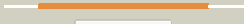

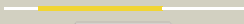




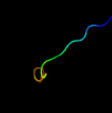



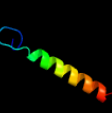



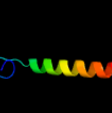





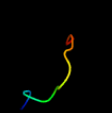


# Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD2963 (-) _3315246_3316466
Date	Thu Aug 8 16:20:12 BST 2019
Unique Job ID	91ead3e914fafd84

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c4ky0B_</a>	 Alignment		87.0	13	<b>PDB header:</b> transport protein, membrane protein <b>Chain:</b> B: <b>PDB Molecule:</b> proton/glutamate symporter, sdf family; <b>PDBTitle:</b> crystal structure of a substrate-free glutamate transporter homologue2 from thermococcus kodakarensis
2	<a href="#">c5l2bC_</a>	 Alignment		75.1	14	<b>PDB header:</b> transport protein <b>Chain:</b> C: <b>PDB Molecule:</b> nucleoside permease; <b>PDBTitle:</b> crystal structure of a substrate-free glutamate transporter homologue2 from thermococcus kodakarensis
3	<a href="#">c3tijA_</a>	 Alignment		68.4	16	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> nupc family protein; <b>PDBTitle:</b> crystal structure of a concentrative nucleoside transporter from2 vibrio cholerae
4	<a href="#">c3vu1A_</a>	 Alignment		60.1	50	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein ph0242; <b>PDBTitle:</b> crystal structure of the c-terminal globular domain of f2 oligosaccharyltransferase (phaglb-l, o74088_pyrho) from pyrococcus3 horikoshii
5	<a href="#">c4n7wA_</a>	 Alignment		58.4	13	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> transporter, sodium/bile acid symporter family; <b>PDBTitle:</b> crystal structure of the sodium bile acid symporter from yersinia2 frederiksenii
6	<a href="#">c6b2zf_</a>	 Alignment		42.7	29	<b>PDB header:</b> membrane protein <b>Chain:</b> F: <b>PDB Molecule:</b> atp synthase subunit c, mitochondrial; <b>PDBTitle:</b> cryo-em structure of the dimeric fo region of yeast mitochondrial atp2 synthase
7	<a href="#">c2xq2A_</a>	 Alignment		42.6	13	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sodium/glucose cotransporter; <b>PDBTitle:</b> structure of the k294a mutant of vsplt
8	<a href="#">c6b8ht_</a>	 Alignment		40.7	29	<b>PDB header:</b> membrane protein <b>Chain:</b> T: <b>PDB Molecule:</b> atp synthase subunit 9, mitochondrial; <b>PDBTitle:</b> mosaic model of yeast mitochondrial atp synthase monomer
9	<a href="#">c6gctA_</a>	 Alignment		39.4	11	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> neutral amino acid transporter b(0); <b>PDBTitle:</b> cryo-em structure of the human neutral amino acid transporter asct2
10	<a href="#">d2nwwa1</a>	 Alignment		33.5	16	<b>Fold:</b> Proton glutamate symport protein <b>Superfamily:</b> Proton glutamate symport protein <b>Family:</b> Proton glutamate symport protein
11	<a href="#">c5xbcB_</a>	 Alignment		32.0	36	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> nsp1 protein; <b>PDBTitle:</b> crystal structure basis for pedv nsp1

