

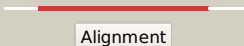



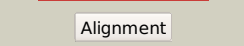





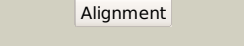

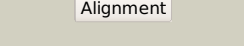
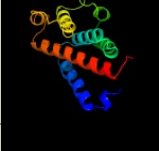
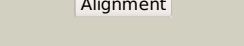

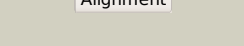

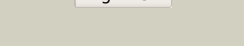



Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD1531 (-) _1732479_1733045
Date	Fri Aug 2 13:30:12 BST 2019
Unique Job ID	05b19f2eec40a38a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3c1B_	 Alignment		100.0	12	PDB header: oxidoreductase Chain: B: PDB Molecule: putative antioxidant defense protein mlr4105; PDBTitle: crystal structure of an antioxidant defense protein (mlr4105) from2 mesorhizobium loti maff303099 at 2.00 a resolution
2	c3lvyB_	 Alignment		100.0	14	PDB header: lyase Chain: B: PDB Molecule: carboxymuconolactone decarboxylase family; PDBTitle: crystal structure of carboxymuconolactone decarboxylase2 family protein smu.961 from streptococcus mutans
3	d2pfxa1	 Alignment		100.0	9	Fold: AhpD-like Superfamily: AhpD-like Family: Atu0492-like
4	d2prra1	 Alignment		100.0	14	Fold: AhpD-like Superfamily: AhpD-like Family: Atu0492-like
5	d2oyoa1	 Alignment		100.0	16	Fold: AhpD-like Superfamily: AhpD-like Family: Atu0492-like
6	c6ohiA_	 Alignment		100.0	16	PDB header: biosynthetic protein Chain: A: PDB Molecule: debrominase bmp8; PDBTitle: crystal structure of the debrominase bmp8 (apo)
7	d2gmya1	 Alignment		100.0	14	Fold: AhpD-like Superfamily: AhpD-like Family: Atu0492-like
8	d2o4da1	 Alignment		100.0	25	Fold: AhpD-like Superfamily: AhpD-like Family: Atu0492-like
9	d2ouwa1	 Alignment		99.9	19	Fold: AhpD-like Superfamily: AhpD-like Family: TTHA0727-like
10	c5dj4D_	 Alignment		99.8	14	PDB header: signaling protein Chain: D: PDB Molecule: sestrin-2; PDBTitle: leucine-bound sestrin2 from homo sapiens
11	c2qeua_	 Alignment		99.3	16	PDB header: lyase Chain: A: PDB Molecule: putative carboxymuconolactone decarboxylase; PDBTitle: crystal structure of putative carboxymuconolactone decarboxylase2 (yp_555818.1) from burkholderia xenovorans lb400 at 1.65 a resolution

