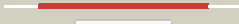



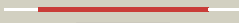




















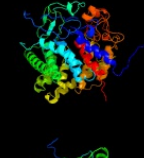
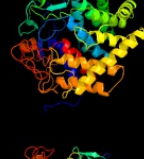
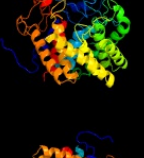

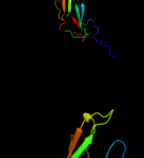
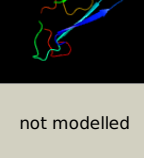


Phyre2

Email: siddhartha_kundu@yahoo.co.in
 Description: Q8LJP6__
 Date: Thu Feb 1 11:12:10 GMT 2018
 Unique Job ID: b166f14fde6eb22a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1js4B_	 Alignment		100.0	37	PDB header: glycosyl hydrolase Chain: B; PDB Molecule: endo/exocellulase e4; PDBTitle: endo/exocellulase:cellobiose from thermomonospora
2	c1ga2A_	 Alignment		100.0	34	PDB header: hydrolase Chain: A; PDB Molecule: endoglucanase 9g; PDBTitle: the crystal structure of endoglucanase 9g from clostridium2 cellulolyticum complexed with cellobiose
3	c5gxyA_	 Alignment		100.0	32	PDB header: hydrolase Chain: A; PDB Molecule: glucanase; PDBTitle: crystal structure of endoglucanase celq from clostridium thermocellum2 complexed with cellobiose and tris
4	d1g87a1	 Alignment		100.0	37	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
5	d1tf4a1	 Alignment		100.0	42	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
6	c2yikA_	 Alignment		100.0	31	PDB header: hydrolase Chain: A; PDB Molecule: endoglucanase; PDBTitle: catalytic domain of clostridium thermocellum celt
7	c2xfgA_	 Alignment		100.0	40	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
8	c3wc3A_	 Alignment		100.0	43	PDB header: hydrolase Chain: A; PDB Molecule: endo-1, 4-beta-glucanase; PDBTitle: crystal structure of endo-1,4-beta-glucanase from eisenia fetida
9	d1ia6a_	 Alignment		100.0	36	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
10	d1ks8a_	 Alignment		100.0	48	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
11	d1ut9a1	 Alignment		100.0	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain

