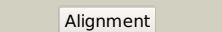
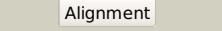
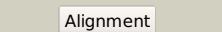
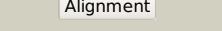
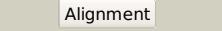
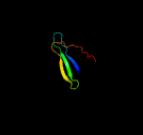
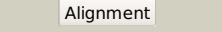
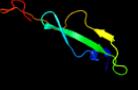
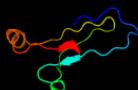
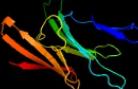
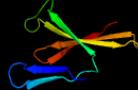


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD06544 (-) _750003_751508
Date	Fri Jul 26 01:50:22 BST 2019
Unique Job ID	e710a3cebb44cd79

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3npeA			100.0	31	PDB header: oxidoreductase Chain: A; PDB Molecule: 9-cis-epoxycarotenoid dioxygenase 1, chloroplastic; PDBTitle: structure of vp14 in complex with oxygen
2	c5v2dA			100.0	28	PDB header: oxidoreductase Chain: A; PDB Molecule: dioxygenase; PDBTitle: crystal structure of pseudomonas brassicacearum lignostilbene2 dioxygenase
3	c5u90A			100.0	29	PDB header: oxidoreductase Chain: A; PDB Molecule: carotenoid oxygenase 1; PDBTitle: crystal structure of co-cao1 in complex with resveratrol
4	c5j54A			100.0	27	PDB header: oxidoreductase Chain: A; PDB Molecule: carotenoid oxygenase; PDBTitle: the structure and mechanism of nov1, a resveratrol-cleaving2 dioxygenase
5	c2biwC			100.0	29	PDB header: oxidoreductase Chain: C; PDB Molecule: apocarotenoid-cleaving oxygenase; PDBTitle: crystal structure of apocarotenoid cleavage oxygenase from2 synechocystis, native enzyme
6	c3fsnA			100.0	24	PDB header: isomerase Chain: A; PDB Molecule: retinal pigment epithelium-specific 65 kda protein; PDBTitle: crystal structure of rpe65 at 2.14 angstrom resolution
7	c1nnoA			72.9	15	PDB header: oxidoreductase Chain: A; PDB Molecule: nitrite reductase; PDBTitle: conformational changes occurring upon no binding in nitrite reductase2 from pseudomonas aeruginosa
8	c1gq1B			70.4	24	PDB header: oxidoreductase Chain: B; PDB Molecule: cytochrome cd1 nitrite reductase; PDBTitle: cytochrome cd1 nitrite reductase, y25s mutant, oxidised form
9	c4cvca			64.6	12	PDB header: oxidoreductase Chain: A; PDB Molecule: alcohol dehydrogenase; PDBTitle: crystal structure of quinone-dependent alcohol dehydrogenase from2 pseudogluconobacter saccharoketogenenes with zinc in the active site
10	c6rteB			48.5	21	PDB header: oxidoreductase Chain: B; PDB Molecule: cytochrome c; PDBTitle: dihydro-heme d1 dehydrogenase nirn in complex with dhe
11	c6damA			40.5	18	PDB header: oxidoreductase Chain: A; PDB Molecule: lanthanide-dependent methanol dehydrogenase xoxf; PDBTitle: crystal structure of lanthanide-dependent methanol dehydrogenase xoxf2 from methylomicrobium buryatense 5g

12	d1mdah	Alignment		36.6	24	Fold: 7-bladed beta-propeller Superfamily: YVTN repeat-like/Quinoprotein amine dehydrogenase Family: Methylamine dehydrogenase, H-chain
13	c3qc2A	Alignment		35.3	22	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase; PDBTitle: crystal structure of a glycosyl hydrolase (bacova_03624) from2 bacteroides ovatus at 2.30 a resolution
14	c5c2mA	Alignment		32.7	25	PDB header: structural protein Chain: A: PDB Molecule: predicted protein; PDBTitle: the de novo evolutionary emergence of a symmetrical protein is shaped2 by folding constraints