12	c3beyC_	Alignment		99.3	20	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: conserved protein o27018; PDBTitle: crystal structure of the protein o27018 from methanobacterium2 thermoautotrophicum. northeast structural genomics consortium target3 tt217
13	c5djpB_	Alignment		99.3	18	PDB header: oxidoreductase Chain: B: PDB Molecule: alkyl hydroperoxide reductase ahpd; PDBTitle: crystal structure of lpg0406 in reduced form from legionella2 pneumophila
14	c1p8cD_	Alignment		99.3	21	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: conserved hypothetical protein; PDBTitle: crystal structure of tm1620 (apc4843) from thermotoga2 maritima
15	d2q0ta1	Alignment		99.2	19	Fold: AhpD-like Superfamily: AhpD-like Family: AhpD
16	d2cwqa1	Alignment		99.2	20	Fold: AhpD-like Superfamily: AhpD-like Family: TTHA0727-like
17	d1vkea_	Alignment		99.2	16	Fold: AhpD-like Superfamily: AhpD-like Family: CMD-like
18	c3d7iB_	Alignment		99.1	20	PDB header: lyase Chain: B: PDB Molecule: carboxymuconolactone decarboxylase family protein; PDBTitle: crystal structure of carboxymuconolactone decarboxylase family protein2 possibly involved in oxygen detoxification (1591455) from3 methanococcus jannaschii at 1.75 a resolution
19	d1vkeb_	Alignment		98.9	21	Fold: AhpD-like Superfamily: AhpD-like Family: CMD-like
20	c4g9qA_	Alignment		98.8	20	PDB header: lyase Chain: A: PDB Molecule: 4-carboxymuconolactone decarboxylase; PDBTitle: crystal structure of a 4-carboxymuconolactone decarboxylase
21	d1knca_	Alignment	not modelled	98.8	12	Fold: AhpD-like Superfamily: AhpD-like Family: AhpD
22	c5gzxD_	Alignment	not modelled	98.3	8	PDB header: hydrolase Chain: D: PDB Molecule: (r)-2-haloacid dehalogenase; PDBTitle: the complex structure of d-2-haloacid dehalogenase mutant with d-2-cpa
23	d2af7a1	Alignment	not modelled	97.8	29	Fold: AhpD-like Superfamily: AhpD-like Family: CMD-like
24	d1a9xa1	Alignment	not modelled	87.2	14	Fold: Carbamoyl phosphate synthetase, large subunit connection domain Superfamily: Carbamoyl phosphate synthetase, large subunit connection domain Family: Carbamoyl phosphate synthetase, large subunit connection domain
25	d2p7vb1	Alignment	not modelled	56.1	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
26	d1ngra_	Alignment	not modelled	47.4	15	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
27	c5dotA_	Alignment	not modelled	44.0	9	PDB header: ligase Chain: A: PDB Molecule: carbamoyl-phosphate synthase [ammonia], mitochondrial; PDBTitle: crystal structure of human carbamoyl phosphate synthetase i (cps1),2 apo form
28	c6ac5A_	Alignment	not modelled	43.5	9	PDB header: signaling protein Chain: A: PDB Molecule: receptor-interacting serine/threonine-protein kinase 1; PDBTitle: crystal structure of ripk1 death domain glcnacylated by

