prp28; PDBTitle: crystal structure of the yeast dead-box splicing factor prp28 at 2.542 angstroms resolution
21	c4d25A	 Alignment	not modelled	21.7	11	PDB header: hydrolase Chain: A: PDB Molecule: bmvlg protein; PDBTitle: crystal structure of the bombyx mori vasa helicase (e339q)2 in complex with rna and amppnp
22	c2z0mA	 Alignment	not modelled	21.4	12	PDB header: rna binding protein Chain: A: PDB Molecule: 337aa long hypothetical atp-dependent rna PDBTitle: crystal structure of hypothetical atp-dependent rna2 helicase from sulfolobus tokodaii
23	c2vjtd	 Alignment	not modelled	21.2	6	PDB header: hydrolase inhibitor/hydrolase Chain: D: PDB Molecule: atp-dependent rna helicase srmb; PDBTitle: crystal structure of e. coli dead-box protein srmb bound to regulator2 of ribonuclease activity a (rraa)
24	c6ne3W	 Alignment	not modelled	21.1	14	PDB header: dna binding protein/dna Chain: W: PDB Molecule: swi/snf-related matrix-associated actin-dependent regulator PDBTitle: cryo-em structure of singly-bound snf2h-nucleosome complex with snf2h2 bound at shl-2
25	c3tmiA	 Alignment	not modelled	21.0	7	PDB header: hydrolase/rna Chain: A: PDB Molecule: atp-dependent rna helicase ddx58; PDBTitle: structural basis for rna recognition and activation of rig-i
26	c1oywA	 Alignment	not modelled	20.0	13	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent dna helicase; PDBTitle: structure of the recq catalytic core
27	c2hjbB	 Alignment	not modelled	20.0	12	PDB header: hydrolase Chain: B: PDB Molecule: atp-dependent rna helicase dbpa; PDBTitle: structure of the second domain (residues 207-368) of the2 bacillus subtilis yxin protein
28	d1ikpa3	 Alignment	not modelled	19.7	43	Fold: Toxins' membrane translocation domains Superfamily: Exotoxin A, middle domain Family: Exotoxin A, middle domain

29	d2p6ra4	Alignment	not modelled	19.4	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
30	c4pxaA_	Alignment	not modelled	19.4	11	PDB header: translation, rna binding protein Chain: A: PDB Molecule: atp-dependent rna helicase ddx3x; PDBTitle: dead-box rna helicase ddx3x cancer-associated mutant d354v
31	c4db4A_	Alignment	not modelled	19.1	8	PDB header: rna-binding protein/dna,rna Chain: A: PDB Molecule: atp-dependent rna helicase mss116, mitochondrial; PDBTitle: mss116p dead-box helicase domain 2 bound to a chimaeric rna-dna duplex
32	c5supB_	Alignment	not modelled	18.8	7	PDB header: hydrolase/rna Chain: B: PDB Molecule: atp-dependent rna helicase sub2; PDBTitle: structure of mrna export factors
33	c6iroL_	Alignment	not modelled	18.6	16	PDB header: dna binding protein/dna Chain: L: PDB Molecule: iswi chromatin-remodeling complex atpase isw1; PDBTitle: the crosslinked complex of iswi-nucleosome in the adp-bound state
34	d1k3ea_	Alignment	not modelled	18.4	10	Fold: Secretion chaperone-like Superfamily: Type III secretory system chaperone-like Family: Type III secretory system chaperone
35	d2j0sa2	Alignment	not modelled	16.5	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
