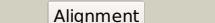
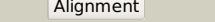
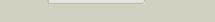
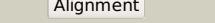
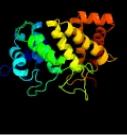


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD0365c_(-)_443068_444198
Date	Tue Jul 23 14:50:43 BST 2019
Unique Job ID	9d79dcec81a6c92b

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3k7xA_			100.0	28	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0763 protein; PDBTitle: crystal structure of the lin0763 protein from listeria innocua.2 northeast structural genomics consortium target lkr23.
2	c4c1sA_			100.0	17	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase family 76 mannosidase; PDBTitle: glycoside hydrolase family 76 (mannosidase) bt3792 from2 bacteroides thetaiotaomicron vpi-5482
3	c4bojC_			100.0	21	PDB header: hydrolase Chain: C: PDB Molecule: alpha-1,6-mannanase; PDBTitle: crystal structure of bacillus circulans tn-31 aman6 in2 complex with mannobiose
4	c4mu9B_			100.0	20	PDB header: hydrolase Chain: B: PDB Molecule: glycoside hydrolase family 73; PDBTitle: crystal structure of a putative glycosylhydrolase (bt_3782) from2 bacteroides thetaiotaomicron vpi-5482 at 1.89 a resolution
5	c4v1sA_			100.0	15	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,6-mannanase; PDBTitle: structure of the gh76 alpha-mannanase bt2949 from2 bacteroides thetaiotaomicron
6	d2d5ja1			99.9	18	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88
7	c2zrzA_			99.9	13	PDB header: hydrolase Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae
8	c3wiwA_			99.9	15	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase family 88; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase specific for2 heparin
9	c4ce7B_			99.8	13	PDB header: hydrolase Chain: B: PDB Molecule: unsaturated 3s-rhamnoglycuronyl hydrolase; PDBTitle: crystal structure of a novel unsaturated beta-glucuronyl2 hydrolase enzyme, belonging to family gh105, involved in3 ulvan degradation
10	c4xuvB_			99.8	11	PDB header: hydrolase Chain: B: PDB Molecule: glycoside hydrolase family 105 protein; PDBTitle: crystal structure of a glycoside hydrolase family 105 (gh105) enzyme2 from thielavia terrestris
11	c5zhbB_			99.6	14	PDB header: isomerase Chain: B: PDB Molecule: cellobiose 2-epimerase; PDBTitle: structure of cellobiose 2-epimerase from bacillus thermoamylorovans2 b4167

12	d1nc5a	Alignment		99.6	9	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR
13	c5x32B	Alignment		99.6	13	PDB header: isomerase Chain: B: PDB Molecule: n-acylglucosamine 2-epimerase; PDBTitle: crystal structure of d-mannose isomerase
14	c3gt5A	Alignment		99.6	13	PDB header: isomerase Chain: A: PDB Molecule: n-acetylglucosamine 2-epimerase; PDBTitle: crystal structure of an n-acetylglucosamine 2-epimerase family protein2 from xylella fastidiosa
15	c3wkgA	Alignment		99.6	15	PDB header: isomerase Chain: A: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase in complex with2 glucosylmannose
16	c4wu0B	Alignment		99.5	10	PDB header: hydrolase Chain: B: PDB Molecule: similar to yter (bacillus subtilis); PDBTitle: structural analysis of c. acetobutylicum atcc 824 glycoside hydrolase2 from family 105
17	c5zigD	Alignment		99.5	15	PDB header: isomerase Chain: D: PDB Molecule: cellobiose 2-epimerase; PDBTitle: the structure of cellobiose 2-epimerase from spirochaeta thermophila2 dsm 6192
