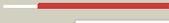
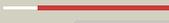
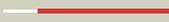
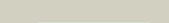


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD3766 (-)_4212471_4213160
Date	Fri Aug 9 18:20:47 BST 2019
Unique Job ID	aead0f5bfba05a93

Detailed template
information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2nw0B_	 Alignment		99.3	20	PDB header: hydrolase Chain: B: PDB Molecule: plyb; PDBTitle: crystal structure of a lysin
2	c2wagA_	 Alignment		99.3	16	PDB header: hydrolase Chain: A: PDB Molecule: lysozyme, putative; PDBTitle: the structure of a family 25 glycosyl hydrolase from2 bacillus anthracis.
3	c4jz5A_	 Alignment		99.2	24	PDB header: hydrolase Chain: A: PDB Molecule: gp26; PDBTitle: high-resolution structure of catalytic domain of endolysin ply40 from2 bacteriophage p40 of listeria monocytogenes
4	c4krtA_	 Alignment		99.1	24	PDB header: hydrolase Chain: A: PDB Molecule: autolytic lysozyme; PDBTitle: x-ray structure of endolysin from clostridium perfringens phage2 phism101
5	d1jfxa_	 Alignment		98.9	24	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: 1,4-beta-N-acetylmuraminidase
6	c4ff5A_	 Alignment		98.9	21	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase 25; PDBTitle: structure basis of a novel virulence factor gh1p a glycosyl hydrolase2 25 of streptococcus pneumoniae participating in host cell invasion
7	c5a6sA_	 Alignment		98.7	18	PDB header: structural protein Chain: A: PDB Molecule: endolysin; PDBTitle: crystal structure of the ctp11 endolysin reveals how its2 activity is regulated by a secondary translation product
8	c5jipB_	 Alignment		98.5	25	PDB header: hydrolase Chain: B: PDB Molecule: cortical-lytic enzyme; PDBTitle: crystal structure of the clostridium perfringens spore cortex lytic2 enzyme slem
9	c2x8rE_	 Alignment		98.4	25	PDB header: hydrolase Chain: E: PDB Molecule: glycosyl hydrolase; PDBTitle: the structure of a family gh25 lysozyme from aspergillus2 fumigatus
10	c2wwcA_	 Alignment		96.9	19	PDB header: hydrolase Chain: A: PDB Molecule: 1,4-beta-n-acetylmuramidase; PDBTitle: 3d-structure of the modular autolysin lytc from2 streptococcus pneumoniae in complex with synthetic3 peptidoglycan ligand
11	d2j8ga2	 Alignment		95.3	17	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: 1,4-beta-N-acetylmuraminidase

12	c2j8fA_	Alignment		94.6	24	PDB header: hydrolase Chain: A; PDB Molecule: lysozyme; PDBTitle: crystal structure of the modular cpl-1 endolysin complexed with a2 peptidoglycan analogue (e94q mutant in complex with a disaccharide-3 pentapeptide)
13	c4b1pJ_	Alignment		60.8	69	PDB header: transferase/dna Chain: J; PDB Molecule: rna polymerase subunit 13; PDBTitle: archaeal rnap-dna binary complex at 4.32ang
14	c4aybQ_	Alignment		60.5	69	PDB header: transferase Chain: Q; PDB Molecule: dna-directed rna polymerase; PDBTitle: rnap at 3.2ang
15	d1vaza_	Alignment		59.2	23	Fold: NSFL1 (p97 ATPase) cofactor p47, SEP domain Superfamily: NSFL1 (p97 ATPase) cofactor p47, SEP domain Family: NSFL1 (p97 ATPase) cofactor p47, SEP domain
16	d1ss6a_	Alignment		53.5	23	Fold: NSFL1 (p97 ATPase) cofactor p47, SEP domain Superfamily: NSFL1 (p97 ATPase) cofactor p47, SEP domain Family: NSFL1 (p97 ATPase) cofactor p47, SEP domain
17	c4b1oQ_	Alignment		49.8	69	PDB header: transferase/dna Chain: Q; PDB Molecule: rna polymerase subunit 13; PDBTitle: archaeal rnap-dna binary complex at 4.32ang
18	c2y0sj_	Alignment		49.6	69	PDB header: transferase Chain: J; PDB Molecule: rna polymerase subunit 13; PDBTitle: crystal structure of sulfolobus shibatae rna polymerase in p21 space2 group
