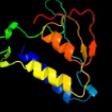
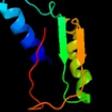
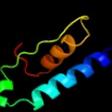
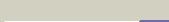
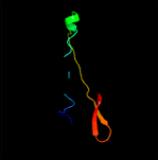
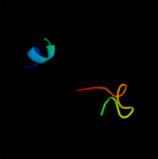
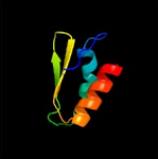
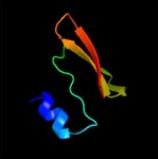
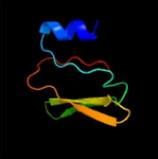
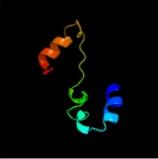


Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD1446c_opcA_1624460_1625371
 Date Fri Aug 2 13:30:02 BST 2019
 Unique Job ID 42a27cfbecc8b92

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1kl7a_	 Alignment		77.0	16	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
2	d1miau4	 Alignment		24.5	27	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB
3	c6ojmB_	 Alignment		22.3	15	PDB header: lyase Chain: B; PDB Molecule: 1,4-dihydroxy-2-naphthoyl-coa synthase; PDBTitle: crystal structure of 1,4-dihydroxy-2-naphthoyl-coa synthase2 elizabethkingia anophelis nuhp1
4	c3k12F_	 Alignment		21.9	17	PDB header: structural genomics, unknown function Chain: F; PDB Molecule: uncharacterized protein a6v7t0; PDBTitle: crystal structure of an uncharacterized protein a6v7t0 from2 pseudomonas aeruginosa
5	c1r0lD_	 Alignment		19.8	14	PDB header: oxidoreductase Chain: D; PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose 5-phosphate reductoisomerase from zymomonas mobilis2 in complex with nadph
6	d1rm6a2	 Alignment		19.0	22	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
7	d1dgja4	 Alignment		17.3	12	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
8	d1ohua_	 Alignment		16.7	8	Fold: Toxins' membrane translocation domains Superfamily: Bcl-2 inhibitors of programmed cell death Family: Bcl-2 inhibitors of programmed cell death
9	d1vb3a1	 Alignment		16.0	30	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
10	c4f4fB_	 Alignment		14.7	19	PDB header: lyase Chain: B; PDB Molecule: threonine synthase; PDBTitle: x-ray crystal structure of plp bound threonine synthase from brucella2 melitensis
11	d1ffgb_	 Alignment		14.2	26	Fold: Ferredoxin-like Superfamily: CheY-binding domain of CheA Family: CheY-binding domain of CheA

12	d1iyb4	Alignment		13.5	27	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB
13	d1nyed	Alignment		13.5	11	Fold: OsmC-like Superfamily: OsmC-like Family: Ohr/OsmC resistance proteins
14	c5bvlA	Alignment		13.4	37	PDB header: de novo protein Chain: A: PDB Molecule: designed tim barrel stim11; PDBTitle: crystal structure of a de novo designed tim-barrel
15	c3ossD	Alignment		12.6	13	PDB header: protein transport Chain: D: PDB Molecule: type 2 secretion system, secretin gspd; PDBTitle: the crystal structure of enterotoxigenic escherichia coli gspc-gspd2 complex from the type ii secretion system
16	d1efpb	Alignment		12.4	21	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
17	c3hrdE	Alignment		11.9	22	PDB header: oxidoreductase Chain: E: PDB Molecule: nicotinate dehydrogenase large molybdopterin PDBTitle: crystal structure of nicotinate dehydrogenase
18	c3v7nA	Alignment		11.7	15	PDB header: lyase Chain: A: PDB Molecule: threonine synthase; PDBTitle: crystal structure of threonine synthase (thrc) from from burkholderia2 thailandensis
19	c1o94D	Alignment		11.7	17	PDB header: electron transport Chain: D: PDB Molecule: electron transfer flavoprotein alpha-subunit; PDBTitle: ternary complex between trimethylamine dehydrogenase and2 electron transferring flavoprotein
20	c5vldC	Alignment		11.0	27	PDB header: oxidoreductase Chain: C: PDB Molecule: histidinol dehydrogenase, chloroplastic; PDBTitle: crystal structure of medicago truncatula l-histidinol dehydrogenase in2 complex with l-histidine and nad+
21	c6jo52	Alignment	not modelled	10.3	38	PDB header: photosynthesis Chain: 2: PDB Molecule: chlorophyll a-b binding protein, chloroplastic; PDBTitle: structure of the green algal photosystem i supercomplex with light-2 harvesting complex i