15	c6cmkB	Alignment		22.6	13	PDB header: metal binding protein Chain: B: PDB Molecule: aztd protein; PDBTitle: crystal structure of citrobacter koseri aztd
16	c3metB	Alignment		22.3	10	PDB header: transcription Chain: B: PDB Molecule: saga-associated factor 29 homolog; PDBTitle: crystal structure of sgf29 in complex with h3k4me2
17	d1nira2	Alignment		22.0	19	Fold: 8-bladed beta-propeller Superfamily: C-terminal (heme d1) domain of cytochrome cd1-nitrite reductase Family: C-terminal (heme d1) domain of cytochrome cd1-nitrite reductase
18	c1hzK	Alignment		21.6	17	PDB header: immune system Chain: K: PDB Molecule: immunoglobulin heavy chain; PDBTitle: crystal structure of the intact human igg b12 with broad and potent2 activity against primary hiv-1 isolates: a template for hiv vaccine3 design
19	c2j57I	Alignment		20.7	14	PDB header: oxidoreductase Chain: J: PDB Molecule: methylamine dehydrogenase heavy chain; PDBTitle: x-ray reduced paracoccus denitrificans methylamine2 dehydrogenase n-quinol in complex with amicyanin.
20	d1jmxb	Alignment		19.5	21	Fold: 7-bladed beta-propeller Superfamily: YVTN repeat-like/Quinoprotein amine dehydrogenase Family: Quinohemoprotein amine dehydrogenase B chain
21	c3mbrX	Alignment	not modelled	19.2	11	PDB header: transferase Chain: X: PDB Molecule: glutamine cyclotransferase; PDBTitle: crystal structure of the glutamyl cyclase from xanthomonas2 campestris
22	c5i5iA	Alignment	not modelled	18.6	15	PDB header: oxidoreductase Chain: A: PDB Molecule: nitrous-oxide reductase; PDBTitle: shewanella denitrificans nitrous oxide reductase, app form
23	c1yiqA	Alignment	not modelled	18.5	16	PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein alcohol dehydrogenase; PDBTitle: molecular cloning and structural analysis of2 quinohemoprotein alcohol dehydrogenase adhiig from3 quinoplasmodium putida hk5. comparison to the other4 quinohemoprotein alcohol dehydrogenase adhiib found in the5 same microorganism.
24	c1kb0A	Alignment	not modelled	17.6	15	PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein alcohol dehydrogenase; PDBTitle: crystal structure of quinohemoprotein alcohol dehydrogenase from2 comamonas testosteroni
25	c1n7dA	Alignment	not modelled	17.6	16	PDB header: lipid transport Chain: A: PDB Molecule: low-density lipoprotein receptor; PDBTitle: extracellular domain of the ldl receptor
26	d1zaka2	Alignment	not modelled	16.6	33	Fold: Rubredoxin-like Superfamily: Microbial and mitochondrial ADK, insert "zinc finger" domain Family: Microbial and mitochondrial ADK, insert "zinc finger" domain
27	d1k91a	Alignment	not modelled	14.2	31	Fold: P-domain of calnexin/calreticulin Superfamily: P-domain of calnexin/calreticulin Family: P-domain of calnexin/calreticulin
						Fold: Immunoglobulin-like beta-sandwich

28	d1uvqb1	Alignment	not modelled	12.8	23	Superfamily: Immunoglobulin Family: C1 set domains (antibody constant domain-like)
29	d1m7ja2	Alignment	not modelled	12.6	26	Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: D-aminoacylase
30	d1mspa	Alignment	not modelled	12.2	50	Fold: Immunoglobulin-like beta-sandwich Superfamily: PapD-like Family: MSP-like
31	c5v1dA	Alignment	not modelled	11.6	11	PDB header: transferase/substrate Chain: A: PDB Molecule: eif2ak3 protein; PDBTitle: complex structure of the bovine perk luminal domain and its substrate2 peptide