19	c2y0sQ_	Alignment		49.6	69	PDB header: transferase Chain: Q; PDB Molecule: rna polymerase subunit 13; PDBTitle: crystal structure of sulfolobus shibatae rna polymerase in p21 space2 group
20	c4e0uB_	Alignment		46.8	39	PDB header: transferase Chain: B; PDB Molecule: cyclic dipeptide n-prenyltransferase; PDBTitle: crystal structure of cdpnpt in complex with thiolodiphosphate and (s)-2 benzodiazepindione
21	c3hkzZ_	Alignment	not modelled	43.7	62	PDB header: transferase Chain: Z; PDB Molecule: dna-directed rna polymerase subunit 13; PDBTitle: the x-ray crystal structure of rna polymerase from archaea
22	c2waqQ_	Alignment	not modelled	42.6	69	PDB header: transcription Chain: Q; PDB Molecule: dna-directed rna polymerase rpo13 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-directed rna2 polymerase
23	c3hkzY_	Alignment	not modelled	40.6	62	PDB header: transferase Chain: Y; PDB Molecule: dna-directed rna polymerase subunit 13; PDBTitle: the x-ray crystal structure of rna polymerase from archaea
24	c1q88B_	Alignment	not modelled	37.9	35	PDB header: dna binding protein Chain: B; PDB Molecule: 39 kda initiator binding protein; PDBTitle: crystal structure of the c-domain of the t.vaginalis inr2 binding protein, ibp39 (monoclinic form)
25	c3vwbA_	Alignment	not modelled	37.9	13	PDB header: transcription/dna Chain: A; PDB Molecule: virulence regulon transcriptional activator virb; PDBTitle: crystal structure of virb core domain (se-met derivative) complexed2 with the cis-acting site (5-bru modifications) upstream icsb promoter
26	c5yaaD_	Alignment	not modelled	37.5	11	PDB header: hydrolase Chain: D; PDB Molecule: meiosis regulator and mrna stability factor 1; PDBTitle: crystal structure of marf1 nyn domain from mus musculus
27	c3i4zA_	Alignment	not modelled	37.4	34	PDB header: transferase Chain: A; PDB Molecule: tryptophan dimethylallyltransferase; PDBTitle: crystal structure of the dimethylallyl tryptophan synthase fgap2 from2 aspergillus fumigatus
28	d1q88a_	Alignment	not modelled	37.3	35	Fold: 39 kda initiator binding protein, IBP39, C-terminal domains Superfamily: 39 kda initiator binding protein, IBP39, C-terminal

28	c1q60a	Alignment	not modelled	37.3	33	domains Family: 39 kda initiator binding protein, IBP39, C-terminal domains
29	c3o2kA	Alignment	not modelled	35.6	21	PDB header: transferase Chain: A: PDB Molecule: brevianamide f prenilyltransferase; PDBTitle: crystal structure of breviaamide f prenilyltransferase complexed with2 breviaamide f and dimethylallyl s-thiolodiphosphate
30	c4aczb	Alignment	not modelled	32.9	16	PDB header: hydrolase Chain: B: PDB Molecule: endo-alpha-mannosidase; PDBTitle: structure of the gh99 endo-alpha-mannosidase from2 bacteroides thetaiotaomicron
31	c5kdaA	Alignment	not modelled	32.4	33	PDB header: transferase Chain: A: PDB Molecule: aromatic prenilyltransferase; PDBTitle: crystal structure of the aromatic prenilyltransferase atapt from2 aspergillus terreus a8-4 in complex with dimethylallyl s-3 thiolodiphosphate and genistein
32	c3fdgA	Alignment	not modelled	32.3	18	PDB header: hydrolase Chain: A: PDB Molecule: dipeptidase ac. metallo peptidase. merops family m19; PDBTitle: the crystal structure of the dipeptidase ac, metallo peptidase. merops2 family m19
33	d1vcla3	Alignment	not modelled	24.8	50	Fold: Hemolytic lectin CEL-III, C-terminal domain Superfamily: Hemolytic lectin CEL-III, C-terminal domain Family: Hemolytic lectin CEL-III, C-terminal domain
34	c3d0jA	Alignment	not modelled	24.3	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein ca_c3497; PDBTitle: crystal structure of conserved protein of unknown function ca_c34972 from clostridium acetobutylicum atcc 824