22	c6fahB	Alignment	not modelled	10.2	12	PDB header: flavoprotein Chain: B: PDB Molecule: caffeloy-coa reductase-etf complex subunit card; PDBTitle: molecular basis of the flavin-based electron-bifurcating caffeloy-coa2 reductase reaction
23	d1o94c	Alignment	not modelled	10.0	20	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
24	c6ijj7	Alignment	not modelled	9.9	24	PDB header: membrane protein Chain: 7: PDB Molecule: lhca7; PDBTitle: photosystem i of chlamydomonas reinhardtii
25	d1yt3a1	Alignment	not modelled	9.8	18	Fold: SAM domain-like Superfamily: HRDC-like Family: RNase D C-terminal domains
26	c2ma1A	Alignment	not modelled	9.4	18	PDB header: dna binding protein Chain: A: PDB Molecule: dna helicase recq; PDBTitle: solution structure of hrdc1 domain of recq helicase from deinococcus2 radiodurans
27	c2yonA	Alignment	not modelled	9.2	22	PDB header: signaling protein Chain: A: PDB Molecule: sensory box protein; PDBTitle: solution nmr structure of the c-terminal extension of two bacterial2 light, oxygen, voltage (lov) photoreceptor proteins from3 pseudomonas putida
28	d3clsc1	Alignment	not modelled	9.1	15	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like

						Family:ETFP subunits
29	d1wuda1	Alignment	not modelled	9.0	11	Fold: SAM domain-like Superfamily: HRDC-like Family: HRDC domain from helicases
30	d2hbka1	Alignment	not modelled	8.8	24	Fold: SAM domain-like Superfamily: HRDC-like Family: EXOSC10 HRDC domain-like
31	c6igz4	Alignment	not modelled	8.6	30	PDB header: plant protein Chain: 4: PDB Molecule: lhca-b; PDBTitle: structure of psi-lhci
32	d7reqb2	Alignment	not modelled	8.5	11	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
33	c6igz2	Alignment	not modelled	8.3	26	PDB header: plant protein Chain: 2: PDB Molecule: lhca-c; PDBTitle: structure of psi-lhci
34	d1n62b2	Alignment	not modelled	8.1	16	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
35	d1t3qb2	Alignment	not modelled	7.9	24	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
36	d1vm6a2	Alignment	not modelled	7.9	21	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: Dihydrodipicolinate reductase-like
37	c2z8nB	Alignment	not modelled	7.8	21	PDB header: lyase Chain: B: PDB Molecule: 27.5 kda virulence protein; PDBTitle: structural basis for the catalytic mechanism of phosphothreonine lyase
38	c5f2yF	Alignment	not modelled	7.8	18	PDB header: de novo protein Chain: F: PDB Molecule: ccc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
39	c5f2yB	Alignment	not modelled	7.7	18	PDB header: de novo protein Chain: B: PDB Molecule: ccc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
40	c6nt5B	Alignment	not modelled	7.6	29	PDB header: immune system Chain: B: PDB Molecule: stimulator of interferon protein; PDBTitle: cryo-em structure of full-length human sting in the apo state
41	d1vlba4	Alignment	not modelled	7.6	16	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
42	c1t3qB	Alignment	not modelled	7.6	24	PDB header: oxidoreductase Chain: B: PDB Molecule: quinoline 2-oxidoreductase large subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86
43	c1vm6B	Alignment	not modelled	7.5	20	PDB header: oxidoreductase Chain: B: PDB Molecule: dihydrodipicolinate reductase; PDBTitle: crystal structure of dihydrodipicolinate reductase (tm1520) from2 thermotoga maritima at 2.27 a resolution
44	c4lvpP	Alignment	not modelled	7.4	31	PDB header: hydrolase/inhibitor/immune system Chain: P: PDB Molecule: subtilisin-like serine protease; PDBTitle: crystal structure of psub1-prodomain-nimp.m7 fab complex
45	d1e8ya2	Alignment	not modelled	7.3	10	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
