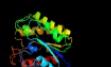
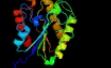
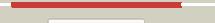
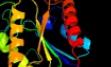
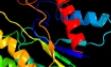
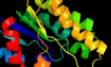


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD0518 (-_610191_610886)
Date	Fri Jul 26 01:50:06 BST 2019
Unique Job ID	fb3218c8284b4a18

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2waoA			100.0	17	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase e; PDBTitle: structure of a family two carbohydrate esterase from clostridium2 thermocellum in complex with cellobiohexaose
2	c4xvhA			100.0	20	PDB header: hydrolase Chain: A: PDB Molecule: carbohydrate esterase family 2 (ce2); PDBTitle: crystal structure of a corynascus thermopiles (myceliophthora2 fergusii) carbohydrate esterase family 2 (ce2) enzyme plus3 carbohydrate binding domain (cbd)
3	c4devE			100.0	15	PDB header: hydrolase Chain: E: PDB Molecule: acetyl-xylan esterase est2a; PDBTitle: an acetyl xylan esterase (est2a) from the rumen bacterium butyrivibrio2 proteoclasticus.
4	c2waaA			100.0	15	PDB header: hydrolase Chain: A: PDB Molecule: xylan esterase, putative, axe2c; PDBTitle: structure of a family two carbohydrate esterase from2 cellvibrio japonicus
5	c6iqbA			100.0	18	PDB header: hydrolase Chain: A: PDB Molecule: sgnh-hydrolase family esterase; PDBTitle: esterase aline4 mutant-s13a
6	c4lhsA			100.0	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative gdsl-like lipase (bacova_00914) from2 bacteroides ovatus atcc 8483 at 1.40 a resolution
7	c2w9xA			100.0	13	PDB header: hydrolase Chain: A: PDB Molecule: putative acetyl xylan esterase; PDBTitle: the active site of a carbohydrate esterase displays2 divergent3 catalytic and non-catalytic binding functions
8	c3hp4A			100.0	15	PDB header: hydrolase Chain: A: PDB Molecule: gdsl-esterase; PDBTitle: crystal structure of psychrotrophic esterase esta from2 pseudoalteromonas sp. 643a inhibited by monoethylphosphonate
9	c4jggB			100.0	23	PDB header: hydrolase Chain: B: PDB Molecule: esterase tesa; PDBTitle: crystal structure of tesa
10	c6iq8B			100.0	16	PDB header: hydrolase Chain: B: PDB Molecule: carboxylesterase; PDBTitle: esterase crme10 mutant-d178a
11	d1jrla			100.0	18	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: TAP-like

12	c2o14A	Alignment		100.0	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yxim; PDBTitle: x-ray crystal structure of protein yxim_bacsu from bacillus subtilis.2 northeast structural genomics consortium target sr595
13	c3rjtA	Alignment		100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: lipolytic protein g-d-s-l family; PDBTitle: crystal structure of lipolytic protein g-d-s-l family from2 alicyclobacillus acidocaldarius subsp. acidocaldarius dsm 446
14	c4h08A	Alignment		100.0	22	PDB header: hydrolase Chain: A: PDB Molecule: putative hydrolase; PDBTitle: crystal structure of a putative hydrolase (bt3161) from bacteroides2 thetaiotaomicron vpi-5482 at 1.80 a resolution
15	c4rw0B	Alignment		100.0	18	PDB header: hydrolase Chain: B: PDB Molecule: lipolytic protein g-d-s-l family; PDBTitle: crystal structure of a member of the lipolytic protein g-d-s-l family2 from veillonella parvula dsm 2008
16	d3dc7a1	Alignment		100.0	17	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: BT2961-like
17	c4rshB	Alignment		99.9	18	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: lipolytic protein g-d-s-l family; PDBTitle: structure of a putative lipolytic protein of g-d-s-l family from2 desulfobacterium hafniense dcb-2
18	c3dc7B	Alignment		99.9	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative uncharacterized protein lp_3232; PDBTitle: crystal structure of the protein q88sr8 from lactobacillus plantarum.2 northeast structural genomics consortium target lpr109.