						epec effector2 nleb PDB header: ligase Chain: C: PDB Molecule: carbamoyl-phosphate synthase [ammonia], mitochondrial; PDBTitle: crystal structure of human carbamoyl phosphate synthetase i (cps1),2 ligand-bound form
29	c5douC	Alignment	not modelled	38.8	9	PDB header: chaperone Chain: A: PDB Molecule: rubisco accumulation factor 1, isoform 2; PDBTitle: the n-terminal domain of rubisco accumulation factor 1 from2 arabidopsis thaliana
30	c4wt3A	Alignment	not modelled	37.6	15	PDB header: ligase Chain: E: PDB Molecule: carbamoyl phosphate synthetase large chain; PDBTitle: crystal structure of the g359f (small subunit) point mutant of2 carbamoyl phosphate synthetase
31	c1m6vE	Alignment	not modelled	37.0	14	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
32	d1ddfa	Alignment	not modelled	36.9	9	PDB header: protein binding Chain: A: PDB Molecule: ankyrin-3; PDBTitle: crystal structure of human ankyrin g death domain
33	c4o6xA	Alignment	not modelled	35.2	9	PDB header: apoptosis Chain: A: PDB Molecule: death domain containing membrane protein nradd; PDBTitle: solution structure of p45 death domain
34	c2ib1A	Alignment	not modelled	35.1	12	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
35	d1khda1	Alignment	not modelled	35.0	9	PDB header: apoptosis Chain: A: PDB Molecule: tumor necrosis factor receptor-1; PDBTitle: solution structure of the tumor necrosis factor receptor-12 death domain
36	c1ichA	Alignment	not modelled	26.6	13	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
37	d1icha	Alignment	not modelled	26.6	13	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
38	d1fada	Alignment	not modelled	25.3	15	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
39	c4n2xF	Alignment	not modelled	25.0	12	PDB header: hydrolase Chain: F: PDB Molecule: dl-2-haloacid dehalogenase; PDBTitle: crystal structure of dl-2-haloacid dehalogenase
40	c1wxpA	Alignment	not modelled	24.4	13	PDB header: transport protein Chain: A: PDB Molecule: tho complex subunit 1; PDBTitle: solution structure of the death domain of nuclear matrix2 protein p84
41	c2yqfA	Alignment	not modelled	23.3	8	PDB header: protein binding Chain: A: PDB Molecule: ankyrin-1; PDBTitle: solution structure of the death domain of ankyrin-1
42	c6mtgB	Alignment	not modelled	23.2	9	PDB header: transferase Chain: B: PDB Molecule: homoserine o-succinyltransferase; PDBTitle: a single reactive noncanonical amino acid is able to dramatically2 stabilize protein structure
43	d1ttya	Alignment	not modelled	23.2	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
44	d1ku3a	Alignment	not modelled	22.9	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
45	c3oq9C	Alignment	not modelled	22.0	7	PDB header: apoptosis Chain: C: PDB Molecule: tumor necrosis factor receptor superfamily member 6; PDBTitle: structure of the fas/fadd death domain assembly
46	c2of5A	Alignment	not modelled	20.2	16	PDB header: apoptosis Chain: A: PDB Molecule: death domain-containing protein cradd; PDBTitle: oligomeric death domain complex
47	c3k2zA	Alignment	not modelled	18.1	9	PDB header: hydrolase Chain: A: PDB Molecule: lexa repressor; PDBTitle: crystal structure of a lexa protein from thermotoga maritima
48	d1p4wa	Alignment	not modelled	18.0	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: C-terminal effector domain of the bipartite response regulators Family: GerE-like (LuxR/UhpA family of transcriptional regulators)
49	c2k8sA	Alignment	not modelled	17.6	20	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: solution nmr structure of dimeric thioredoxin-like protein2 ne0084 from nitrosomonas europea: northeast structural3 genomics target net6
50	d1ku7a	Alignment	not modelled	17.5	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
51	c3t72o	Alignment	not modelled	17.3	17	PDB header: transcription/dna Chain: O: PDB Molecule: pho box dna (strand 1); PDBTitle: phob(e)-sigma70(4)-(rnab-beta-flap-tip-helix)-dna transcription2 activation sub-complex
52	c3gmfA	Alignment	not modelled	16.4	13	PDB header: oxidoreductase Chain: A: PDB Molecule: protein-disulfide isomerase; PDBTitle: crystal structure of protein-disulfide isomerase from novosphingobium2 aromaticivorans
53	c3t5vC	Alignment	not modelled	15.9	19	PDB header: transcription Chain: C: PDB Molecule: 26s proteasome complex subunit sem1; PDBTitle: sac3:thp1:sem1 complex