46	c5ezeB	Alignment	not modelled	7.3	21	PDB header: de novo protein Chain: B: PDB Molecule: ccc-hept-bmcys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
47	d1u9pa1	Alignment	not modelled	7.2	32	Fold: Ribbon-helix-helix Superfamily: Ribbon-helix-helix Family: Arc/Mnt-like phage repressors
48	c4v1ag	Alignment	not modelled	7.2	9	PDB header: ribosome Chain: G: PDB Molecule: PDBTitle: structure of the large subunit of the mammalian mitoribosome, part 22 of 2
49	d1qbjc	Alignment	not modelled	7.1	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
50	c2jsxA	Alignment	not modelled	7.0	18	PDB header: chaperone Chain: A: PDB Molecule: protein napd; PDBTitle: solution structure of the e. coli tat proofreading2 chaperone protein napd
51	c3kjlL	Alignment	not modelled	7.0	19	PDB header: unknown function Chain: L: PDB Molecule: nmb1025 protein; PDBTitle: crystal structure of nmb1025, a member of yjgf protein family, from2 neisseria meningitidis (hexagonal crystal form)
52	c3clrD	Alignment	not modelled	6.9	17	PDB header: electron transport Chain: D: PDB Molecule: electron transfer flavoprotein subunit alpha; PDBTitle: crystal structure of the r236a etf mutant from m. methylotrophus
53	d1qu9a	Alignment	not modelled	6.9	13	Fold: Bacillus chorismate mutase-like Superfamily: Yjgf-like Family: Yjgf/L-PSP
54	c6igz9	Alignment	not modelled	6.8	19	PDB header: plant protein Chain: 9: PDB Molecule: lhca-i; PDBTitle: structure of psi-lhci

55	c5f2yE	Alignment	not modelled	6.7	21	PDB header: de novo protein Chain: E; PDB Molecule: cc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
56	c5ezeC	Alignment	not modelled	6.7	21	PDB header: de novo protein Chain: C; PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
57	c5ezeE	Alignment	not modelled	6.7	21	PDB header: de novo protein Chain: E; PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
58	d1vr8a1	Alignment	not modelled	6.7	18	Fold: TM1622-like Superfamily: TM1622-like Family: TM1622-like
59	c3lf9A	Alignment	not modelled	6.6	21	PDB header: immune system Chain: A; PDB Molecule: 4e10_d0_1is1a_001_c (t161); PDBTitle: crystal structure of hiv epitope-scaffold 4e10_d0_1is1a_001_c
60	c5f2yG	Alignment	not modelled	6.5	21	PDB header: de novo protein Chain: G; PDB Molecule: cc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
61	c5ezeA	Alignment	not modelled	6.5	21	PDB header: de novo protein Chain: A; PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
62	c5ezeF	Alignment	not modelled	6.5	21	PDB header: de novo protein Chain: F; PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
63	c5f2yA	Alignment	not modelled	6.5	21	PDB header: de novo protein Chain: A; PDB Molecule: cc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
64	d1qgpa	Alignment	not modelled	6.5	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
65	c3gtzA	Alignment	not modelled	6.4	18	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: putative translation initiation inhibitor; PDBTitle: crystal structure of a putative translation initiation inhibitor from2 salmonella typhimurium
66	c1vw44	Alignment	not modelled	6.3	22	PDB header: ribosome Chain: 4; PDB Molecule: 54s ribosomal protein l51, mitochondrial; PDBTitle: structure of the yeast mitochondrial large ribosomal subunit
67	d2g64a1	Alignment	not modelled	6.2	10	Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: 6-pyruvoyl tetrahydropterin synthase
68	c6igz6	Alignment	not modelled	6.0	26	PDB header: plant protein Chain: 6; PDB Molecule: lhca-g; PDBTitle: structure of psi-lhci
69	c5ezeG	Alignment	not modelled	6.0	21	PDB header: de novo protein Chain: G; PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
70	c6ijo9	Alignment	not modelled	6.0	26	PDB header: photosynthesis Chain: 9; PDB Molecule: lhca9; PDBTitle: photosystem i of chlamydomonas reinhardtii
71	d2gxba1	Alignment	not modelled	6.0	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