36	c5qi4A_	Alignment	not modelled	15.4	8	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase dead; PDBTitle: dead-box rna helicase
37	c4q47A_	Alignment	not modelled	15.1	15	PDB header: dna binding protein Chain: A: PDB Molecule: dna helicase recq; PDBTitle: structure of the drrecq catalytic core in complex with adp
38	c1c4oA_	Alignment	not modelled	14.9	20	PDB header: replication Chain: A: PDB Molecule: dna nucleotide excision repair enzyme uvrb; PDBTitle: crystal structure of the dna nucleotide excision repair enzyme uvrb2 from thermus thermophilus
39	c6r77B_	Alignment	not modelled	14.3	8	PDB header: lyase Chain: B: PDB Molecule: proline racemase; PDBTitle: crystal structure of trans-3-hydroxy-l-proline dehydratase in complex2 with substrate - closed conformation
40	c5gn1D_	Alignment	not modelled	13.4	18	PDB header: hydrolase Chain: D: PDB Molecule: atp-dependent helicase fun30; PDBTitle: crystal structure of the c-terminal part of fun30 atpase domain
41	c5dtuA_	Alignment	not modelled	13.3	4	PDB header: hydrolase Chain: A: PDB Molecule: prp28; PDBTitle: crystal structure of the rna-helicase prp28 from chaetomium2 thermophilum bound to adp
42	c1s2mA_	Alignment	not modelled	13.2	7	PDB header: rna binding protein Chain: A: PDB Molecule: putative atp-dependent rna helicase dhh1; PDBTitle: crystal structure of the dead box protein dhh1p
43	c2db3D_	Alignment	not modelled	13.1	7	PDB header: hydrolase/rna Chain: D: PDB Molecule: atp-dependent rna helicase vasa; PDBTitle: structural basis for rna unwinding by the dead-box protein2 drosophila vasa
44	c4ct4B_	Alignment	not modelled	13.0	4	PDB header: rna binding protein Chain: B: PDB Molecule: probable atp-dependent rna helicase ddx6; PDBTitle: cnot1 mif4g domain - ddx6 complex
45	d1ydua1	Alignment	not modelled	12.6	10	Fold: At5g01610-like Superfamily: At5g01610-like Family: At5g01610-like
46	c4nhoA_	Alignment	not modelled	12.6	3	PDB header: hydrolase Chain: A: PDB Molecule: probable atp-dependent rna helicase ddx23; PDBTitle: structure of the spliceosomal dead-box protein prp28
47	c2xsgB_	Alignment	not modelled	12.3	40	PDB header: hydrolase Chain: B: PDB Molecule: ccman5; PDBTitle: structure of the gh92 family glycosyl hydrolase ccman5
48	c4cdgA_	Alignment	not modelled	11.8	13	PDB header: hydrolase Chain: A: PDB Molecule: bloom syndrome protein; PDBTitle: crystal structure of the bloom's syndrome helicase blm in complex with2 nanobody
49	c3fhtA_	Alignment	not modelled	11.6	12	PDB header: hydrolase/rna Chain: A: PDB Molecule: atp-dependent rna helicase ddx19b; PDBTitle: crystal structure of human dbp5 in complex with amppnp and rna
50	c5ve9C_	Alignment	not modelled	11.4	20	PDB header: protein binding Chain: C: PDB Molecule: microtubule-actin cross-linking factor 1, isoforms 1/2/3/5; PDBTitle: structure of hacf7 ef1-ef2-gar domains
51	c5lstA_	Alignment	not modelled	11.1	12	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent dna helicase q4; PDBTitle: crystal structure of the human recq4 helicase.