54	c3dvwA	Alignment	not modelled	15.4	8	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsba; PDBTitle: crystal structure of reduced dsba1 from neisseria2 meningitidis
55	c2of5K	Alignment	not modelled	15.1	15	PDB header: apoptosis Chain: K: PDB Molecule: leucine-rich repeat and death domain-containing protein; PDBTitle: oligomeric death domain complex
56	c2k9IA	Alignment	not modelled	15.0	20	PDB header: transcription Chain: A: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: structure of the core binding domain of sigma54
57	d1brwa1	Alignment	not modelled	14.7	14	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
58	c3f4tA	Alignment	not modelled	14.2	19	PDB header: oxidoreductase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of wolbachia pipientis alpha-dsba1 c97a/c146a
59	c5lc5E	Alignment	not modelled	13.9	14	PDB header: oxidoreductase Chain: E: PDB Molecule: nadh dehydrogenase [ubiquinone] flavoprotein 2, PDBTitle: structure of mammalian respiratory complex i, class2
60	c3bjxB	Alignment	not modelled	13.9	11	PDB header: hydrolase Chain: B: PDB Molecule: halocarboxylic acid dehalogenase dehi; PDBTitle: structure of a group i haloacid dehalogenase from2 pseudomonas putida strain pp3
61	c3l9vE	Alignment	not modelled	13.8	11	PDB header: oxidoreductase Chain: E: PDB Molecule: putative thiol-disulfide isomerase or thioredoxin; PDBTitle: crystal structure of salmonella enterica serovar typhimurium srga
62	d1o17a1	Alignment	not modelled	13.8	14	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
63	d1uoua1	Alignment	not modelled	13.6	7	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
64	c3bcia	Alignment	not modelled	13.5	25	PDB header: oxidoreductase Chain: A: PDB Molecule: disulfide bond protein a; PDBTitle: crystal structure of staphylococcus aureus dsba
65	d1v8ga1	Alignment	not modelled	13.5	7	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
66	c1t3bA	Alignment	not modelled	13.3	33	PDB header: isomerase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbc; PDBTitle: x-ray structure of dsbc from haemophilus influenzae
67	d1smyf2	Alignment	not modelled	13.0	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
68	d1t3ba1	Alignment	not modelled	12.6	33	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbC/DsbG C-terminal domain-like
69	d2gf5a1	Alignment	not modelled	12.5	14	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
70	c2k9mA	Alignment	not modelled	12.0	20	PDB header: transcription Chain: A: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: structure of the core binding domain of sigma54
71	c4npbA	Alignment	not modelled	11.6	33	PDB header: isomerase Chain: A: PDB Molecule: protein disulfide isomerase ii; PDBTitle: the crystal structure of thiol:disulfide interchange protein dsbc from2 yersinia pestis co92
72	c3c7mB	Alignment	not modelled	11.1	13	PDB header: oxidoreductase Chain: B: PDB Molecule: thiol:disulfide interchange protein dsba-like; PDBTitle: crystal structure of reduced dsbl
73	c1v57A	Alignment	not modelled	10.7	17	PDB header: isomerase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbg; PDBTitle: crystal structure of the disulfide bond isomerase dsbg
74	c4igcX	Alignment	not modelled	10.6	23	PDB header: transcription, transferase Chain: X: PDB Molecule: rna polymerase sigma factor rpod; PDBTitle: x-ray crystal structure of escherichia coli sigma70 holoenzyme
75	c1jzdA	Alignment	not modelled	10.3	33	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbc; PDBTitle: dsbc-dsbdalpha complex
76	d1x4pa1	Alignment	not modelled	10.0	13	Fold: Surp module (SWAP domain) Superfamily: Surp module (SWAP domain) Family: Surp module (SWAP domain)
77	c3hd5A	Alignment	not modelled	9.9	11	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsba; PDBTitle: crystal structure of a thiol:disulfide interchange protein2 dsba from bordetella parapertussis
78	c4k2dA	Alignment	not modelled	9.9	8	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein; PDBTitle: crystal structure of burkholderia pseudomallei dsba
						PDB header: oxidoreductase