18	c4z41A	Alignment		99.5	13	PDB header: isomerase Chain: A: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase from caldicellulosiruptor2 saccharolyticus dsm 8903
19	c5noaA	Alignment		99.5	15	PDB header: hydrolase Chain: A: PDB Molecule: family 88 glycosyl hydrolase; PDBTitle: polysaccharide lyase baccell_00875
20	c3vw5B	Alignment		99.4	13	PDB header: isomerase Chain: B: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of sugar epimerase from ruminal bacterium
21	c3pmma	Alignment	not modelled	99.4	14	PDB header: hydrolase Chain: A: PDB Molecule: putative cytoplasmic protein; PDBTitle: the crystal structure of a possible member of gh105 family from2 klebsiella pneumoniae subsp. pneumoniae mgh 78578
22	c2gz6B	Alignment	not modelled	99.2	9	PDB header: isomerase Chain: B: PDB Molecule: n-acetyl-d-glucosamine 2-epimerase; PDBTitle: crystal structure of anabaena sp. ch1 n-acetyl-d-glucosamine 2-2 epimerase at 2.0 a
23	c3k11A	Alignment	not modelled	98.9	14	PDB header: hydrolase Chain: A: PDB Molecule: putative glycosyl hydrolase; PDBTitle: crystal structure of putative glycosyl hydrolase (np_813087.1) from2 bacteroides thetaiotaomicron vpi-5482 at 1.80 a resolution
24	c3wka	Alignment	not modelled	98.8	11	PDB header: hydrolase Chain: A: PDB Molecule: non-reducing end beta-l-arabinofuranosidase; PDBTitle: crystal structure of gh127 beta-l-arabinofuranosidase hypba1 from2 bifidobacterium longum arabinose complex form
25	c4qk0C	Alignment	not modelled	98.8	10	PDB header: hydrolase Chain: C: PDB Molecule: gh127 beta-l-arabinofuranoside; PDBTitle: crystal structure of ara127n-se, a gh127 beta-l-arabinofuranosidase2 from geobacillus stearothermophilus t6
26	c5mqoA	Alignment	not modelled	98.8	13	PDB header: hydrolase Chain: A: PDB Molecule: non-reducing end beta-l-arabinofuranosidase; PDBTitle: glycoside hydrolase bt_1003
27	c6ex6A	Alignment	not modelled	98.8	13	PDB header: hydrolase Chain: A: PDB Molecule: six-hairpin glycosidase; PDBTitle: the gh127, beta-arabinofuranosidase, bt3674
28	c5opjA	Alignment	not modelled	98.6	14	PDB header: oxidoreductase Chain: A: PDB Molecule: rhamnogalacturonan lyase;

					PDBTitle: rhamnogalacturonan lyase
29	d2afaa1	Alignment	not modelled	98.6	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
30	d1fp3a	Alignment	not modelled	98.4	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
31	c3h7IC	Alignment	not modelled	97.4	PDB header: hydrolase Chain: C: PDB Molecule: endoglucanase; PDBTitle: crystal structure of endoglucanase-related protein from vibrio2 parahaemolyticus
32	c1ga2A	Alignment	not modelled	97.2	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase 9g; PDBTitle: the crystal structure of endoglucanase 9g from clostridium2 cellulolyticum complexed with cellobiose
33	c4pw2A	Alignment	not modelled	97.2	PDB header: isomerase Chain: A: PDB Molecule: d-glucuronyl c5 epimerase b; PDBTitle: crystal structure of d-glucuronyl c5 epimerase
34	d1g87a1	Alignment	not modelled	97.2	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
35	c5dgrB	Alignment	not modelled	97.0	PDB header: hydrolase Chain: B: PDB Molecule: putative endoglucanase-related protein; PDBTitle: crystal structure of gh9 exo-beta-d-glucosaminidase pbpra0520_2 glucosamine complex
36	c6gdtC	Alignment	not modelled	96.9	PDB header: carbohydrate Chain: C: PDB Molecule: endoglucanase-related protein; PDBTitle: crystal structure of exo-glucosidase/glucosaminidase vc0615 from2 vibrio cholerae
37	c2xfgA	Alignment	not modelled	96.9	PDB header: hydrolase/sugar binding protein Chain: A: PDB Molecule: endoglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