12	<a href="#">c1kn7A_</a>	Alignment		25.4	38	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> voltage-gated potassium channel protein kv1.4; <b>PDBTitle:</b> solution structure of the tandem inactivation domain2 (residues 1-75) of potassium channel rck4 (kv1.4)
13	<a href="#">c2jmrA_</a>	Alignment		23.6	29	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> fimf; <b>PDBTitle:</b> nmr structure of the e. coli type 1 pilus subunit fimf
14	<a href="#">c3nk3C_</a>	Alignment		21.7	36	<b>PDB header:</b> cell adhesion <b>Chain:</b> C: <b>PDB Molecule:</b> zona pellucida 3; <b>PDBTitle:</b> crystal structure of full-length sperm receptor zp3 at 2.6 a2 resolution
15	<a href="#">c2k2bA_</a>	Alignment		21.2	29	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> degenerin mec-4; <b>PDBTitle:</b> sparse-constraint solution nmr structure of micelle-2 solubilized cytosolic amino terminal domain of c. elegans3 mechanosensory ion channel subunit mec-4. new york4 consortium on membrane protein structure (nycomps) (casp5 target)
16	<a href="#">c3nk4C_</a>	Alignment		21.0	38	<b>PDB header:</b> cell adhesion <b>Chain:</b> C: <b>PDB Molecule:</b> zona pellucida 3; <b>PDBTitle:</b> crystal structure of full-length sperm receptor zp3 at 2.0 a2 resolution
17	<a href="#">c2lifA_</a>	Alignment		19.1	33	<b>PDB header:</b> recombination/dna <b>Chain:</b> A: <b>PDB Molecule:</b> integration host factor; <b>PDBTitle:</b> single chain integration host factor mutant protein (scihf2-k45ae) in2 complex with dna
18	<a href="#">c2k74A_</a>	Alignment		17.2	21	<b>PDB header:</b> membrane protein, oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> disulfide bond formation protein b; <b>PDBTitle:</b> solution nmr structure of dsbb-ubiquinone complex
19	<a href="#">d2r6gf1</a>	Alignment		14.8	14	<b>Fold:</b> MalF N-terminal region-like <b>Superfamily:</b> MalF N-terminal region-like <b>Family:</b> MalF N-terminal region-like
20	<a href="#">c2gj0A_</a>	Alignment		13.5	27	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> cycloviolacin o14; <b>PDBTitle:</b> cycloviolacin o14
21	<a href="#">c6dhrA_</a>	Alignment	not modelled	13.5	29	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> rivi3; <b>PDBTitle:</b> nmr solution structure of rivi3
22	<a href="#">c2wpnB_</a>	Alignment	not modelled	13.4	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> periplasmic [nifese] hydrogenase, large subunit, <b>PDBTitle:</b> structure of the oxidised, as-isolated nifese hydrogenase from d.2 vulgaris hildenborough
23	<a href="#">c1orxA_</a>	Alignment	not modelled	13.2	14	<b>PDB header:</b> antibiotic <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1; <b>PDBTitle:</b> solution structure of the acyclic permutant des-(24-28)-2 kalata b1.
24	<a href="#">c2bbjB_</a>	Alignment	not modelled	12.3	14	<b>PDB header:</b> metal transport/membrane protein <b>Chain:</b> B: <b>PDB Molecule:</b> divalent cation transport-related protein; <b>PDBTitle:</b> crystal structure of the cora mg2+ transporter
25	<a href="#">c2k7gA_</a>	Alignment	not modelled	12.3	29	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> varv peptide f; <b>PDBTitle:</b> solution structure of varv f
26	<a href="#">c3e4hA_</a>	Alignment	not modelled	12.2	29	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> varv peptide f; <b>PDBTitle:</b> crystal structure of the cyclotide varv f
27	<a href="#">c3wdoA_</a>	Alignment	not modelled	11.8	15	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> mfs transporter; <b>PDBTitle:</b> structure of e. coli yajr transporter
28	<a href="#">c2lamA_</a>	Alignment	not modelled	11.3	29	<b>PDB header:</b> antiviral protein <b>Chain:</b> A: <b>PDB Molecule:</b> cyclotide cter m; <b>PDBTitle:</b> three-dimensional structure of the cyclotide cter m
29	<a href="#">c5y50A_</a>	Alignment	not modelled	11.1	11	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> protein detoxification 14;