35	c4m1pA	Alignment	not modelled	24.0	27	PDB header: transcription repressor Chain: A: PDB Molecule: copper-sensitive operon repressor (csor); PDBTitle: crystal structure of the copper-sensing repressor csor with cu(i) from2 geobacillus thermodenitrificans ng80-2
36	c2mkfA	Alignment	not modelled	23.4	31	PDB header: signaling protein Chain: A: PDB Molecule: brca1-a complex subunit rap80; PDBTitle: solution structure of the e81 deletion mutant of the tandem uims of2 rap80
37	c4z80D	Alignment	not modelled	21.7	63	PDB header: membrane protein Chain: D: PDB Molecule: cytoadherence-linked asexual protein; PDBTitle: crystal structure of toxoplasma gondii ama4 di-dii-egf1 in complex2 with a 33 aa tgron2i1 peptide
38	c3kgbA	Alignment	not modelled	21.5	17	PDB header: transferase Chain: A: PDB Molecule: thymidylate synthase 1/2; PDBTitle: crystal structure of thymidylate synthase 1/2 from encephalitozoon2 cuniculi at 2.2 a resolution
39	c4z80C	Alignment	not modelled	21.5	63	PDB header: membrane protein Chain: C: PDB Molecule: cytoadherence-linked asexual protein; PDBTitle: crystal structure of toxoplasma gondii ama4 di-dii-egf1 in complex2 with a 33 aa tgron2i1 peptide
40	c4ad2C	Alignment	not modelled	20.7	14	PDB header: hydrolase Chain: C: PDB Molecule: glycosyl hydrolase family 71; PDBTitle: structure of the gh99 endo-alpha-mannosidase from bacteroides2 xylanisolvans in complex with glucose-1,3-isofagomine
41	c1cixA	Alignment	not modelled	20.4	32	PDB header: antimicrobial peptide Chain: A: PDB Molecule: protein (tachystatin a); PDBTitle: three-dimensional structure of antimicrobial peptide2 tachystatin a isolated from horseshoe crab
42	d1cixa	Alignment	not modelled	20.4	32	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: omega toxin-like Family: Spider toxins
43	c2ppxA	Alignment	not modelled	19.9	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1735; PDBTitle: crystal structure of a hth xre-family like protein from agrobacterium2 tumefaciens
44	d2ppxA1	Alignment	not modelled	19.9	29	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
45	c3ix6B	Alignment	not modelled	19.7	23	PDB header: transferase Chain: B: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of thymidylate synthase thya from brucella2 melitensis
46	c5j9iH	Alignment	not modelled	19.6	13	PDB header: antitoxin Chain: H: PDB Molecule: antitoxin iga-2; PDBTitle: crystal structure of the higa2 antitoxin c-terminal domain
47	c4c8gH	Alignment	not modelled	19.6	19	PDB header: transcription Chain: H: PDB Molecule: dna topoisomerase 2-associated protein pat1; PDBTitle: crystal structure of the yeast lsm1-7-pat1 complex
48	d1w3ia	Alignment	not modelled	19.4	42	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
49	c5jaaB	Alignment	not modelled	19.2	13	PDB header: toxin Chain: B: PDB Molecule: antitoxin iga-2; PDBTitle: crystal structure of the higa2 toxin-antitoxin complex
50	d1f28a	Alignment	not modelled	18.6	13	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
51	d1r69a	Alignment	not modelled	18.4	36	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
52	d1bkpa	Alignment	not modelled	18.1	20	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
53	c3fmyA	Alignment	not modelled	18.1	19	PDB header: dna binding protein Chain: A: PDB Molecule: hth-type transcriptional regulator mqsa PDBTitle: structure of the c-terminal domain of the e. coli protein2 mqsa (ygit/b3021)

54	c4dq1A	Alignment	not modelled	17.9	13	PDB header: transferase Chain: A: PDB Molecule: thymidylate synthase; PDBTitle: thymidylate synthase from staphylococcus aureus.