19	c2vptA	Alignment		99.9	18	PDB header: hydrolase Chain: A: PDB Molecule: lipolytic enzyme; PDBTitle: clostridium thermocellum family 3 carbohydrate esterase
20	d1yzfa1	Alignment		99.9	21	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: TAP-like
21	c4nrda	Alignment	not modelled	99.9	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative gdsl-like lipase (bacova_04955) from2 bacteroides ovatus atcc 8483 at 2.10 a resolution
22	d1vjga	Alignment	not modelled	99.9	17	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Hypothetical protein alr1529
23	c4jhIA	Alignment	not modelled	99.9	19	PDB header: hydrolase Chain: A: PDB Molecule: acetyl xylan esterase; PDBTitle: crystal structure of of axe2, an acetylxyan esterase from geobacillus2 stearothermophilus
24	c5jd3A	Alignment	not modelled	99.9	20	PDB header: hydrolase Chain: A: PDB Molecule: lae5; PDBTitle: crystal structure of lae5, an alpha/beta hydrolase enzyme from the2 metagenome of lake arreo, spain
25	c4m8kA	Alignment	not modelled	99.9	18	PDB header: hydrolase Chain: A: PDB Molecule: hypothetical protein, gdsl-like lipase/acylhydrolase family PDBTitle: crystal structure of a putative gdsl-like lipase (bacuni_00748) from2 bacteroides uniformis atcc 8492 at 1.90 a resolution
26	c3milA	Alignment	not modelled	99.9	16	PDB header: hydrolase Chain: A: PDB Molecule: isoamyl acetate-hydrolyzing esterase; PDBTitle: crystal structure of isoamyl acetate-hydrolyzing esterase from2 saccharomyces cerevisiae
27	c4q7qA	Alignment	not modelled	99.9	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lipolytic protein g-d-s-l family; PDBTitle: the crystal structure of a possible lipase from chitinophaga pinensis2 dsm 2588
						PDB header: hydrolase Chain: A: PDB Molecule: uncharacterized protein;

28	c3bzwA	Alignment	not modelled	99.9	17	Chain: A: PDB Molecule: putative lipase; PDBTitle: crystal structure of a putative lipase from bacteroides thetaiotaomicron
29	d3bzwA1	Alignment	not modelled	99.9	17	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: BT2961-like
30	c3x0hA	Alignment	not modelled	99.9	15	PDB header: hydrolase Chain: A: PDB Molecule: carbohydrate esterase 1; PDBTitle: crystal structure of a carbohydrate esterase family 1 from talaromyces2 cellulolyticus
31	c5hoeB	Alignment	not modelled	99.9	20	PDB header: hydrolase Chain: B: PDB Molecule: hydrolase; PDBTitle: crystal structure of est24, a carbohydrate acylesterase from2 sinorhizobium meliloti
32	c4s1pA	Alignment	not modelled	99.9	23	PDB header: hydrolase Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: shel_16390 protein, a putative sgnh hydrolase from slackia2 heliotrinireducens
33	c4g9aA	Alignment	not modelled	99.9	13	PDB header: hydrolase Chain: A: PDB Molecule: tat pathway signal sequence domain protein; PDBTitle: crystal structure of a putative gdsl-like lipase (parmer_00689) from2 parabacteroides merdae atcc 43184 at 2.86 a resolution
34	c4iyjA	Alignment	not modelled	99.9	21	PDB header: hydrolase Chain: A: PDB Molecule: gdsl-like protein; PDBTitle: crystal structure of a putative acylhydrolase (bacuni_03406) from2 bacteroides uniformis atcc 8492 at 1.37 a resolution
35	c3p94A	Alignment	not modelled	99.9	18	PDB header: hydrolase Chain: A: PDB Molecule: gdsl-like lipase; PDBTitle: crystal structure of a gdsl-like lipase (bdi_0976) from2 parabacteroides distasonis atcc 8503 at 1.93 a resolution
36	d1k7ca	Alignment	not modelled	99.9	21	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Rhamnogalacturonan acylesterase
37	d2o14a2	Alignment	not modelled	99.9	14	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Yxim C-terminal domain-like