38	c2yikA	Alignment	not modelled	96.9	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: catalytic domain of clostridium thermocellum celt
39	d1clca1	Alignment	not modelled	96.8	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
40	c5u2oA	Alignment	not modelled	96.7	PDB header: hydrolase Chain: A: PDB Molecule: j30 cch; PDBTitle: crystal structure of zn-binding triple mutant of gh family 92 endoglucanase j30
41	c4q88B	Alignment	not modelled	96.6	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: glycosyl hydrolase family 88 from bacteroides vulgatus
42	c5gxyA	Alignment	not modelled	96.5	PDB header: hydrolase Chain: A: PDB Molecule: glucanase; PDBTitle: crystal structure of endoglucanase celq from clostridium thermocellum2 complexed with cellobiose and tris
43	c1ut9A	Alignment	not modelled	96.5	PDB header: hydrolase Chain: A: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: structural basis for the exocellulase activity of the2 cellobiohydrolase cbha from c. thermocellum
44	c3gzkA	Alignment	not modelled	96.4	PDB header: hydrolase Chain: A: PDB Molecule: cellulase; PDBTitle: structure of a. acidocaldarius cellulase cela
45	c1clcA	Alignment	not modelled	96.4	PDB header: glycosyl hydrolase Chain: A: PDB Molecule: endoglucanase celd; ec: 3.2.1.4; PDBTitle: three-dimensional structure of endoglucanase d at 1.92 angstroms resolution
46	c3x17B	Alignment	not modelled	96.4	PDB header: hydrolase Chain: B: PDB Molecule: endoglucanase; PDBTitle: crystal structure of metagenome-derived glycoside hydrolase family 92 endoglucanase
47	d1ks8a	Alignment	not modelled	96.3	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
48	d1ia6a	Alignment	not modelled	96.0	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
49	c6dhtA	Alignment	not modelled	95.6	PDB header: hydrolase Chain: A: PDB Molecule: xyloglucan-specific endo-beta-1,4-glucanase bogh9a; PDBTitle: bacteroides ovatus gh9 bacova_02649
50	c3wc3A	Alignment	not modelled	95.3	PDB header: hydrolase Chain: A: PDB Molecule: endo-1, 4-beta-glucanase; PDBTitle: crystal structure of endo-1,4-beta-glucanase from eisenia fetida
51	d1tf4a1	Alignment	not modelled	95.2	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
52	d1dl2a	Alignment	not modelled	95.1	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain
53	c5a29A	Alignment	not modelled	94.7	PDB header: lyase Chain: A: PDB Molecule: exopolysaccharide lyase; PDBTitle: family 2 pectate lyase from vibrio vulnificus
54	c1g6iA	Alignment	not modelled	94.5	PDB header: hydrolase Chain: A: PDB Molecule: class i alpha-1,2-mannosidase; PDBTitle: crystal structure of the yeast alpha-1,2-mannosidase with bound 1-2 deoxymannojirimycin at 1.59 a resolution

55	d1ut9a1		Alignment	not modelled	93.9	11	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
56	d1nxca_		Alignment	not modelled	93.9	14	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
57	c6fhnA_		Alignment	not modelled	93.7	16	PDB header: hydrolase Chain: A: PDB Molecule: protein; PDBTitle: structural dynamics and catalytic properties of a multi-modular2 xanthanase (pt derivative)
58	c2v8kA_		Alignment	not modelled	93.2	18	PDB header: lyase Chain: A: PDB Molecule: pectate lyase; PDBTitle: structure of a family 2 pectate lyase in complex with trigalacturonic acid
59	c3a0oB_		Alignment	not modelled	92.9	11	PDB header: lyase Chain: B: PDB Molecule: oligo alginate lyase; PDBTitle: crystal structure of alginate lyase from agrobacterium tumefaciens c58
