
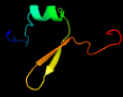



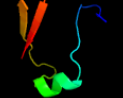

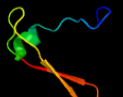

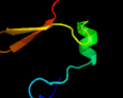

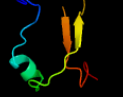
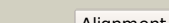
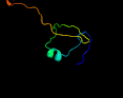
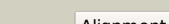
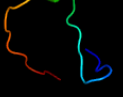

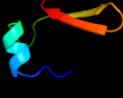



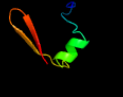


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD0599c_(-)_697567_697803
Date	Fri Jul 26 01:50:15 BST 2019
Unique Job ID	91259dbdeb09fd23

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2w1tB_	 Alignment		98.7	25	PDB header: transcription Chain: B: PDB Molecule: stage v sporulation protein t; PDBTitle: crystal structure of b. subtilis spovt
2	c2l66B_	 Alignment		98.3	13	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, abrb family; PDBTitle: the dna-recognition fold of sso7c4 suggests a new member of spovt-abrb2 superfamily from archaea.
3	dlyfba1	 Alignment		98.2	33	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: AbrB N-terminal domain-like
4	d2fy9a1	 Alignment		98.2	36	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: AbrB N-terminal domain-like
5	c2mrnB_	 Alignment		98.0	24	PDB header: dna binding protein Chain: B: PDB Molecule: antitoxin maze; PDBTitle: structure of truncated ecmaze
6	c2ro5B_	 Alignment		97.9	28	PDB header: transcription Chain: B: PDB Molecule: stage v sporulation protein t; PDBTitle: rdc-refined solution structure of the n-terminal dna recognition2 domain of the bacillus subtilis transition-state regulator spovt
7	d1ub4c_	 Alignment		97.6	23	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/PemI addiction antidote
8	c2glwA_	 Alignment		97.6	36	PDB header: transcription Chain: A: PDB Molecule: 92aa long hypothetical protein; PDBTitle: the solution structure of phs018 from pyrococcus horikoshii
9	d1mvfd_	 Alignment		97.2	27	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/PemI addiction antidote
10	c1n0ff_	 Alignment		94.5	23	PDB header: biosynthetic protein Chain: F: PDB Molecule: protein mraz; PDBTitle: crystal structure of a cell division and cell wall2 biosynthesis protein upf0040 from mycoplasma pneumoniae:3 indication of a novel fold with a possible new conserved4 sequence motif
11	d1n0ea_	 Alignment		93.8	23	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Hypothetical protein MraZ

12	c3o27B_	Alignment		91.8	29	PDB header: dna binding protein Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: the crystal structure of c68 from the hybrid virus-plasmid pssvx
13	d2vbua1	Alignment		89.6	36	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Riboflavin kinase-like Family: CTP-dependent riboflavin kinase-like
14	c3zvkg_	Alignment		84.5	26	PDB header: antitoxin/toxin/dna Chain: G: PDB Molecule: antitoxin of toxin-antitoxin system vapb; PDBTitle: crystal structure of vapbc2 from rickettsia felis bound to 2 a dna fragment from their promoter
15	c5l6lD_	Alignment		78.5	23	PDB header: hydrolase Chain: D: PDB Molecule: vapb family protein; PDBTitle: structure of caulobacter crescentus vapbc1 bound to operator dna
16	c2c45F_	Alignment		78.0	23	PDB header: lyase Chain: F: PDB Molecule: aspartate 1-decarboxylase; PDBTitle: native precursor of pyruvoyl dependent aspartate decarboxylase
17	d2d9ra1	Alignment		76.3	29	Fold: Double-split beta-barrel Superfamily: AF2212/PG0164-like Family: PG0164-like
18	c5udfB_	Alignment		76.0	19	PDB header: protein transport Chain: B: PDB Molecule: lipoprotein-releasing system transmembrane protein lole; PDBTitle: structure of the n-terminal domain of lipoprotein-releasing system2 transmembrane protein lole from acinetobacter baumannii
19	c1pt1B_	Alignment		73.8	18	PDB header: lyase Chain: B: PDB Molecule: aspartate 1-decarboxylase; PDBTitle: unprocessed pyruvoyl dependent aspartate decarboxylase with histidine2 11 mutated to alanine
20	d1cz5a1	Alignment		70.7	28	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Cdc48 N-terminal domain-like
21	c1zc1A_	Alignment	not modelled	70.5	44	PDB header: protein turnover Chain: A: PDB Molecule: ubiquitin fusion degradation protein 1; PDBTitle: ufd1 exhibits the aaa-atpase fold with two distinct2 ubiquitin interaction sites
22	c1cz5A_	Alignment	not modelled	70.5	28	PDB header: hydrolase Chain: A: PDB Molecule: vcp-like atpase; PDBTitle: nmr structure of vat-n: the n-terminal domain of vat (vcp-2 like atpase of thermoplasma)
23	c2pjhB_	Alignment	not modelled	70.3	18	PDB header: transport protein Chain: B: PDB Molecule: transitional endoplasmic reticulum atpase; PDBTitle: strctural model of the p97 n domain- npl4 ubd complex
24	d1ylea1	Alignment	not modelled	68.9	19	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: AstA-like
25	d1ppya_	Alignment	not modelled	67.5	15	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Pyruvoyl dependent aspartate decarboxylase, ADC
26	c6nkID_	Alignment	not modelled	64.3	31	PDB header: antitoxin Chain: D: PDB Molecule: antitoxin vapb1; PDBTitle: 2.2 a resolution structure of vapbc-1 from nontypeable haemophilus2 influenzae
27	c2yuja_	Alignment	not modelled	56.1	19	PDB header: protein binding Chain: A: PDB Molecule: ubiquitin fusion degradation 1-like; PDBTitle: solution structure of human ubiquitin fusion degradation2 protein 1 homolog ufd1
28	c5l6mA_	Alignment	not modelled	51.8	18	PDB header: hydrolase Chain: A: PDB Molecule: vapb family protein; PDBTitle: structure of caulobacter crescentus vapbc1 (vapb1deltac:vapc1 form)
						PDB header: lyase