38	c6njcB	Alignment	not modelled	99.9	18	PDB header: hydrolase Chain: B: PDB Molecule: sialate o-acetylesterase; PDBTitle: crystal structure of the sialate o-acetylesterase from bacteroides2 vulgatus
39	c2q0qC	Alignment	not modelled	99.9	20	PDB header: hydrolase Chain: C: PDB Molecule: aryl esterase; PDBTitle: structure of the native m. smegmatis aryl esterase
40	c5malA	Alignment	not modelled	99.9	21	PDB header: hydrolase Chain: A: PDB Molecule: lipase; PDBTitle: crystal structure of extracellular lipase from streptomyces rimosus at2 1.7a resolution
41	c4tx1C	Alignment	not modelled	99.9	18	PDB header: hydrolase Chain: C: PDB Molecule: esterase; PDBTitle: the crystal structure of carbohydrate acylesterase family member2 from sinorhizobium meliloti
42	c3dc1B	Alignment	not modelled	99.9	19	PDB header: hydrolase Chain: B: PDB Molecule: arylesterase; PDBTitle: the structure of a putative arylesterase from agrobacterium2 tumefaciens str. c58
43	c4hyqA	Alignment	not modelled	99.9	21	PDB header: hydrolase Chain: A: PDB Molecule: phospholipase a1; PDBTitle: crystal structure of phospholipase a1 from streptomyces albidoflavus2 na297
44	d1es9a	Alignment	not modelled	99.9	18	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Acetylhydrolase
45	d1esca	Alignment	not modelled	99.9	24	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Esterase
46	c4k40B	Alignment	not modelled	99.9	20	PDB header: hydrolase Chain: B: PDB Molecule: gdsl-like lipase/acylhydrolase family protein; PDBTitle: peptidoglycan o-acetylersterase in action, 0 min
47	d1fxwf	Alignment	not modelled	99.9	15	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Acetylhydrolase
48	c4hf7A	Alignment	not modelled	99.9	17	PDB header: hydrolase Chain: A: PDB Molecule: putative acylhydrolase; PDBTitle: crystal structure of a gdsl-like lipase (bt0569) from bacteroides2 thetaiotaomicron vpi-5482 at 1.77 a resolution
49	c4c1bC	Alignment	not modelled	99.9	25	PDB header: hydrolase Chain: C: PDB Molecule: orf1-encoded protein; PDBTitle: esterase domain of the zfl2-1 orf1 protein from the zebrafish zfl2-12 retrotransposon
50	d2hsja1	Alignment	not modelled	99.9	13	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Acetylhydrolase
51	c5ufyA	Alignment	not modelled	99.9	15	PDB header: transferase Chain: A: PDB Molecule: acyltransferase; PDBTitle: structure of streptococcus pneumoniae peptidoglycan o-2 acetyltransferase a (oata) c-terminal catalytic domain
52	c5w78B	Alignment	not modelled	99.5	21	PDB header: hydrolase Chain: B: PDB Molecule: acyloxyacyl hydrolase; PDBTitle: human acyloxyacyl hydrolase (aoah), proteolytically processed
53	c6jl1A	Alignment	not modelled	99.4	20	PDB header: hydrolase Chain: A: PDB Molecule: thermolabile hemolysin; PDBTitle: crystal structure of vvplpa g389d from vibrio vulnificus

54	c5w7dA		Alignment	not modelled	99.3	20	PDB header: hydrolase Chain: A: PDB Molecule: acyloxyacyl hydrolase; PDBTitle: murine acyloxyacyl hydrolase (aoah), s262a mutant
55	c4i8iA		Alignment	not modelled	99.1	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a duf4886 family protein (bacuni_01406) from2 bacteroides uniformis atcc 8492 at 1.50 a resolution
56	c5xtuA		Alignment	not modelled	99.0	19	PDB header: hydrolase Chain: A: PDB Molecule: gdsl-family esterase; PDBTitle: crystal structure of gdsl esterase of photobacterium sp. j15
57	c3kvnA		Alignment	not modelled	97.8	22	PDB header: hydrolase Chain: A: PDB Molecule: esterase esta; PDBTitle: crystal structure of the full-length autotransporter esta from2 pseudomonas aeruginosa
58	d2apja1		Alignment	not modelled	97.7	15	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Putative acetylxylan esterase-like
59	c4gnlA		Alignment	not modelled	96.8	19	PDB header: hydrolase Chain: A: PDB Molecule: tail fiber protein; PDBTitle: crystal structure of tail fiber protein gp63.1 from e. coli phage g7c