						<b>PDBTitle:</b> crystal structure of eukaryotic mate transporter atdtx14
30	<a href="#">c2yvxD</a>	Alignment	not modelled	11.0	16	<b>PDB header:</b> transport protein <b>Chain:</b> D: <b>PDB Molecule:</b> mg2+ transporter mgte; <b>PDBTitle:</b> crystal structure of magnesium transporter mgte
31	<a href="#">c2voyB</a>	Alignment	not modelled	10.8	15	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> sarcoplasmic/endoplasmic reticulum calcium atpase 1; <b>PDBTitle:</b> cryoem model of copa, the copper transporting atpase from <i>2 archaeoglobus fulgidus</i>
32	<a href="#">c1k48A</a>	Alignment	not modelled	10.4	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1; <b>PDBTitle:</b> refined structure and disulfide pairing of the kalata b12 peptide
33	<a href="#">c1jzA</a>	Alignment	not modelled	10.3	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1; <b>PDBTitle:</b> refined structure and disulfide pairing of the kalata b12 peptide
34	<a href="#">c1n1uA</a>	Alignment	not modelled	10.3	0	<b>PDB header:</b> antibiotic <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1; <b>PDBTitle:</b> nmr structure of [ala1,15]kalata b1
35	<a href="#">d1n1ua</a>	Alignment	not modelled	10.3	0	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> Cyclotides <b>Family:</b> Kalata B1
36	<a href="#">d1pt4a</a>	Alignment	not modelled	10.3	29	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> Cyclotides <b>Family:</b> Kalata B1
37	<a href="#">c4ttnA</a>	Alignment	not modelled	10.0	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> quasi-racemic structure of [g6a]kalata b1
38	<a href="#">c4ttoA</a>	Alignment	not modelled	10.0	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> quasi-racemic structure of [v25a] kalata b1
39	<a href="#">c4ttmA</a>	Alignment	not modelled	9.8	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> racemic structure of kalata b1 (kb1)
40	<a href="#">c2khaA</a>	Alignment	not modelled	9.8	14	<b>PDB header:</b> antimicrobial protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> solution structure of linear kalata b1 (loop 6)
41	<a href="#">c2f2IA</a>	Alignment	not modelled	9.8	14	<b>PDB header:</b> antimicrobial protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> solution structure of [p20d,v21k]-kalata b1
42	<a href="#">c6re80</a>	Alignment	not modelled	9.8	35	<b>PDB header:</b> proton transport <b>Chain:</b> 0: <b>PDB Molecule:</b> asa-10: polytomella f-atp synthase associated subunit 10; <b>PDBTitle:</b> cryo-em structure of polytomella f-atp synthase, rotary substate 2d,2 composite map
43	<a href="#">c2f2IA</a>	Alignment	not modelled	9.5	14	<b>PDB header:</b> antimicrobial protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b1; <b>PDBTitle:</b> solution structure of [w19k, p20n, v21k]-kalata b1
44	<a href="#">d1nb1a</a>	Alignment	not modelled	9.5	14	<b>Fold:</b> Knottins (small inhibitors, toxins, lectins) <b>Superfamily:</b> Cyclotides <b>Family:</b> Kalata B1
45	<a href="#">c1nb1A</a>	Alignment	not modelled	9.5	14	<b>PDB header:</b> antibiotic <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1; <b>PDBTitle:</b> high resolution solution structure of kalata b1
46	<a href="#">c6k1hE</a>	Alignment	not modelled	9.2	15	<b>PDB header:</b> protein transport <b>Chain:</b> E: <b>PDB Molecule:</b> pts mannose/fructose/sorbose transporter subunit iic; <b>PDBTitle:</b> structure of membrane protein
47	<a href="#">c2mn1A</a>	Alignment	not modelled	9.1	9	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> kalata b1[w23ww]; <b>PDBTitle:</b> solution structure of kalata b1[w23ww]
48	<a href="#">c4b4aA</a>	Alignment	not modelled	9.1	17	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sec-independent protein translocase protein tatc; <b>PDBTitle:</b> structure of the tatc core of the twin arginine protein2 translocation system
49	<a href="#">c2I69A</a>	Alignment	not modelled	9.1	32	<b>PDB header:</b> de novo protein <b>Chain:</b> A: <b>PDB Molecule:</b> rossmann 2x3 fold protein; <b>PDBTitle:</b> solution nmr structure of de novo designed protein, p-loop ntpase2 fold, northeast structural genomics consortium target or28
50	<a href="#">d1o9ga</a>	Alignment	not modelled	9.0	14	<b>Fold:</b> S-adenosyl-L-methionine-dependent methyltransferases <b>Superfamily:</b> S-adenosyl-L-methionine-dependent methyltransferases <b>Family:</b> rRNA methyltransferase AviRa
51	<a href="#">c2mfrA</a>	Alignment	not modelled	7.9	30	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> insulin receptor; <b>PDBTitle:</b> solution structure of the transmembrane domain of the insulin receptor2 in micelles
52	<a href="#">c6d79A</a>	Alignment	not modelled	7.8	12	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> sulfate transporter cysz; <b>PDBTitle:</b> structure of cysz, a sulfate permease from <i>pseudomonas fragi</i>
53	<a href="#">c2fqaA</a>	Alignment	not modelled	7.4	29	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> violacin 1; <b>PDBTitle:</b> violacin a
54	<a href="#">c3v8vB</a>	Alignment	not modelled	7.4	19	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> ribosomal rna large subunit methyltransferase I; <b>PDBTitle:</b> crystal structure of bifunctional methyltransferase ycbY (rlmlk) from <i>2 escherichia coli</i> , sam binding <b>PDB header:</b> dna binding protein