79	c4nxiB	Alignment	not modelled	9.8	18	Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: rv2466c mediates the activation of tp053 to kill replicating and non-2 replicating mycobacterium tuberculosis
80	c1a6bB	Alignment	not modelled	9.7	33	PDB header: viral protein/dna Chain: B: PDB Molecule: zinc finger protein ncp10; PDBTitle: nmr structure of the complex between the zinc finger2 protein ncp10 of moloney murine leukemia virus and a3 sequence of the psi-packaging domain of hiv-1, 204 structures
81	c4ml1D	Alignment	not modelled	9.7	8	PDB header: isomerase Chain: D: PDB Molecule: dsbp; PDBTitle: disulfide isomerase (dsbp) from multidrug resistance inca/c2 transferable plasmid in oxidized state (p212121 space group)
82	c4xvwK	Alignment	not modelled	9.6	17	PDB header: isomerase Chain: K: PDB Molecule: dsba-like protein; PDBTitle: crystal structure of proteus mirabilis scsc in a compact conformation
83	d2tpta1	Alignment	not modelled	9.5	7	Fold: Methionine synthase domain-like Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain Family: Nucleoside phosphorylase/phosphoribosyltransferase N-terminal domain
84	c1x4pA	Alignment	not modelled	9.5	13	PDB header: rna binding protein Chain: A: PDB Molecule: putative splicing factor, arginine/serine-rich PDBTitle: solution structure of surp domain in sfrs14 protei
85	c3wodF	Alignment	not modelled	9.1	22	PDB header: transferase/transcription Chain: F: PDB Molecule: rna polymerase sigma factor; PDBTitle: rna polymerase-gp39 complex
86	c4n30A	Alignment	not modelled	9.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: protein disulfide isomerase; PDBTitle: crystal structure of pseudomonas aeruginosa dsba2
87	c3iydF	Alignment	not modelled	9.0	20	PDB header: transcription/dna Chain: F: PDB Molecule: rna polymerase sigma factor rpod; PDBTitle: three-dimensional em structure of an intact activator-dependent2 transcription initiation complex
88	c5tw1F	Alignment	not modelled	8.9	22	PDB header: transcription activator/transferase/dna Chain: F: PDB Molecule: rna polymerase sigma factor siga; PDBTitle: crystal structure of a mycobacterium smegmatis transcription2 initiation complex with rbpa
89	c2ev2B	Alignment	not modelled	8.8	22	PDB header: lyase Chain: B: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: structure of rv1264n, the regulatory domain of the mycobacterial2 adenyl cyclase rv1264, at ph 8.5
90	c1vquB	Alignment	not modelled	8.8	17	PDB header: transferase Chain: B: PDB Molecule: anthranilate phosphoribosyltransferase 2; PDBTitle: crystal structure of anthranilate phosphoribosyltransferase 22 (17130499) from nostoc sp. at 1.85 a resolution
91	c6c05F	Alignment	not modelled	8.8	20	PDB header: transcription Chain: F: PDB Molecule: rna polymerase sigma factor siga; PDBTitle: mycobacterium tuberculosis rnap holo/rbpa in relaxed state
92	c5hfiA	Alignment	not modelled	8.7	9	PDB header: oxidoreductase Chain: A: PDB Molecule: uncharacterized protein, cytosolic disulfide reductase PDBTitle: cytosolic disulfide reductase dsbm from pseudomonas aeruginosa with2 gsh
93	d1beda	Alignment	not modelled	8.7	12	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbA-like
94	c3h93A	Alignment	not modelled	8.7	8	PDB header: transcription regulator Chain: A: PDB Molecule: thiol:disulfide interchange protein dsba; PDBTitle: crystal structure of pseudomonas aeruginosa dsba
95	c3gv1A	Alignment	not modelled	8.5	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: disulfide interchange protein; PDBTitle: crystal structure of disulfide interchange protein from neisseria2 gonorrhoeae
96	c4k90A	Alignment	not modelled	8.5	63	PDB header: hydrolase Chain: A: PDB Molecule: extracellular metalloproteinase mep; PDBTitle: extracellular metalloproteinase from aspergillus
97	c3msuA	Alignment	not modelled	8.4	13	PDB header: transferase Chain: A: PDB Molecule: citrate synthase; PDBTitle: crystal structure of citrate synthase from francisella tularensis
98	d1eeja1	Alignment	not modelled	8.4	33	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbC/DsbG C-terminal domain-like
99	c3o0rC	Alignment	not modelled	8.3	17	PDB header: immune system/oxidoreductase Chain: C: PDB Molecule: nitric oxide reductase subunit c; PDBTitle: crystal structure of nitric oxide reductase from pseudomonas2 aeruginosa in complex with antibody fragment