55	d1qzfa2	Alignment	not modelled	17.9	17	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
56	c3v8hB	Alignment	not modelled	17.6	7	PDB header: transferase Chain: B: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of thymidylate synthase from burkholderia2 thailandensis
57	c6e11F	Alignment	not modelled	17.3	86	PDB header: protein transport Chain: F: PDB Molecule: exported protein 2; PDBTitle: ptex core complex in the resetting (compact) state
58	d1hvya	Alignment	not modelled	17.2	17	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
59	d1uf2c2	Alignment	not modelled	16.9	44	Fold: Viral protein domain Superfamily: Viral protein domain Family: Top domain of virus capsid protein
60	d2auwa1	Alignment	not modelled	16.8	33	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE0471 C-terminal domain-like
61	d2croa	Alignment	not modelled	16.8	29	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
62	c4iswB	Alignment	not modelled	16.7	17	PDB header: transferase Chain: B: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of phosphorylated c.elegans thymidylate synthase in2 complex with dump
63	d1seja2	Alignment	not modelled	16.7	17	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
64	d2g8oa1	Alignment	not modelled	16.6	20	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
65	c5mmjw	Alignment	not modelled	16.5	19	PDB header: ribosome Chain: W: PDB Molecule: PDBTitle: structure of the small subunit of the chloroplast ribosome
66	d1sq8a	Alignment	not modelled	16.3	36	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
67	d2tsra	Alignment	not modelled	16.3	13	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
68	c4g9uD	Alignment	not modelled	16.3	13	PDB header: transferase Chain: D: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of trichinella spiralis thymidylate synthase2 complexed with dump
69	d1ug2a	Alignment	not modelled	16.2	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Myb/SANT domain
70	c2j0fC	Alignment	not modelled	16.0	27	PDB header: transferase Chain: C: PDB Molecule: thymidine phosphorylase; PDBTitle: structural basis for non-competitive product inhibition in2 human thymidine phosphorylase: implication for drug design
71	c6h4eB	Alignment	not modelled	15.6	35	PDB header: lyase Chain: B: PDB Molecule: putative n-acetylneuraminate lyase; PDBTitle: proteus mirabilis n-acetylneuraminate lyase
72	c2aaZG	Alignment	not modelled	15.6	17	PDB header: transferase Chain: G: PDB Molecule: thymidylate synthase; PDBTitle: cryptococcus neoformans thymidylate synthase complexed with substrate2 and an antifolate
73	d2a6ca1	Alignment	not modelled	15.4	50	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
74	d1lutxa	Alignment	not modelled	15.4	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
75	c6aujC	Alignment	not modelled	15.3	20	PDB header: transferase Chain: C: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of thymidylate synthase from elizabethkingia2 anophelis nuhp1
76	c4pu4C	Alignment	not modelled	15.1	39	PDB header: toxin/antitoxin/dna Chain: C: PDB Molecule: toxin-antitoxin system antidote transcriptional repressor PDBTitle: shewanella oneidensis mr-1 toxin antitoxin system hipa, hipb and its2 operator dna complex (space group p21)
77	d1tisa	Alignment	not modelled	14.9	13	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
78	c1zx4B	Alignment	not modelled	14.9	27	PDB header: cell cycle Chain: B: PDB Molecule: plasmid partition par b protein; PDBTitle: structure of parb bound to dna
79	c2ebkA	Alignment	not modelled	14.5	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: rwd domain-containing protein 3; PDBTitle: solution structure of the rwd domain of human rwd domain2 containing protein 3