55	<a href="#">c1g5hA_</a>	Alignment	not modelled	7.3	33	<b>Chain:</b> A: <b>PDB Molecule:</b> mitochondrial dna polymerase accessory subunit; <b>PDBTitle:</b> crystal structure of the accessory subunit of murine mitochondrial2 polymerase gamma
56	<a href="#">c2m9oA_</a>	Alignment	not modelled	7.3	14	<b>PDB header:</b> plant protein <b>Chain:</b> A: <b>PDB Molecule:</b> kalata-b7; <b>PDBTitle:</b> solution structure of kalata b7
57	<a href="#">c4eq7B_</a>	Alignment	not modelled	7.1	38	<b>PDB header:</b> transport protein <b>Chain:</b> B: <b>PDB Molecule:</b> abc transporter, substrate binding protein (polyamine); <b>PDBTitle:</b> structure of atu4243-gaba receptor
58	<a href="#">c2kukA_</a>	Alignment	not modelled	6.5	9	<b>PDB header:</b> antiviral protein <b>Chain:</b> A: <b>PDB Molecule:</b> leaf cyclotide 2; <b>PDBTitle:</b> solution structure of vhl-2
59	<a href="#">d1wuil1</a>	Alignment	not modelled	6.4	0	<b>Fold:</b> HydB/Nqo4-like <b>Superfamily:</b> HydB/Nqo4-like <b>Family:</b> Nickel-iron hydrogenase, large subunit
60	<a href="#">c2n2uA_</a>	Alignment	not modelled	6.2	47	<b>PDB header:</b> unknown function, structural genomics <b>Chain:</b> A: <b>PDB Molecule:</b> or358; <b>PDBTitle:</b> solution nmr structure of de novo designed ferredoxin fold protein2 sfr3, northeast structural genomics consortium (nesg) target or358
61	<a href="#">c2fqcA_</a>	Alignment	not modelled	5.5	21	<b>PDB header:</b> toxin <b>Chain:</b> A: <b>PDB Molecule:</b> conotoxin pl14a; <b>PDBTitle:</b> solution structure of conotoxin pl14a
62	<a href="#">c3ianA_</a>	Alignment	not modelled	5.3	33	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> chitinase; <b>PDBTitle:</b> crystal structure of a chitinase from lactococcus lactis subsp. lactis
63	<a href="#">c2kvoA_</a>	Alignment	not modelled	5.1	23	<b>PDB header:</b> photosynthesis <b>Chain:</b> A: <b>PDB Molecule:</b> photosystem ii reaction center psb28 protein; <b>PDBTitle:</b> solution nmr structure of photosystem ii reaction center psb28 protein2 from synechocystis sp.(strain pcc 6803), northeast structural3 genomics consortium target sgr171
64	<a href="#">c3ldgA_</a>	Alignment	not modelled	5.0	5	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein smu.472; <b>PDBTitle:</b> crystal structure of smu.472, a putative methyltransferase complexed2 with sah