32	c4iiqC	Alignment	not modelled	11.5	19	PDB header: immune system Chain: C: PDB Molecule: beta-2-microglobulin, mhc class i-related protein; PDBTitle: crystal structure of a human mait tcr in complex with bovine mr1
33	c5aycA	Alignment	not modelled	11.2	24	PDB header: transferase Chain: A: PDB Molecule: 4-o-beta-d-mannosyl-d-glucose phosphorylase; PDBTitle: crystal structure of ruminococcus albus 4-o-beta-d-mannosyl-d-glucose2 phosphorylase (ramp1) in complexes with sulfate and 4-o-beta-d-3 mannosyl-d-glucose
34	d1es0a1	Alignment	not modelled	10.6	23	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: C1 set domains (antibody constant domain-like)
35	c5f30B	Alignment	not modelled	10.6	11	PDB header: oxidoreductase Chain: B: PDB Molecule: thiocyanate dehydrogenase; PDBTitle: thiocyanate dehydrogenase from thioalkalivibrio paradoxus
36	d1kb0a2	Alignment	not modelled	10.6	13	Fold: 8-bladed beta-propeller Superfamily: Quinoprotein alcohol dehydrogenase-like Family: Quinoprotein alcohol dehydrogenase-like
37	d1bf2a1	Alignment	not modelled	10.6	14	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
38	c3elqA	Alignment	not modelled	10.5	13	PDB header: transferase Chain: A: PDB Molecule: arylsulfate sulfotransferase; PDBTitle: crystal structure of a bacterial arylsulfate2 sulfotransferase
39	c4ozuA	Alignment	not modelled	10.1	10	PDB header: structural protein Chain: A: PDB Molecule: coronin; PDBTitle: crystal structure of wd40 domain from toxoplasma gondii coronin
40	d2oz4a1	Alignment	not modelled	8.9	36	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: C2 set domains
41	d2hu7a1	Alignment	not modelled	8.6	19	Fold: 7-bladed beta-propeller Superfamily: Peptidase/esterase 'gauge' domain Family: Acylamino-acid-releasing enzyme, N-terminal domain
42	c3pqyB	Alignment	not modelled	8.5	20	PDB header: immune system Chain: B: PDB Molecule: beta-2-microglobulin; PDBTitle: crystal structure of 6218 tcr in complex with the h2db-pa224
43	c5c2wD	Alignment	not modelled	8.5	5	PDB header: oxidoreductase Chain: D: PDB Molecule: hydrazine synthase alpha subunit; PDBTitle: kuuenia stuttgartiensis hydrazine synthase pressurized with 20 bar xenon
44	c3watA	Alignment	not modelled	8.3	18	PDB header: transferase Chain: A: PDB Molecule: 4-o-beta-d-mannosyl-d-glucose phosphorylase; PDBTitle: crystal structure of 4-o-beta-d-mannosyl-d-glucose phosphorylase mgp2 complexed with man+glc
45	d2q3za4	Alignment	not modelled	8.3	21	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
46	d1c16a1	Alignment	not modelled	7.8	18	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: C1 set domains (antibody constant domain-like)
47	c2vb6A	Alignment	not modelled	7.8	29	PDB header: motor protein Chain: A: PDB Molecule: myosin vi; PDBTitle: myosin vi (md-insert2-cam, delta insert1) post-rigor state (2 crystal form 2)
48	c3ov6A	Alignment	not modelled	7.7	19	PDB header: immune system Chain: A: PDB Molecule: beta-2-microglobulin, t-cell surface glycoprotein cd1c, t- PDBTitle: cd1c in complex with mpm (mannosyl-beta1-phosphomycoketide)
49	c1qniE	Alignment	not modelled	7.7	13	PDB header: oxidoreductase Chain: E: PDB Molecule: nitrous-oxide reductase; PDBTitle: crystal structure of nitrous oxide reductase from pseudomonas nautica,2 at 2.4a resolution