12	c1clcA_	Alignment		100.0	19	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
13	d1clca1	Alignment		100.0	20	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
14	c1ut9A_	Alignment		100.0	20	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
15	c3gzkA_	Alignment		100.0	20	PDB header: hydrolase Chain: A; PDB Molecule: cellulase; PDBTitle: structure of a. acidocaldarius cellulase celsa
16	c3x17B_	Alignment		100.0	21	PDB header: hydrolase Chain: B; PDB Molecule: endoglucanase; PDBTitle: crystal structure of metagenome-derived glycoside hydrolase family 92 endoglucanase
17	c5dgrB_	Alignment		100.0	15	PDB header: hydrolase Chain: B; PDB Molecule: putative endoglucanase-related protein; PDBTitle: crystal structure of gh9 exo-beta-d-glucosaminidase pbpra0520,2 glucosamine complex
18	c3h7IC_	Alignment		100.0	17	PDB header: hydrolase Chain: C; PDB Molecule: endoglucanase; PDBTitle: crystal structure of endoglucanase-related protein from vibrio2 parahaemolyticus
19	c2xfgB_	Alignment		99.6	13	PDB header: hydrolase/sugar binding protein Chain: B; PDB Molecule: endoglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
20	d1tf4a2	Alignment		99.2	14	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
21	d1g87a2	Alignment	not modelled	99.1	17	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
22	c4v1sA_	Alignment	not modelled	98.9	10	PDB header: hydrolase Chain: A; PDB Molecule: alpha-1,6-mannanase; PDBTitle: structure of the gh76 alpha-mannanase bt2949 from2 bacteroides thetaiotaomicron
23	c4z4IA_	Alignment	not modelled	98.4	11	PDB header: isomerase Chain: A; PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase from caldicellulosiruptor2 saccharolyticus dsm 8903
24	c4c1sA_	Alignment	not modelled	98.4	15	PDB header: hydrolase Chain: A; PDB Molecule: glycoside hydrolase family 76 mannosidase; PDBTitle: glycoside hydrolase family 76 (mannosidase) bt3792 from2 bacteroides thetaiotaomicron vpi-5482
25	c3wkgA_	Alignment	not modelled	98.4	12	PDB header: isomerase Chain: A; PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase in complex with2 glucosylmannose
26	c3vw5B_	Alignment	not modelled	98.3	17	PDB header: isomerase Chain: B; PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of sugar epimerase from ruminal bacterium
27	c3k7xA_	Alignment	not modelled	98.2	14	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.
28	c4qk0C_	Alignment	not modelled	98.0	13	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 PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase, family 9; PDBTitle: 3b' carbohydrate-binding module from the cel9v glycoside2 hydrolase from clostridium thermocellum, in-house data
29	c2wo4A_	Alignment	not modelled	97.8	12	PDB header: hydrolase Chain: A: PDB Molecule: non-reducing end beta-l-arabinofuranosidase; PDBTitle: glycoside hydrolase bt_1003
30	c5mqoA_	Alignment	not modelled	97.8	13	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III PDB header: hydrolase Chain: C: PDB Molecule: alpha-1,6-mannanase; PDBTitle: crystal structure of bacillus circulans tn-31 aman6 in2 complex with mannobiose
31	d1nbca_	Alignment	not modelled	97.7	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
32	c4bojC_	Alignment	not modelled	97.6	17	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing module from putative rsgi2 protein of2 clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
33	c4mu9B_	Alignment	not modelled	97.6	11	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
34	c4b9pA_	Alignment	not modelled	97.5	14	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II 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
35	c3gt5A_	Alignment	not modelled	97.5	15	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of a scaffoldin carbohydrate-binding module family 3b from2 the cellulosome of bacteroides cellulosolvens: structural diversity3 and implications for carbohydrate binding
36	d1lexha_	Alignment	not modelled	97.5	14	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
37	d1g43a_	Alignment	not modelled	97.4	16	PDB header: hydrolase Chain: A: PDB Molecule: chic; PDBTitle: solution structure of the chitin-binding domain of chi18ac from2 streptomyces coelicolor
38	c3wkxA_	Alignment	not modelled	97.4	16	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: structure of a novel cbm3 lacking the calcium-binding site
39	c2xbtA_	Alignment	not modelled	97.3	13	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of cbm3b of major scaffoldin subunit scaa from2 acetivibrio cellulolyticus
40	c4b97A_	Alignment	not modelled	97.2	13	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: family 3b carbohydrate-binding module from the biomass2 sensing system of clostridium clariflavum
41	c2rttA_	Alignment	not modelled	97.2	14	PDB header: hydrolase Chain: D: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: carbohydrate-binding module cbm3b from the cellulosomal2 cellobiohydrolase 9a from clostridium thermocellum
42	c2l8aA_	Alignment	not modelled	97.2	14	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
43	c3zqwA_	Alignment	not modelled	97.1	13	PDB header: hydrolase Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans
44	c4b96A_	Alignment	not modelled	96.7	13	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
45	c2ylkD_	Alignment	not modelled	96.6	9	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
46	c2gz6B_	Alignment	not modelled	96.6	9	PDB header: hydrolase Chain: B: PDB Molecule: similar to yter (bacilus subtilis); PDBTitle: structural analysis of c. acetobutylicum atcc 824 glycoside hydrolase2 from family 105
47	c3ndyG_	Alignment	not modelled	96.6	8	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase family 88; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase specific for2 heparin
48	c4b9cA_	Alignment	not modelled	96.6	9	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
49	c4xuvB_	Alignment	not modelled	96.5	12	
50	c4wu0B_	Alignment	not modelled	96.3	12	
51	c3wiwA_	Alignment	not modelled	96.2	9	
52	d2afaa1	Alignment	not modelled	96.2	10	