80	c3pqeD	Alignment	not modelled	14.5	17	PDB header: oxidoreductase Chain: D: PDB Molecule: l-lactate dehydrogenase; PDBTitle: crystal structure of l-lactate dehydrogenase from bacillus subtilis2 with h171c mutation

81	c2kt9A_	 Alignment	not modelled	14.3	11	PDB header: ribosomal protein Chain: A: PDB Molecule: probable 30s ribosomal protein psrp-3; PDBTitle: solution nmr structure of probable 30s ribosomal protein2 psrp-3 (ycf65-like protein) from synechocystis sp. (strain3 pcc 6803), northeast structural genomics consortium target4 target sgr46
82	d1tswa_	 Alignment	not modelled	14.3	19	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
83	d1j3kc_	 Alignment	not modelled	13.9	13	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
84	c2hpgB_	 Alignment	not modelled	13.3	13	PDB header: ligand binding protein Chain: B: PDB Molecule: abc transporter, periplasmic substrate-binding PDBTitle: the crystal structure of a thermophilic trap periplasmic2 binding protein
85	d1xrsb2	 Alignment	not modelled	13.2	67	Fold: Dodecin subunit-like Superfamily: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain Family: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain
86	d1ldma2	 Alignment	not modelled	13.0	25	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
87	c3qj7D_	 Alignment	not modelled	13.0	21	PDB header: transferase Chain: D: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of the mycobacterium tuberculosis thymidylate2 synthase (thya) bound to dump
88	c5c54D_	 Alignment	not modelled	12.9	31	PDB header: lyase Chain: D: PDB Molecule: dihydrodipicolinate synthase/n-acetylneuraminase lyase; PDBTitle: crystal structure of a novel n-acetylneuraminic acid lyase from2 corynebacterium glutamicum
89	d1pkxa2	 Alignment	not modelled	12.9	39	Fold: Cytidine deaminase-like Superfamily: Cytidine deaminase-like Family: AICAR transformylase domain of bifunctional purine biosynthesis enzyme ATIC
90	c4bpsA_	 Alignment	not modelled	12.8	30	PDB header: hydrolase Chain: A: PDB Molecule: fkbo; PDBTitle: crystal structure of chorismatase at 1.08 angstrom resolution.
91	c3egyX_	 Alignment	not modelled	12.7	24	PDB header: transferase Chain: X: PDB Molecule: thymidylate synthase; PDBTitle: crystal structure of human thymidylate synthase a191k with loop 181-2 197 stabilized in the inactive conformation
92	c2jvIA_	 Alignment	not modelled	12.7	21	PDB header: transcription Chain: A: PDB Molecule: trmbf1; PDBTitle: nmr structure of the c-terminal domain of mbf1 of trichoderma reesei
93	c3vx8C_	 Alignment	not modelled	12.6	30	PDB header: ligase Chain: C: PDB Molecule: autophagy-related protein 3; PDBTitle: crystal structure of arabidopsis thaliana atg7ntd-atg3 complex
94	c2wb1Q_	 Alignment	not modelled	12.2	67	PDB header: transcription Chain: Q: PDB Molecule: dna-directed rna polymerase rpo13 subunit; PDBTitle: the complete structure of the archaeal 13-subunit dna-2 directed rna polymerase
95	d1b5ea_	 Alignment	not modelled	12.0	20	Fold: Thymidylate synthase/dCMP hydroxymethylase Superfamily: Thymidylate synthase/dCMP hydroxymethylase Family: Thymidylate synthase/dCMP hydroxymethylase
96	c5z7iC_	 Alignment	not modelled	12.0	41	PDB header: dna binding protein/dna Chain: C: PDB Molecule: cell cycle regulatory protein gcra; PDBTitle: caulobacter crescentus gcra dna-binding domain(dbd)in complex with2 unmethylated dsdna
97	c2vc6A_	 Alignment	not modelled	11.8	19	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: structure of mosa from s. melloti with pyruvate bound
98	c3omtA_	 Alignment	not modelled	11.8	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: putative antitoxin component, chu_2935 protein, from xre family from2 prevotella buccae.
99	d1z84a1	 Alignment	not modelled	11.8	13	Fold: HIT-like Superfamily: HIT-like Family: Hexose-1-phosphate uridylyltransferase