50	d1qnia2	Alignment	not modelled	7.5	12	Fold: 7-bladed beta-propeller Superfamily: Nitrous oxide reductase, N-terminal domain Family: Nitrous oxide reductase, N-terminal domain
51	d1qo3a1	Alignment	not modelled	7.4	18	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: C1 set domains (antibody constant domain-like)
52	c2dzjA	Alignment	not modelled	7.3	31	PDB header: sugar binding protein Chain: A: PDB Molecule: synaptic glycoprotein sc2; PDBTitle: 2dzj/solution structure of the n-terminal ubiquitin-like2 domain in human synaptic glycoprotein sc2
53	c2jroA	Alignment	not modelled	7.3	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of so0334 from shewanella

						oneidensis. northeast2 structural genomics target sor75
54	d2g50a1	Alignment	not modelled	7.2	27	Pdb: PK beta-barrel domain-like Superfamily: PK beta-barrel domain-like Family: Pyruvate kinase beta-barrel domain
55	c2k8qA_	Alignment	not modelled	7.1	7	PDB header: structural protein Chain: A: PDB Molecule: protein shq1; PDBTitle: nmr structure of shq1p n-terminal domain
56	d1liua1	Alignment	not modelled	7.0	25	Pdb: PK beta-barrel domain-like Superfamily: PK beta-barrel domain-like Family: Pyruvate kinase beta-barrel domain
57	d1vjja4	Alignment	not modelled	7.0	17	Pdb: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core
58	d1iaka1	Alignment	not modelled	7.0	23	Pdb: immunoglobulin-like beta-sandwich Superfamily: immunoglobulin Family: C1 set domains (antibody constant domain-like)
59	d1w1ha_	Alignment	not modelled	6.9	21	Pdb: PH domain-like barrel Superfamily: PH domain-like Family: Pleckstrin-homology domain (PH domain)
60	c3pohA_	Alignment	not modelled	6.8	9	PDB header: hydrolase Chain: A: PDB Molecule: endo-beta-n-acetylglucosaminidase f1; PDBTitle: crystal structure of an endo-beta-n-acetylglucosaminidase (bt_3987)2 from bacteroides thetaiotaomicron vpi-5482 at 1.55 a resolution
61	c5sv7D_	Alignment	not modelled	6.8	4	PDB header: translation Chain: D: PDB Molecule: eukaryotic translation initiation factor 2-alpha kinase 3; PDBTitle: the crystal structure of a chaperone
62	d1flga_	Alignment	not modelled	6.7	13	Pdb: 8-bladed beta-propeller Superfamily: Quinoprotein alcohol dehydrogenase-like Family: Quinoprotein alcohol dehydrogenase-like
63	d1muja1	Alignment	not modelled	6.7	25	Pdb: immunoglobulin-like beta-sandwich Superfamily: immunoglobulin Family: C1 set domains (antibody constant domain-like)
64	c1l9mB_	Alignment	not modelled	6.6	17	PDB header: transferase Chain: B: PDB Molecule: protein-glutamine glutamyltransferase e3; PDBTitle: three-dimensional structure of the human transglutaminase 32 enzyme: binding of calcium ions change structure for3 activation
65	d1xv2a_	Alignment	not modelled	6.6	26	Pdb: AF0104/ALDC/Ptd012-like Superfamily: AF0104/ALDC/Ptd012-like Family: Alpha-acetolactate decarboxylase-like
66	d1hdmb1	Alignment	not modelled	6.5	23	Pdb: immunoglobulin-like beta-sandwich Superfamily: immunoglobulin Family: C1 set domains (antibody constant domain-like)
67	c4ozkA_	Alignment	not modelled	6.4	25	PDB header: toxin Chain: A: PDB Molecule: putative bacteriocin; PDBTitle: crystal structure of laterosporulin, a broad spectrum leaderless2 bacteriocin produced by brevibacillus laterosporus strain gi-9