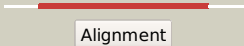

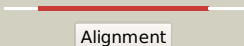

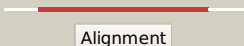







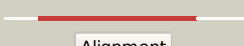









53	c5no8A	Alignment	not modelled	95.6	15	PDB header: lyase Chain: A: PDB Molecule: baccell_00875; PDBTitle: polysaccharide lyase baccell_00875
54	c2zzrA	Alignment	not modelled	95.0	16	PDB header: hydrolase Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae
55	c5noaA	Alignment	not modelled	94.5	8	PDB header: hydrolase Chain: A: PDB Molecule: family 88 glycosyl hydrolase; PDBTitle: polysaccharide lyase baccell_00875
56	c2cwrA	Alignment	not modelled	94.2	7	PDB header: hydrolase Chain: A: PDB Molecule: chitinase; PDBTitle: crystal structure of chitin biding domain of chitinase from2 pyrococcus furiosus
57	c5dhdA	Alignment	not modelled	94.2	13	PDB header: hydrolase Chain: A: PDB Molecule: chitinase; PDBTitle: crystal structure of chbd2 from thermococcus kodakarensis kod1
58	d1nc5a	Alignment	not modelled	93.8	7	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR
59	d1gxma	Alignment	not modelled	93.8	18	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
60	d1fp3a	Alignment	not modelled	93.7	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acetylglucosamine (NAG) epimerase
61	c3e6uA	Alignment	not modelled	93.7	22	PDB header: signaling protein Chain: A: PDB Molecule: lanc-like protein 1; PDBTitle: crystal structure of human lanc1
62	c3k11A	Alignment	not modelled	92.2	11	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
63	c4q88B	Alignment	not modelled	88.2	7	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: glycosyl hydrolase family 88 from bacteroides vulgatus
64	c3pmmA	Alignment	not modelled	86.1	13	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
65	d2d5ja1	Alignment	not modelled	85.9	12	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88
66	c4ce7B	Alignment	not modelled	85.5	11	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
67	c5a29A	Alignment	not modelled	84.4	24	PDB header: lyase Chain: A: PDB Molecule: exopolysaccharide lyase; PDBTitle: family 2 pectate lyase from vibrio vulnificus
68	d2ri9a1	Alignment	not modelled	81.0	10	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
69	c1krfA	Alignment	not modelled	79.9	10	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
70	c3icgD	Alignment	not modelled	77.4	11	PDB header: hydrolase Chain: D: PDB Molecule: endoglucanase d; PDBTitle: crystal structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans
71	d1qaza	Alignment	not modelled	74.5	12	Fold: alpha/alpha toroid Superfamily: Chondroitin AC/alginate lyase Family: Alginate lyase A1-III
72	d1hcua	Alignment	not modelled	73.5	10	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
73	d1nxca	Alignment	not modelled	73.0	5	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
74	c1x9dA	Alignment	not modelled	72.6	13	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannosyl-oligosaccharide 1,2-alpha- PDBTitle: crystal structure of human class i alpha-1,2-mannosidase in complex2 with thio-disaccharide substrate analogue
75	d1x9da1	Alignment	not modelled	72.6	13	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
76	c4aygA	Alignment	not modelled	66.6	18	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
77	c2v8kA	Alignment	not modelled	65.5	21	PDB header: lyase Chain: A: PDB Molecule: pectate lyase; PDBTitle: structure of a family 2 pectate lyase in complex with2 trigalacturonic acid

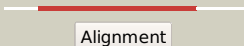



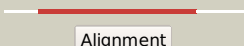



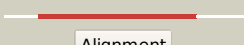

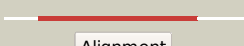




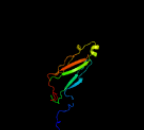


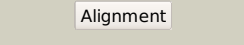
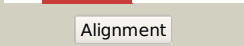
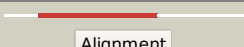