60	c6pxfB		Alignment	not modelled	96.2	12	PDB header: transferase Chain: B: PDB Molecule: d-alanyl transferase dltd; PDBTitle: d-alanyl transferase dltd from enterococcus faecum
61	c6o93A		Alignment	not modelled	95.8	11	PDB header: transferase Chain: A: PDB Molecule: d-alanyl transferase dltd; PDBTitle: d-alanyl transferase dltd from enterococcus faecalis
62	c3bmaC		Alignment	not modelled	95.4	10	PDB header: ligase Chain: C: PDB Molecule: d-alanyl-lipoteichoic acid synthetase; PDBTitle: crystal structure of d-alanyl-lipoteichoic acid synthetase from2 streptococcus pneumoniae r6
63	c3nvbA		Alignment	not modelled	94.4	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of n-terminal part of the protein bf1531 from2 bacteroides fragilis containing phosphatase domain complexed with mg3 and tungstate
64	d1zmba1		Alignment	not modelled	93.9	9	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Putative acetylxylan esterase-like
65	c4o8vA		Alignment	not modelled	93.8	15	PDB header: transferase Chain: A: PDB Molecule: alginate biosynthesis protein algj; PDBTitle: o-acetyltransferase domain of pseudomonas putida algj
66	c5wb4H		Alignment	not modelled	90.8	4	PDB header: transferase Chain: H: PDB Molecule: n-acetylglucosaminylidiphosphoundecaprenol n-acetyl-beta-d-glycosyltransferase PDBTitle: crystal structure of the tara wall teichoic acid glycosyltransferase
67	c5v8eB		Alignment	not modelled	90.6	15	PDB header: unknown function Chain: B: PDB Molecule: bacillus cereus patb1; PDBTitle: structure of bacillus cereus patb1
68	c4kncA		Alignment	not modelled	83.3	12	PDB header: sugar binding protein Chain: A: PDB Molecule: alginate biosynthesis protein algx; PDBTitle: structural and functional characterization of pseudomonas aeruginosa2 algx
69	c6cciA		Alignment	not modelled	83.0	29	PDB header: transferase Chain: A: PDB Molecule: protein eskimo 1; PDBTitle: the crystal structure of xoat1
70	d1uuya		Alignment	not modelled	76.2	18	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
71	c2pjka		Alignment	not modelled	73.9	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 178aa long hypothetical molybdenum cofactor PDBTitle: structure of hypothetical molybdenum cofactor biosynthesis2 protein b from sulfolobus tokodaii
72	c3pt5A		Alignment	not modelled	68.7	13	PDB header: hydrolase Chain: A: PDB Molecule: nans (yjhs), a 9-o-acetyl n-acetylneuraminiic acid esterase; PDBTitle: crystal structure of nans
73	c5a4aA		Alignment	not modelled	66.8	13	PDB header: rna binding protein Chain: A: PDB Molecule: maternal effect protein oskar; PDBTitle: crystal structure of the osk domain of drosophila oskar
74	c2is8A		Alignment	not modelled	62.1	19	PDB header: structural protein Chain: A: PDB Molecule: molybdopterin biosynthesis enzyme, moab; PDBTitle: crystal structure of the molybdopterin biosynthesis enzyme moab2 (ttha0341) from thermus theromophilus hb8
75	c4axnB		Alignment	not modelled	52.7	6	PDB header: hydrolase Chain: B: PDB Molecule: chitinase c1; PDBTitle: hallmarks of processive and non-processive glycoside hydrolases2 revealed from computational and crystallographic studies of the3 serratia marcescens chitinases
76	c2g4rB		Alignment	not modelled	50.3	16	PDB header: biosynthetic protein Chain: B: PDB Molecule: molybdopterin biosynthesis mog protein; PDBTitle: anomalous substructure of moga
77	d1mkza		Alignment	not modelled	50.3	18	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
78	c3menC		Alignment	not modelled	45.9	7	PDB header: hydrolase Chain: C: PDB Molecule: acetylpolyamine aminohydrolase; PDBTitle: crystal structure of acetylpolyamine aminohydrolase from burkholderia2 pseudomallei, iodide soak