60	c1x9dA_		Alignment	not modelled	92.7	16	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannose-oligosaccharide 1,2-alpha- PDBTitle: crystal structure of human class i alpha-1,2-mannosidase in complex2 with thio-disaccharide substrate analogue
61	d1x9da1		Alignment	not modelled	92.7	16	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
62	c4zlgA_		Alignment	not modelled	89.0	11	PDB header: transferase Chain: A: PDB Molecule: putative b-glycan phosphorylase; PDBTitle: cellobionic acid phosphorylase - gluconic acid complex
63	d1kwfa_		Alignment	not modelled	88.3	14	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
64	c1js4B_		Alignment	not modelled	83.9	10	PDB header: glycosyl hydrolase Chain: B: PDB Molecule: endo/exocellulase e4; PDBTitle: endo/exocellulase:cellobiose from thermomonospora
65	d1wzz1		Alignment	not modelled	83.7	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
66	d1hcua_		Alignment	not modelled	83.3	13	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
67	c2fugA_		Alignment	not modelled	81.8	8	PDB header: sugar binding protein Chain: A: PDB Molecule: heparinase ii protein; PDBTitle: crystal structure of heparinase ii
68	c1v7wA_		Alignment	not modelled	78.9	15	PDB header: transferase Chain: A: PDB Molecule: chitobiose phosphorylase; PDBTitle: crystal structure of vibrio proteolyticus chitobiose phosphorylase in2 complex with glcnac
69	c4ayqA_		Alignment	not modelled	77.9	13	PDB header: hydrolase Chain: A: PDB Molecule: mannosyl-oligosaccharide 1,2-alpha-mannosidase; PDBTitle: structure of the gh47 processing alpha-1,2-mannosidase from2 caulobacter strain k31 in complex with mannoimidazole
70	c5czIA_		Alignment	not modelled	76.3	12	PDB header: hydrolase Chain: A: PDB Molecule: glucanase; PDBTitle: crystal structure of a novel gh8 endo-beta-1,4-glucanase from an2 achatinula gut metagenomic library
71	c3cihA_		Alignment	not modelled	75.6	13	PDB header: hydrolase Chain: A: PDB Molecule: putative alpha-rhamnosidase; PDBTitle: crystal structure of a putative alpha-rhamnosidase from2 bacteroides thetaiotaomicron
72	c6fhjA_		Alignment	not modelled	71.1	16	PDB header: hydrolase Chain: A: PDB Molecule: protein,protein; PDBTitle: structural dynamics and catalytic properties of a multi-modular2 xanthanase, native.
73	c3qxqD_		Alignment	not modelled	68.2	26	PDB header: hydrolase Chain: D: PDB Molecule: endoglucanase; PDBTitle: structure of the bacterial cellulose synthase subunit z in complex2 with cellopentaose
74	c1krfA_		Alignment	not modelled	63.1	16	PDB header: hydrolase Chain: A: PDB Molecule: mannosyl-oligosaccharide alpha-1,2-mannosidase; PDBTitle: structure of p. citrinum alpha 1,2-mannosidase reveals the basis for2 differences in specificity of the er and golgi class i enzymes
75	d2ri9a1		Alignment	not modelled	63.1	16	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
76	c3renB_		Alignment	not modelled	58.1	11	PDB header: hydrolase Chain: B: PDB Molecule: glycosyl hydrolase, family 8; PDBTitle: cpf_2247, a novel alpha-amylase from clostridium perfringens
77	c4xhcB_		Alignment	not modelled	56.6	16	PDB header: hydrolase Chain: B: PDB Molecule: alpha-l-rhamnosidase; PDBTitle: rhamnosidase from klebsiella oxytoca with rhamnose bound
78	c2cqta_		Alignment	not modelled	52.7	17	PDB header: transferase Chain: A: PDB Molecule: cellobiose phosphorylase; PDBTitle: crystal structure of cellvibrio gilvus cellobiose phosphorylase2 crystallized from sodium/potassium phosphate