52	c6em3D_	Alignment	not modelled	10.9	15	PDB header: ribosome Chain: D: PDB Molecule: atp-dependent rna helicase has1; PDBTitle: state a architectural model (nsa1-tap flag-ytm1) - visualizing the2 assembly pathway of nucleolar pre-60s ribosomes
53	c1hv8B_	Alignment	not modelled	10.8	7	PDB header: rna binding protein Chain: B: PDB Molecule: putative atp-dependent rna helicase mj0669; PDBTitle: crystal structure of a dead box protein from the2 hyperthermophile methanococcus jannaschii
						PDB header: hydrolase Chain: B: PDB Molecule: mutative alpha-1.2-mannosidase:

54	c6f92B_	Alignment	not modelled	10.7	30	PDBTitle: structure of the family gh92 alpha-mannosidase bt3965 from bacteroides2 thetaiotaomicron in complex with mannoimidazole (mani)
55	c6iegA_	Alignment	not modelled	10.5	11	PDB header: rna binding protein Chain: A: PDB Molecule: exosome rna helicase mtr4; PDBTitle: crystal structure of human mtr4
56	c5dz8A_	Alignment	not modelled	10.2	35	PDB header: cell adhesion Chain: A: PDB Molecule: bspa (bspa_v); PDBTitle: streptococcus agalactiae agi/ii polypeptide bspa variable (v) domain
57	c1xtkA_	Alignment	not modelled	10.0	9	PDB header: gene regulation Chain: A: PDB Molecule: probable atp-dependent rna helicase p47; PDBTitle: structure of decd to dead mutation of human uap56
58	c3dnfB_	Alignment	not modelled	9.5	22	PDB header: oxidoreductase Chain: B: PDB Molecule: 4-hydroxy-3-methylbut-2-enyl diphosphate reductase; PDBTitle: structure of (e)-4-hydroxy-3-methyl-but-2-enyl diphosphate reductase,2 the terminal enzyme of the non-mevalonate pathway
59	c6fmIG_	Alignment	not modelled	9.4	12	PDB header: dna binding protein Chain: G: PDB Molecule: ino80; PDBTitle: cryoem structure ino80core nucleosome complex
60	c3eiqD_	Alignment	not modelled	8.6	11	PDB header: hydrolase/antitumor protein Chain: D: PDB Molecule: eukaryotic initiation factor 4a-i; PDBTitle: crystal structure of pdcd4-eif4a
61	d1tf5a4	Alignment	not modelled	8.3	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
62	c4n7bA_	Alignment	not modelled	8.2	21	PDB header: oxidoreductase Chain: A: PDB Molecule: lytb; PDBTitle: structure of the e-1-hydroxy-2-methyl-but-2-enyl-4-diphosphate2 reductase from plasmodium falciparum
63	c4xqkB_	Alignment	not modelled	8.0	11	PDB header: hydrolase/dna Chain: B: PDB Molecule: llabiii; PDBTitle: atp-dependent type isp restriction-modification enzyme llabiii bound2 to dna
64	c2fwrA_	Alignment	not modelled	7.8	10	PDB header: dna binding protein Chain: A: PDB Molecule: dna repair protein rad25; PDBTitle: structure of archaeoglobus fulgidis xpb
65	c1ikqA_	Alignment	not modelled	7.8	43	PDB header: transferase Chain: A: PDB Molecule: exotoxin a; PDBTitle: pseudomonas aeruginosa exotoxin a, wild type
66	c2ww1B_	Alignment	not modelled	7.7	30	PDB header: hydrolase Chain: B: PDB Molecule: putative alpha-1,2-mannosidase; PDBTitle: structure of the family gh92 inverting mannosidase bt39902 from bacteroides thetaiotaomicron vpi-5482 in complex with3 thiomannobioside
67	c4a8jA_	Alignment	not modelled	7.5	22	PDB header: transcription Chain: A: PDB Molecule: elongator complex protein 4; PDBTitle: crystal structure of the elongator subcomplex elp456
68	c2azpA_	Alignment	not modelled	7.5	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein pa1268; PDBTitle: crystal structure of pa1268 solved by sulfur sad
69	c2hxyC_	Alignment	not modelled	7.4	16	PDB header: hydrolase Chain: C: PDB Molecule: probable atp-dependent rna helicase ddx48; PDBTitle: crystal structure of human apo-eif4aiii
70	c6f90A_	Alignment	not modelled	7.3	30	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,2-mannosidase, putative; PDBTitle: structure of the family gh92 alpha-mannosidase bt3130 from bacteroides2 thetaiotaomicron in complex with mannoimidazole (mani)