29	c1uheA	Alignment	not modelled	51.3	26	Chain: A; PDB Molecule: aspartate 1-decarboxylase alpha chain; PDBTitle: crystal structure of aspartate decarboxylase, isoasparagine complex
30	c3ougA	Alignment	not modelled	50.4	15	PDB header: lyase Chain: A; PDB Molecule: aspartate 1-decarboxylase; PDBTitle: crystal structure of cleaved l-aspartate-alpha-decarboxylase from2 francisella tularensis
31	d2jioa1	Alignment	not modelled	47.8	13	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
32	c3plxB	Alignment	not modelled	45.9	19	PDB header: lyase Chain: B; PDB Molecule: aspartate 1-decarboxylase; PDBTitle: the crystal structure of aspartate alpha-decarboxylase from2 campylobacter jejuni subsp. jejuni nctc 11168
33	c1vc3B	Alignment	not modelled	45.7	25	PDB header: lyase Chain: B; PDB Molecule: l-aspartate-alpha-decarboxylase heavy chain; PDBTitle: crystal structure of l-aspartate-alpha-decarboxylase
34	c2oqkA	Alignment	not modelled	44.8	19	PDB header: translation Chain: A; PDB Molecule: putative translation initiation factor eif-1a; PDBTitle: crystal structure of putative cryptosporidium parvum translation2 initiation factor eif-1a
35	d1g8ka1	Alignment	not modelled	44.6	16	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
36	c2ki0A	Alignment	not modelled	44.2	30	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: putative thiamin biosynthesis this; PDBTitle: solution nmr structure of rhodopseudomonas palustris rpa3574,2 northeast structural genomics consortium (nesg) target rpr325
37	c5naaB	Alignment	not modelled	43.9	16	PDB header: protein transport Chain: B; PDB Molecule: lipoprotein-releasing system transmembrane protein lolc; PDBTitle: lipoprotein-releasing system transmembrane protein lolc
38	c1h9mB	Alignment	not modelled	41.1	28	PDB header: binding protein Chain: B; PDB Molecule: molybdenum-binding-protein; PDBTitle: two crystal structures of the cytoplasmic molybdate-binding protein2 modg suggest a novel cooperative binding mechanism and provide3 insights into ligand-binding specificity. peg-grown form with4 molybdate bound
39	c4trtB	Alignment	not modelled	41.0	25	PDB header: transferase Chain: B; PDB Molecule: dna polymerase iii subunit beta; PDBTitle: deinococcus radiodurans dna polymerase iii subunit beta
40	c2k4vA	Alignment	not modelled	40.6	33	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: uncharacterized protein pa1076; PDBTitle: solution structure of uncharacterized protein pa1076 from pseudomonas2 aeruginosa. northeast structural genomics consortium (nesg) target3 pat3, ontario center for structural proteomics target pa1076 .
41	c1zeqX	Alignment	not modelled	40.4	20	PDB header: metal binding protein Chain: X; PDB Molecule: cation efflux system protein cusf; PDBTitle: 1.5 a structure of apo-cusf residues 6-88 from escherichia2 coli
42	d1vpka1	Alignment	not modelled	39.9	22	Fold: DNA clamp Superfamily: DNA clamp Family: DNA polymerase III, beta subunit
43	d2iv2x1	Alignment	not modelled	37.9	10	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
44	c4zsiA	Alignment	not modelled	37.2	18	PDB header: transcription Chain: A; PDB Molecule: hth-type transcriptional repressor dasr; PDBTitle: crystal structure of the effector-binding domain of dasr (dasr-ebd) in2 complex with glucosamine-6-phosphate
45	c3tndF	Alignment	not modelled	36.6	32	PDB header: translation, toxin Chain: F; PDB Molecule: antitoxin vapb; PDBTitle: crystal structure of shigella flexneri vapbc toxin-antitoxin complex
46	c3wwwA	Alignment	not modelled	35.6	17	PDB header: unknown function Chain: A; PDB Molecule: stomatin operon partner protein; PDBTitle: c-terminal domain of stomatin operon partner protein 1510-c from2 pyrococcus horikoshii
47	d1ogya1	Alignment	not modelled	34.9	16	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
48	d1h0ha1	Alignment	not modelled	34.8	16	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
49	c4bpp0	Alignment	not modelled	34.7	8	PDB header: ribosome Chain: 0; PDB Molecule: translation initiation factor eif-1a family protein; PDBTitle: the crystal structure of the eukaryotic 40s ribosomal subunit in2 complex with eif1 and eif1a - complex 4
50	d2eifa2	Alignment	not modelled	34.0	27	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
51	d1kqfa1	Alignment	not modelled	32.7	18	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
52	d1zq1a1	Alignment	not modelled	31.6	15	Fold: Sm-like fold Superfamily: GatD N-terminal domain-like Family: GatD N-terminal domain-like
53	d1h9ma2	Alignment	not modelled	31.3	28	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain

54	c1uebB_	Alignment	not modelled	31.0	15	PDB header: rna binding protein Chain: B: PDB Molecule: elongation factor p; PDBTitle: crystal structure of translation elongation factor p from2 thermus thermophilus hb8
55	c3m7aA_	Alignment	not modelled	30.8	33	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of saro_0823 (yp_496102.1) a protein of unknown2 function from novosphingobium aromaticivorans dsm 12444 at 1.22 a3 resolution
56	d2fa1a1	Alignment	not modelled	30.5	18	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
57	d1h9ma1	Alignment	not modelled	30.4	19	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
58	d2ra5a1	Alignment	not modelled	30.4	18	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
59	c2ra5A_	Alignment	not modelled	30.4	18	PDB header: transcription Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of the putative transcriptional regulator2 from streptomyces coelicolor
60	c3pjyB_	Alignment	not modelled	30.3	24	PDB header: transcription regulator Chain: B: PDB Molecule: hypothetical signal peptide protein; PDBTitle: crystal structure of a putative transcription regulator (r01717) from2 sinorhizobium meliloti 1021 at 1.55 a resolution
61	c4cjdA_	Alignment	not modelled	29.4	18	PDB header: cell adhesion Chain: A: PDB Molecule: nada; PDBTitle: crystal structure of neisseria meningitidis trimeric2 autotransporter and vaccine antigen nada
62	c5t5iL_	Alignment	not modelled	29.4	16	PDB header: oxidoreductase Chain: L: PDB Molecule: tungsten formylmethanofuran dehydrogenase subunit fwdd; PDBTitle: tungsten-containing formylmethanofuran dehydrogenase from2 methanothermobacter wolfeii, orthorhombic form at 1.9 a
63	d1fr3a_	Alignment	not modelled	29.3	23	Fold: OB-fold Superfamily: MOP-like Family: Molybdate/tungstate binding protein MOP
64	d1vlfm1	Alignment	not modelled	28.4	19	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
65	d3d31a1	Alignment	not modelled	28.4	15	Fold: OB-fold Superfamily: MOP-like Family: ABC-transporter additional domain
66	c6c00A_	Alignment	not modelled	28.3	14	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-1; PDBTitle: solution structure of translation initiation factor 1 from clostridium2 difficile
67	d1eu1a1	Alignment	not modelled	28.3	10	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
68	c2ki8A_	Alignment	not modelled	28.2	23	PDB header: oxidoreductase Chain: A: PDB Molecule: tungsten formylmethanofuran dehydrogenase, PDBTitle: solution nmr structure of tungsten formylmethanofuran2 dehydrogenase subunit d from archaeoglobus fulgidus,3 northeast structural genomics consortium target att7
69	c1qw1A_	Alignment	not modelled	27.1	20	PDB header: gene regulation Chain: A: PDB Molecule: diphtheria toxin repressor; PDBTitle: solution structure of the c-terminal domain of dtxr2 residues 110-226
70	d2exda1	Alignment	not modelled	26.9	23	Fold: OB-fold Superfamily: NfeD domain-like Family: NfeD domain-like
71	c4qj5A_	Alignment	not modelled	26.4	14	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-1; PDBTitle: crystal structure of translation initiation factor if-1 from2 streptococcus pneumoniae tigr4
72	c5lxyH_	Alignment	not modelled	26.3	38	PDB header: rna binding protein Chain: H: PDB Molecule: zinc finger cchc domain-containing protein 8; PDBTitle: structure of the minimal rbm7 - zcchc8 complex
73	c3ll7A_	Alignment	not modelled	26.0	18	PDB header: transferase Chain: A: PDB Molecule: putative methyltransferase; PDBTitle: crystal structure of putative methyltransferase pg_1098 from2 porphyromonas gingivalis w83
74	d1hr0w_	Alignment	not modelled	25.8	17	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
75	c2k5hA_	Alignment	not modelled	25.7	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein; PDBTitle: solution nmr structure of protein encoded by mth693 from2 methanobacterium thermoautotrophicum: northeast structural3 genomics consortium target tt824a
76	d1tmoa1	Alignment	not modelled	25.6	16	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
77	c5ccbA_	Alignment	not modelled	25.6	30	PDB header: transferase/rna Chain: A: PDB Molecule: trna (adenine(58)-n(1))-methyltransferase catalytic subunit PDBTitle: crystal structure of human m1a58 methyltransferase in a complex with2 trna3lys and sah
78	d3cnva1	Alignment	not modelled	25.3	27	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain

79	d1qw1a1	Alignment	not modelled	25.3	20	Fold: SH3-like barrel Superfamily: C-terminal domain of transcriptional repressors Family: FeoA-like
80	c1ybyB_	Alignment	not modelled	25.0	9	PDB header: translation Chain: B: PDB Molecule: translation elongation factor p; PDBTitle: conserved hypothetical protein cth-95 from clostridium thermocellum
81	d1jt8a_	Alignment	not modelled	24.9	16	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
82	c3p16A_	Alignment	not modelled	24.9	19	PDB header: transferase Chain: A: PDB Molecule: dna polymerase iii subunit beta; PDBTitle: crystal structure of dna polymerase iii sliding clamp
83	c3i4oA_	Alignment	not modelled	24.7	10	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-1; PDBTitle: crystal structure of translation initiation factor 1 from2 mycobacterium tuberculosis
84	c3nngA_	Alignment	not modelled	24.5	29	PDB header: viral protein Chain: A: PDB Molecule: n-terminal domain of moloney murine leukemia virus PDBTitle: crystal structure of the n-terminal domain of moloney murine leukemia2 virus integrase, northeast structural genomics consortium target or3
85	d2pkha1	Alignment	not modelled	24.3	18	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
86	d2p19a1	Alignment	not modelled	23.7	24	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
87	d3bwga2	Alignment	not modelled	23.3	9	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
88	c3treA_	Alignment	not modelled	23.3	5	PDB header: translation Chain: A: PDB Molecule: elongation factor p; PDBTitle: structure of a translation elongation factor p (efp) from coxiella2 burnetii
89	d1h9ra1	Alignment	not modelled	23.2	21	Fold: OB-fold Superfamily: MOP-like Family: BiMOP, duplicated molybdate-binding domain
90	d1y5ia1	Alignment	not modelled	22.9	13	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
91	d1d7qa_	Alignment	not modelled	22.8	17	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
92	d2cu3a1	Alignment	not modelled	22.8	17	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: ThiS
93	d1guta_	Alignment	not modelled	22.0	14	Fold: OB-fold Superfamily: MOP-like Family: Molybdate/tungstate binding protein MOP
94	d1dgsa2	Alignment	not modelled	21.9	25	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: DNA ligase/mRNA capping enzyme postcatalytic domain
95	c1bkbA_	Alignment	not modelled	21.8	31	PDB header: translation Chain: A: PDB Molecule: translation initiation factor 5a; PDBTitle: initiation factor 5a from archebacterium pyrobaculum2 aerophilum
96	d2ogga1	Alignment	not modelled	21.5	12	Fold: Chorismate lyase-like Superfamily: Chorismate lyase-like Family: UTRA domain
97	d1dmra1	Alignment	not modelled	21.4	14	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
98	d1zud21	Alignment	not modelled	21.3	17	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: ThiS
99	d1qvpa_	Alignment	not modelled	21.1	30	Fold: SH3-like barrel Superfamily: C-terminal domain of transcriptional repressors Family: FeoA-like
100	d1tygb_	Alignment	not modelled	20.6	19	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/ThiS Family: ThiS