							PDB header: transcription

79	c3qi7A_	Alignment	not modelled	43.5	11	Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of a putative transcriptional regulator2 (yp_001089212.1) from clostridium difficile 630 at 1.86 a resolution PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein af1437; PDBTitle: structure of gene product af1437 from archaeoglobus fulgidus
80	c1y8aA_	Alignment	not modelled	40.5	29	PDB header: hydrolase Chain: A: PDB Molecule: beta-xylosidase; PDBTitle: the structure of hypocre a jecorina beta-xylosidase xyl3a (bxl1)
81	c5a7mA_	Alignment	not modelled	37.7	14	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
82	d2csua1	Alignment	not modelled	37.3	16	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
83	d2f7wa1	Alignment	not modelled	36.2	17	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
84	d1y5ea1	Alignment	not modelled	35.8	22	PDB header: biosynthetic protein Chain: C: PDB Molecule: pterin-4-alpha-carbinolamine dehydratase moab2; PDBTitle: crystal structure of pterin-4-alpha-carbinolamine dehydratase moab22 from mycobacterium marinum
85	c3rfqC_	Alignment	not modelled	33.8	24	PDB header: hydrolase Chain: F: PDB Molecule: acetylpolyamine amidohydrolase; PDBTitle: crystal structure of h159a apah complexed with n8-acetylsperridine
86	c3g9cF_	Alignment	not modelled	32.4	11	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
87	d1jlja_	Alignment	not modelled	32.2	22	PDB header: hydrolase Chain: B: PDB Molecule: exo-1,4-beta-xylosidase xlnd; PDBTitle: gh3 exo-beta-xylosidase (xlnd) in complex with xylobiose aziridine2 activity based probe
88	c6q7jB_	Alignment	not modelled	27.1	16	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
89	d2g2ca1	Alignment	not modelled	26.5	17	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: crystal structure of rice alpha-galactosidase
90	cluasA_	Alignment	not modelled	25.4	10	PDB header: structural protein Chain: A: PDB Molecule: molybdenum cofactor biosynthesis mog; PDBTitle: crystal structure of molybdenum cofactor biosynthesis2 (aq_061) other form from aquifex aeolicus vf5
91	c2qq1A_	Alignment	not modelled	24.8	17	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
92	d1a9xa3	Alignment	not modelled	24.3	9	PDB header: isomerase Chain: A: PDB Molecule: coenzyme b12-dependent mutase; PDBTitle: crystal structure of the methylmalonyl-coa mutase alpha-subunit from2 aeropyrum pernix
93	c2yxba_	Alignment	not modelled	22.6	24	PDB header: isomerase Chain: D: PDB Molecule: 2-hydroxyisobutyryl-coa mutase small subunit; PDBTitle: crystal structure of 2-hydroxyisobutyryl-coa mutase
94	c4r3uD_	Alignment	not modelled	19.8	21	PDB header: endocytosis Chain: A: PDB Molecule: rab5a; PDBTitle: solution structure of truncated rab5a from leishmania donovani
95	c5yoza_	Alignment	not modelled	19.4	14	PDB header: oxidoreductase (choh(d)-nad+(a)) Chain: A: PDB Molecule: l-2-hydroxisocaprate dehydrogenase; PDBTitle: crystal structure of l-2-hydroxisocaprate dehydrogenase from2 lactobacillus confusus at 2.2 angstroms resolution-an example of3 strong asymmetry between subunits
96	c1hyha_	Alignment	not modelled	18.9	14	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Type II chitinase
97	d1ledta_	Alignment	not modelled	18.4	10	PDB header: ligase Chain: A: PDB Molecule: alpha subunit of acetyl-coenzyme a synthetase PDBTitle: ca. korarchaeum cryptofilum dinucleotide forming acetyl-coenzyme a2 synthetase 1 (apo form)
98	c4yajA_	Alignment	not modelled	17.3	15	PDB header: hydrolase Chain: D: PDB Molecule: putative beta-glucosidase; PDBTitle: crystal structure of bifidobacterium adolescentis gh3 beta-glucosidase
99	c5swabD_	Alignment	not modelled	16.6	14	