68	d1fp5a2	Alignment	not modelled	6.4	13	Pdb: immunoglobulin-like beta-sandwich Superfamily: immunoglobulin Family: C1 set domains (antibody constant domain-like)
69	c4wndB_	Alignment	not modelled	6.3	11	PDB header: signaling protein/protein binding Chain: B: PDB Molecule: ferm and pdz domain-containing protein 4; PDBTitle: crystal structure of the tpr domain of lgn in complex with2 frmpd4/pres01 at 1.5 angstrom resolution
70	d1uowa_	Alignment	not modelled	6.3	19	Pdb: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
71	c4wneB_	Alignment	not modelled	6.3	13	PDB header: signaling protein/protein binding Chain: B: PDB Molecule: peptide from ferm and pdz domain-containing protein 4; PDBTitle: crystal structure of the tpr domain of lgn in complex with2 frmpd4/pres01 at 2.0 angstrom resolution
72	c3pqyG_	Alignment	not modelled	6.3	20	PDB header: immune system Chain: G: PDB Molecule: beta-2-microglobulin; PDBTitle: crystal structure of 6218 tcr in complex with the h2db-pa224
73	c2qrsA_	Alignment	not modelled	6.3	18	PDB header: immune system Chain: A: PDB Molecule: h-2 class i histocompatibility antigen k-b alpha chain, PDBTitle: crystal structure of a single chain trimer composed of the mhc i heavy2 chain h-2kb y84a, beta-2microglobulin, and ovalbumin-derived peptide.
74	c3q54A_	Alignment	not modelled	6.2	11	PDB header: lipid binding protein Chain: A: PDB Molecule: outer membrane assembly lipoprotein yfgl; PDBTitle: crystal structure of escherichia coli bamb
75	c2bkiA_	Alignment	not modelled	6.2	29	PDB header: motor protein/metal-binding protein Chain: A: PDB Molecule: unconventional myosin; PDBTitle: myosin vi nucleotide-free (mdinsert2-iq) crystal structure
76	c2bc4C_	Alignment	not modelled	6.2	11	PDB header: immune system Chain: C: PDB Molecule: hla class ii histocompatibility antigen, dm alpha chain; PDBTitle: crystal structure of hla-dm
77	d1dqva2	Alignment	not modelled	6.1	13	Pdb: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
78	c3eudef	Alignment	not modelled	6.1	7	PDB header: nuclear protein Chain: E: PDB Molecule: protein shq1; PDBTitle: structure of the cs domain of the essential h/aca rnp assembly protein2 shq1p

79	c3e7hA		Alignment	not modelled	6.0	32	PDB header: transferase Chain: A: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: the crystal structure of the beta subunit of the dna-directed rna2 polymerase from vibrio cholerae o1 biovar eltor
80	d1vgka1		Alignment	not modelled	6.0	18	Fold: immunoglobulin-like beta-sandwich Superfamily: immunoglobulin Family: C1 set domains (antibody constant domain-like)
81	c2hyil		Alignment	not modelled	5.9	19	PDB header: hydrolase/rna binding protein/rna Chain: J: PDB Molecule: protein cas3; PDBTitle: structure of the human exon junction complex with a trapped2 dead-box helicase bound to rna Fold: Protein-L-isoaspartyl O-methyltransferase, C-terminal domain Superfamily: Protein-L-isoaspartyl O-methyltransferase, C-terminal domain Family: Protein-L-isoaspartyl O-methyltransferase, C-terminal domain
82	d1dl5a2		Alignment	not modelled	5.9	38	PDB header: ligase, signaling protein Chain: A: PDB Molecule: ubiquitin-conjugating enzyme e2 variant 1; PDBTitle: solution structure of the human ubiquitin-conjugating2 enzyme variant uev1a