71	c4kngF_	Alignment	not modelled	7.0	31	PDB header: signaling protein, membrane protein Chain: F: PDB Molecule: e3 ubiquitin-protein ligase rnf43; PDBTitle: crystal structure of human lgr5-rspo1-rnf43
72	d1gm5a4	Alignment	not modelled	7.0	4	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
73	c2vsxA_	Alignment	not modelled	7.0	10	PDB header: translation/hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase eif4a; PDBTitle: crystal structure of a translation initiation complex
74	d1jx4a1	Alignment	not modelled	6.9	37	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
75	c2wvyA_	Alignment	not modelled	6.9	20	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,2-mannosidase; PDBTitle: structure of the family gh92 inverting mannosidase bt21992 from bacteroides thetaiotaomicron vpi-5482
76	c3ke8A_	Alignment	not modelled	6.8	27	PDB header: oxidoreductase Chain: A: PDB Molecule: 4-hydroxy-3-methylbut-2-enyl diphosphate reductase; PDBTitle: crystal structure of isph:hmbpp-complex
77	c3f13A_	Alignment	not modelled	6.8	42	PDB header: hydrolase Chain: A: PDB Molecule: putative nudix hydrolase family member; PDBTitle: crystal structure of putative nudix hydrolase family member from2 chromobacterium violaceum
78	c3ewsA_	Alignment	not modelled	6.7	12	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent rna helicase ddx19b; PDBTitle: human dead-box rna-helicase ddx19 in complex with adp
79	c4I92A_	Alignment	not modelled	6.7	57	PDB header: viral protein Chain: A: PDB Molecule: receptor binding protein; PDBTitle: structure of the rbp from lactococcal phage 1358 in

						complex with 22 glcna molecules
80	d1wp9a2	Alignment	not modelled	6.5	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
81	c3urkA	Alignment	not modelled	6.4	27	PDB header: oxidoreductase Chain: A: PDB Molecule: 4-hydroxy-3-methylbut-2-enyl diphosphate reductase; PDBTitle: isph in complex with propynyl diphosphate (1061)
82	c3oiyB	Alignment	not modelled	6.0	13	PDB header: isomerase Chain: B: PDB Molecule: reverse gyrase helicase domain; PDBTitle: helicase domain of reverse gyrase from thermotoga maritima
83	c6c0fp	Alignment	not modelled	5.8	13	PDB header: ribosome Chain: P: PDB Molecule: 60s ribosomal protein l17-a; PDBTitle: yeast nucleolar pre-60s ribosomal subunit (state 2)
84	c2oo4B	Alignment	not modelled	5.7	21	PDB header: cell cycle,signaling protein Chain: B: PDB Molecule: neurogenic locus notch homolog protein 2; PDBTitle: structure of Inr-hd (negative regulatory region) from human notch 2
85	c3epuB	Alignment	not modelled	5.5	15	PDB header: chaperone Chain: B: PDB Molecule: stm2138 virulence chaperone; PDBTitle: crystal structure of stm2138, a novel virulence chaperone in2 salmonella
86	d2g2ja1	Alignment	not modelled	5.4	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
87	c2xvsA	Alignment	not modelled	5.3	25	PDB header: antitumor protein Chain: A: PDB Molecule: tetratricopeptide repeat protein 5; PDBTitle: crystal structure of human ttc5 (strap) c-terminal ob2 domain
88	c5v9xA	Alignment	not modelled	5.2	13	PDB header: hydrolase/dna Chain: A: PDB Molecule: atp-dependent dna helicase; PDBTitle: structure of mycobacterium smegmatis helicase lhr bound to ssdna and2 amp-pnp
89	c5yvva	Alignment	not modelled	5.2	19	PDB header: viral protein Chain: A: PDB Molecule: genome polyprotein; PDBTitle: crystal structures of unlinked full length ns3 from dengue virus2 provide insights into dynamics of protease domain
90	c3mx7A	Alignment	not modelled	5.1	20	PDB header: apoptosis Chain: A: PDB Molecule: fas apoptotic inhibitory molecule 1; PDBTitle: crystal structure analysis of human faim-ntd