79	c3e6uA_		Alignment	not modelled	45.1	11	PDB header: signaling protein Chain: A: PDB Molecule: lanc-like protein 1; PDBTitle: crystal structure of human lanc1
80	c4ok2A_		Alignment	not modelled	45.1	10	PDB header: lyase Chain: A: PDB Molecule: putative alginate lyase;

						PDBTitle: crystal structure of alg17c mutant y258a
81	c5dztA_	Alignment	not modelled	44.6	15	PDB header: transferase Chain: A: PDB Molecule: cylm; PDBTitle: crystal structure of class ii lanthipeptide synthetase cylm in complex2 with amp
82	c3htuE_	Alignment	not modelled	37.7	11	PDB header: protein transport Chain: E: PDB Molecule: vacuolar protein-sorting-associated protein 25; PDBTitle: crystal structure of the human vps25-vps20 subcomplex
83	c5mqrA_	Alignment	not modelled	37.4	13	PDB header: hydrolase Chain: A: PDB Molecule: beta-l-arabinobiosidase; PDBTitle: sialidase bt_1020
84	c5x3aB_	Alignment	not modelled	35.9	14	PDB header: hydrolase Chain: B: PDB Molecule: glucanase; PDBTitle: apo structure of beta-1,3-1,4-glucanase from paenibacillus sp.x4
85	c4fnvA_	Alignment	not modelled	32.8	8	PDB header: lyase Chain: A: PDB Molecule: heparinase iii protein, heparitin sulfate lyase; PDBTitle: crystal structure of heparinase iii
86	d1ulva1	Alignment	not modelled	32.8	13	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Bacterial glucoamylase C-terminal domain-like
87	c5no8A_	Alignment	not modelled	30.8	15	PDB header: lyase Chain: A: PDB Molecule: bacell_00875; PDBTitle: polysaccharide lyase bacell_00875
88	d1v5da_	Alignment	not modelled	30.3	12	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
89	c3t33A_	Alignment	not modelled	28.6	12	PDB header: signaling protein receptor Chain: A: PDB Molecule: g protein coupled receptor; PDBTitle: crystal structure of arabidopsis gcr2
90	c4q2bA_	Alignment	not modelled	19.3	20	PDB header: hydrolase Chain: A: PDB Molecule: endo-1,4-beta-d-glucanase; PDBTitle: the crystal structure of an endo-1,4-d-glucanase from pseudomonas2 putida kt2440
91	c3nfvA_	Alignment	not modelled	18.8	11	PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of an alginate lyase (bacova_01668) from bacteroides2 ovatus at 1.95 a resolution
92	c5cd2A_	Alignment	not modelled	18.5	18	PDB header: hydrolase Chain: A: PDB Molecule: endo-1,4-d-glucanase; PDBTitle: the crystal structure of endo-1,4-d-glucanase from vibrio fischeri2 es114
93	c2okxB_	Alignment	not modelled	18.4	11	PDB header: hydrolase Chain: B: PDB Molecule: ramnosidase b; PDBTitle: crystal structure of gh78 family rhamnosidase of bacillus sp. gl1 at2 1.9 a
94	c1xb4C_	Alignment	not modelled	16.4	8	PDB header: unknown function Chain: C: PDB Molecule: hypothetical 23.6 kda protein in yuh1-ura8 intergenic PDBTitle: crystal structure of subunit vps25 of the endosomal trafficking2 complex escrt-ii
95	d1xb4a2	Alignment	not modelled	15.1	6	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
96	d2g0da1	Alignment	not modelled	14.5	9	Fold: alpha/alpha toroid Superfamily: LanC-like Family: LanC-like
97	c6m9sC_	Alignment	not modelled	14.3	13	PDB header: oxidoreductase Chain: C: PDB Molecule: sznf; PDBTitle: crystal structure of semet sznf from streptomyces achromogenes var.2 streptozotocinus nrrl 2697
98	d1v7wa1	Alignment	not modelled	13.8	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyltransferase family 36 C-terminal domain
99	d1vjja4	Alignment	not modelled	13.6	21	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Transglutaminase core