83	c2hlwA		Alignment	not modelled	5.8	10	Fold: PK beta-barrel domain-like Superfamily: PK beta-barrel domain-like Family: Pyruvate kinase beta-barrel domain
84	d1pkma1		Alignment	not modelled	5.8	28	PDB header: oxidoreductase Chain: B: PDB Molecule: probable jmjc domain-containing histone demethylating prot PDBTitle: crystal structure of the jumonji domain of human jumonji domain2 containing 1c protein
85	c2ypdB		Alignment	not modelled	5.8	18	PDB header: hydrolyase Chain: A: PDB Molecule: possible atp-dependent dna helicase recg-related protein; PDBTitle: solution nmr structure of the n-terminal domain of putative atp-2 dependent dna helicase recg-related protein from nitrosomonas3 europaea, northeast structural genomics consortium target ner70a
86	c2kyyA		Alignment	not modelled	5.8	27	PDB header: hydrolase Chain: A: PDB Molecule: choline binding protein; PDBTitle: nmr structure of excalibur domain of cbp1
87	c5j8tA		Alignment	not modelled	5.7	24	PDB header: oxidoreductase Chain: A: PDB Molecule: sorbose dehydrogenase; PDBTitle: crystal structure and functional studies of quinoprotein I-sorbose2 dehydrogenase from ketogulonicigenium vulgare y25
88	c4mh1A		Alignment	not modelled	5.7	22	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
89	d1mdca		Alignment	not modelled	5.7	17	PDB header: hydrolase/rna binding protein/rna Chain: I: PDB Molecule: protein cas3; PDBTitle: the crystal structure of ejc in its transition state
90	c3ex7l		Alignment	not modelled	5.7	19	PDB header: unknown function Chain: A: PDB Molecule: putative lipoprotein; PDBTitle: crystal structure of campylobacter jejuni cj0090
91	c4gioA		Alignment	not modelled	5.6	29	PDB header: dna binding protein Chain: A: PDB Molecule: histone family protein nucleoid-structuring protein h-ns; PDBTitle: solution structure of the c-terminal domain of h-ns like protein bv3f
92	c2i92A		Alignment	not modelled	5.6	38	PDB header: motor protein/metal-binding protein Chain: A: PDB Molecule: unconventional myosin; PDBTitle: myosin vi nucleotide-free (mdinsert2) crystal structure
93	c2bkhA		Alignment	not modelled	5.6	29	Fold: Immunoglobulin-like beta-sandwich Superfamily: Immunoglobulin Family: C1 set domains (antibody constant domain-like)
94	d1k8ib1		Alignment	not modelled	5.5	22	PDB header: immune system Chain: A: PDB Molecule: ighg1 and ighg4 hybrid; PDBTitle: heteromeric tandem igg4/igg1 fc
95	c6hygA		Alignment	not modelled	5.5	15	PDB header: oxidoreductase Chain: A: PDB Molecule: lysine-specific demethylase 3b; PDBTitle: crystal structure of jmjc domain of human histone 3 lysine-specific2 demethylase 3b (kdm3b)
96	c4c8dA		Alignment	not modelled	5.5	36	PDB header: protein binding Chain: A: PDB Molecule: outer membrane protein assembly factor bamb; PDBTitle: crystal structure of bamb from pseudomonas aeruginosa
97	c4hdjA		Alignment	not modelled	5.5	16	PDB header: signaling protein Chain: P: PDB Molecule: insulin receptor; PDBTitle: insulin receptor ectodomain in complex with two insulin molecules -c12 symmetry
98	c6cebP		Alignment	not modelled	5.5	86	PDB header: immune system Chain: D: PDB Molecule: beta-2 microglobulin; PDBTitle: structure of mcd1d with bound glycolipid bbgl-2c from2 borrelia burgdorferi
99	c3ilqD		Alignment	not modelled	5.4	20	