72	c5f2yC	Alignment	not modelled	5.9	18	PDB header: de novo protein Chain: C; PDB Molecule: cc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
73	d1rrqa1	Alignment	not modelled	5.9	18	Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: Mismatch glycosylase
74	c3e0zB	Alignment	not modelled	5.8	13	PDB header: unknown function Chain: B; PDB Molecule: protein of unknown function; PDBTitle: crystal structure of a putative imidazole glycerol phosphate synthase2 homolog (eubrec_1070) from eubacterium rectale at 1.75 a resolution
75	d1myka	Alignment	not modelled	5.7	32	Fold: Ribbon-helix-helix Superfamily: Ribbon-helix-helix Family: Arc/Mnt-like phage repressors
76	c5f2yD	Alignment	not modelled	5.7	21	PDB header: de novo protein Chain: D; PDB Molecule: cc-hept-hcys-h-e; PDBTitle: a de novo designed heptameric coiled coil cc-hept-homocys-h-e
77	d2ex3b1	Alignment	not modelled	5.7	32	Fold: DNA terminal protein Superfamily: DNA terminal protein Family: DNA terminal protein
78	d1efvb	Alignment	not modelled	5.6	14	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
79	d1baza	Alignment	not modelled	5.5	32	Fold: Ribbon-helix-helix Superfamily: Ribbon-helix-helix Family: Arc/Mnt-like phage repressors
80	c6igz0	Alignment	not modelled	5.5	15	PDB header: plant protein Chain: 0; PDB Molecule: lhca-j; PDBTitle: structure of psi-lhci
						Fold: C2 domain-like

81	d1e7ua2	Alignment	not modelled	5.4	10	Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
82	c2ex3B_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: B: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
83	c2ex3D_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: D: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
84	c2ex3J_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: J: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
85	c2ex3F_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: F: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
86	c2ex3L_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: L: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
87	c2ex3H_	Alignment	not modelled	5.4	32	PDB header: transferase/replication Chain: H: PDB Molecule: dna terminal protein; PDBTitle: bacteriophage phi29 dna polymerase bound to terminal protein
88	d2e1fa1	Alignment	not modelled	5.4	15	Fold: SAM domain-like Superfamily: HRDC-like Family: HRDC domain from helicases
89	c1sb3D_	Alignment	not modelled	5.4	25	PDB header: oxidoreductase Chain: D: PDB Molecule: 4-hydroxybenzoyl-coa reductase alpha subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica
90	c5ezeD_	Alignment	not modelled	5.3	21	PDB header: de novo protein Chain: D: PDB Molecule: cc-hept-bmecys-his-glu; PDBTitle: a de novo designed heptameric coiled coil cc-hept-i18betamecys-l22h-2 i25e
91	c2y3yC_	Alignment	not modelled	5.2	8	PDB header: transcription Chain: C: PDB Molecule: putative nickel-responsive regulator; PDBTitle: holo-ni(ii) hpnikr is a symmetric tetramer containing four canonic2 square-planar ni(ii) ions at physiological ph
92	c3m8yC_	Alignment	not modelled	5.1	16	PDB header: isomerase Chain: C: PDB Molecule: phosphopentomutase; PDBTitle: phosphopentomutase from bacillus cereus after glucose-1,6-bisphosphate2 activation
93	c2bh8B_	Alignment	not modelled	5.1	25	PDB header: transcription Chain: B: PDB Molecule: 1b11; PDBTitle: combinatorial protein 1b11
94	d1v97a5	Alignment	not modelled	5.0	15	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
95	c3zikA_	Alignment	not modelled	5.0	14	PDB header: cell cycle Chain: A: PDB Molecule: wpl1; PDBTitle: structure of the wpl1 protein
96	c5y6qC_	Alignment	not modelled	5.0	18	PDB header: oxidoreductase Chain: C: PDB Molecule: aldehyde oxidase large subunit; PDBTitle: crystal structure of an aldehyde oxidase from methylobacillus sp.2 ky4400