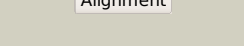

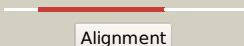
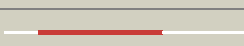
78	d1r76a_	Alignment	not modelled	63.5	14	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
79	d1dl2a_	Alignment	not modelled	57.7	15	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
80	c1g6iA_	Alignment	not modelled	57.5	15	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
81	c2kmgA_	Alignment	not modelled	55.7	20	PDB header: gene regulation Chain: A: PDB Molecule: klca; PDBTitle: the structure of the klca and ardb proteins show a novel2 fold and antirestriction activity against type i dna3 restriction systems in vivo but not in vitro
82	c2fuqA_	Alignment	not modelled	55.0	5	PDB header: sugar binding protein Chain: A: PDB Molecule: heparinase ii protein; PDBTitle: crystal structure of heparinase ii
83	c3nfvA_	Alignment	not modelled	53.3	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
84	c5bp8A_	Alignment	not modelled	47.8	12	PDB header: isomerase Chain: A: PDB Molecule: ent-copalyl diphosphate synthase; PDBTitle: ent-copalyl diphosphate synthase from streptomyces platensis
85	c4ok2A_	Alignment	not modelled	41.1	14	PDB header: lyase Chain: A: PDB Molecule: putative alginate lyase; PDBTitle: crystal structure of alg17c mutant y258a
86	d1e5ba_	Alignment	not modelled	34.6	13	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II
87	c4fnvA_	Alignment	not modelled	26.8	9	PDB header: lyase Chain: A: PDB Molecule: heparinase iii protein, heparitin sulfate lyase; PDBTitle: crystal structure of heparinase iii
88	c4mcjC_	Alignment	not modelled	24.2	24	PDB header: transferase Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative nucleoside deoxyribosyltransferase2 (bdi_0649) from parabacteroides distasonis atcc 8503 at 2.40 a3 resolution
89	d1f53a_	Alignment	not modelled	19.3	70	Fold: gamma-Crystallin-like Superfamily: gamma-Crystallin-like Family: Killer toxin-like protein SKLP
90	c4qawA_	Alignment	not modelled	17.8	24	PDB header: hydrolase Chain: A: PDB Molecule: xyn30d; PDBTitle: structure of modular xyn30d from paenibacillus barcinonensis
91	c3adyA_	Alignment	not modelled	17.5	14	PDB header: proton transport Chain: A: PDB Molecule: dotd; PDBTitle: crystal structure of dotd from legionella
92	c4zlgA_	Alignment	not modelled	16.0	21	PDB header: transferase Chain: A: PDB Molecule: putative b-glycan phosphorylase; PDBTitle: cellobionic acid phosphorylase - gluconic acid complex
93	c4ozwA_	Alignment	not modelled	15.8	12	PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of the periplasmic alginate lyase algI h202a mutant
94	c5eurC_	Alignment	not modelled	13.5	56	PDB header: unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: hypothetical protein sf216 from shigella flexneri 5a m90t
95	c3w5mA_	Alignment	not modelled	13.3	16	PDB header: hydrolase Chain: A: PDB Molecule: putative rhamnosidase; PDBTitle: crystal structure of streptomyces avermitilis alpha-l-rhamnosidase
96	c3zr6A_	Alignment	not modelled	13.0	8	PDB header: hydrolase Chain: A: PDB Molecule: galactocerebrosidase; PDBTitle: structure of galactocerebrosidase from mouse in complex with2 galactose
97	c3a0oB_	Alignment	not modelled	12.6	8	PDB header: lyase Chain: B: PDB Molecule: oligo alginate lyase; PDBTitle: crystal structure of alginate lyase from agrobacterium tumefaciens c58
98	c1ayeA_	Alignment	not modelled	12.2	16	PDB header: serine protease Chain: A: PDB Molecule: procarboxypeptidase a2; PDBTitle: human procarboxypeptidase a2
99	d1iyna_	Alignment	not modelled	10.2	16	Fold: Heme-dependent peroxidases Superfamily: Heme-dependent peroxidases Family: CCP-like

Phyre2

Email siddhartha_kundu@yahoo.co.in
 Description Q5NAT0__
 Date Thu Feb 1 11:15:32 GMT 2018
 Unique Job ID 19edadbfa51e60b5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1ga2A_	 Alignment		100.0	33	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase 9g; PDBTitle: the crystal structure of endoglucanase 9g from clostridium2 cellulolyticum complexed with cellobiose
2	c1js4B_	 Alignment		100.0	35	PDB header: glycosyl hydrolase Chain: B: PDB Molecule: endo/exocellulase e4; PDBTitle: endo/exocellulase:cellobiose from thermomonospora
3	c5gxyA_	 Alignment		100.0	31	PDB header: hydrolase Chain: A: PDB Molecule: glucanase; PDBTitle: crystal structure of endoglucanase celq from clostridium thermocellum2 complexed with cellobiose and tris
4	d1g87a1	 Alignment		100.0	37	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
5	c2yikA_	 Alignment		100.0	31	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: catalytic domain of clostridium thermocellum cellt
6	d1tf4a1	 Alignment		100.0	41	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
7	c2xfqA_	 Alignment		100.0	40	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
8	c3wc3A_	 Alignment		100.0	42	PDB header: hydrolase Chain: A: PDB Molecule: endo-1, 4-beta-glucanase; PDBTitle: crystal structure of endo-1,4-beta-glucanase from eisenia fetida
9	d1ia6a_	 Alignment		100.0	35	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
10	d1ks8a_	 Alignment		100.0	45	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
11	d1ut9a1	 Alignment		100.0	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain

12	d1clca1	 Alignment		100.0	21	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
13	c1clcA	 Alignment		100.0	22	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
14	c3gzkA	 Alignment		100.0	21	PDB header: hydrolase Chain: A: PDB Molecule: cellulase; PDBTitle: structure of a. acidocaldarius cellulase cela
15	c1ut9A	 Alignment		100.0	20	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
16	c3x17B	 Alignment		100.0	22	PDB header: hydrolase Chain: B: PDB Molecule: endoglucanase; PDBTitle: crystal structure of metagenome-derived glycoside hydrolase family 92 endoglucanase
17	c5dgrB	 Alignment		100.0	17	PDB header: hydrolase Chain: B: PDB Molecule: putative endoglucanase-related protein; PDBTitle: crystal structure of gh9 exo-beta-d-glucosaminidase pbpra0520,2 glucosamine complex
18	c3h7IC	 Alignment		100.0	18	PDB header: hydrolase Chain: C: PDB Molecule: endoglucanase; PDBTitle: crystal structure of endoglucanase-related protein from vibrio2 parahaemolyticus
19	c2xfgB	 Alignment		99.6	11	PDB header: hydrolase/sugar binding protein Chain: B: PDB Molecule: endoglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
20	d1g87a2	 Alignment		99.1	12	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
21	d1tf4a2	 Alignment	not modelled	99.1	8	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
22	c4v1sA	 Alignment	not modelled	98.8	9	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,6-mannanase; PDBTitle: structure of the gh76 alpha-mannanase bt2949 from2 bacteroides thetaiotaomicron
23	c3wkgA	 Alignment	not modelled	98.7	15	PDB header: isomerase Chain: A: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase in complex with2 glucosylmannose
24	c4c1sA	 Alignment	not modelled	98.7	11	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase family 76 mannosidase; PDBTitle: glycoside hydrolase family 76 (mannosidase) bt3792 from2 bacteroides thetaiotaomicron vpi-5482
25	c3vw5B	 Alignment	not modelled	98.5	14	PDB header: isomerase Chain: B: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of sugar epimerase from ruminal bacterium
26	c4qk0C	 Alignment	not modelled	98.5	15	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
27	c3wksA	 Alignment	not modelled	98.4	21	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
28	c4z4A	 Alignment	not modelled	98.3	13	PDB header: isomerase Chain: A: PDB Molecule: cellobiose 2-epimerase;

28	c4z4A	Alignment	not modelled	98.3	13	PDBTitle: crystal structure of cellobiose 2-epimerase from caldicellulosiruptor2 saccharolyticus dsm 8903 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0763 protein;
29	c3k7xA	Alignment	not modelled	98.3	11	PDBTitle: crystal structure of the lin0763 protein from listeria innocua.2 northeast structural genomics consortium target lkr23.
30	c2wo4A	Alignment	not modelled	98.2	16	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase, family 9; PDBTitle: 3b' carbohydrate-binding module from the cel9v glycoside2 hydrolase from clostridium thermocellum, in-house data
31	c4b9pA	Alignment	not modelled	98.2	17	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing module from putative rsgi2 protein of2 clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
32	c4bojC	Alignment	not modelled	98.0	13	PDB header: hydrolase Chain: C: PDB Molecule: alpha-1,6-mannanase; PDBTitle: crystal structure of bacillus circulans tn-31 aman6 in2 complex with mannobiose
33	d1nbca	Alignment	not modelled	98.0	15	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
34	c5mqoA	Alignment	not modelled	98.0	12	PDB header: hydrolase Chain: A: PDB Molecule: non-reducing end beta-l-arabinofuranosidase; PDBTitle: glycoside hydrolase bt_1003
35	c2l8aA	Alignment	not modelled	97.9	17	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: structure of a novel cbm3 lacking the calcium-binding site
36	d1g43a	Alignment	not modelled	97.8	17	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
37	c3gt5A	Alignment	not modelled	97.8	15	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
38	c3zqwA	Alignment	not modelled	97.7	15	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of cbm3b of major scaffoldin subunit scaa from2 acetivibrio cellulolyticus
39	c4b97A	Alignment	not modelled	97.6	20	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
40	c4mu9B	Alignment	not modelled	97.5	10	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
41	c2xbtA	Alignment	not modelled	97.5	14	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of a scaffoldin carbohydrate-binding module family 3b from2 the cellulosome of bacteroides cellulosolvens: structural diversity3 and implications for carbohydrate binding
42	c4b9cA	Alignment	not modelled	97.3	10	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
43	d1nc5a	Alignment	not modelled	97.2	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR
44	c2yIkD	Alignment	not modelled	97.1	17	PDB header: hydrolase Chain: D: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: carbohydrate-binding module cbm3b from the cellulosomal2 cellobiohydrolase 9a from clostridium thermocellum
45	c4b96A	Alignment	not modelled	97.1	14	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: family 3b carbohydrate-binding module from the biomass2 sensing system of clostridium clariflavum
46	c4wu0B	Alignment	not modelled	96.9	20	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
47	c3k11A	Alignment	not modelled	96.7	20	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
48	c4xuvB	Alignment	not modelled	96.7	13	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
49	c2gz6B	Alignment	not modelled	96.6	12	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
50	c5no8A	Alignment	not modelled	96.6	15	PDB header: lyase Chain: A: PDB Molecule: bacell_00875; PDBTitle: polysaccharide lyase bacell_00875
51	c3pmmA	Alignment	not modelled	96.0	15	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
52	d2afaa1	Alignment	not modelled	95.5	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase

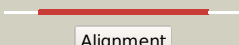



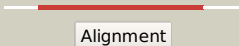

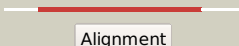



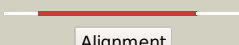

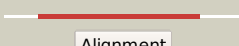

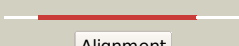




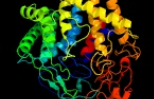


53	c4ce7B	Alignment	not modelled	94.3	11	PDB header: hydrolase Chain: B: PDB Molecule: unsaturated 3s-rhamnoglucuronyl hydrolase; PDBTitle: crystal structure of a novel unsaturated beta-glucuronyl2 hydrolase enzyme, belonging to family gh105, involved in3 ulvan degradation
54	d2d5ja1	Alignment	not modelled	93.6	13	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88
55	d1fp3a	Alignment	not modelled	93.5	17	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
56	c2zrzA	Alignment	not modelled	93.5	14	PDB header: hydrolase Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae
57	c3e6uA	Alignment	not modelled	91.1	17	PDB header: signaling protein Chain: A: PDB Molecule: lanc-like protein 1; PDBTitle: crystal structure of human lanc11
58	c5noaA	Alignment	not modelled	87.6	12	PDB header: hydrolase Chain: A: PDB Molecule: family 88 glycosyl hydrolase; PDBTitle: polysaccharide lyase baccell_00875
59	c3wiwA	Alignment	not modelled	87.6	12	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase family 88; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase specific for2 heparin
60	c4q88B	Alignment	not modelled	86.6	9	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: glycosyl hydrolase family 88 from bacteroides vulgatus
61	c1w6kA	Alignment	not modelled	86.4	10	PDB header: isomerase Chain: A: PDB Molecule: lanosterol synthase; PDBTitle: structure of human osc in complex with lanosterol
62	c3ndyG	Alignment	not modelled	86.0	19	PDB header: hydrolase Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans
63	c4pw2A	Alignment	not modelled	85.1	18	PDB header: isomerase Chain: A: PDB Molecule: d-glucuronyl c5 epimerase b; PDBTitle: crystal structure of d-glucuronyl c5 epimerase
64	d1gxma	Alignment	not modelled	84.4	20	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
65	c2rttA	Alignment	not modelled	84.0	18	PDB header: hydrolase Chain: A: PDB Molecule: chic; PDBTitle: solution structure of the chitin-binding domain of chi18ac from2 streptomyces coelicolor
66	d1exha	Alignment	not modelled	84.0	21	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II
67	c5a29A	Alignment	not modelled	78.3	32	PDB header: lyase Chain: A: PDB Molecule: exopolysaccharide lyase; PDBTitle: family 2 pectate lyase from vibrio vulnificus
68	c2kmgA	Alignment	not modelled	72.2	17	PDB header: gene regulation Chain: A: PDB Molecule: klca; PDBTitle: the structure of the klca and ardb proteins show a novel2 fold and antirestriction activity against type i dna3 restriction systems in vivo but not in vitro
69	d1qaza	Alignment	not modelled	67.5	14	Fold: alpha/alpha toroid Superfamily: Chondroitin AC/alginate lyase Family: Alginate lyase A1-III
70	d1r76a	Alignment	not modelled	65.8	12	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
71	c4ayqA	Alignment	not modelled	56.5	24	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
72	c1krfA	Alignment	not modelled	54.8	18	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
73	d2ri9a1	Alignment	not modelled	54.8	18	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain
74	d1hcua	Alignment	not modelled	45.5	21	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain
75	c2v8kA	Alignment	not modelled	40.5	18	PDB header: lyase Chain: A: PDB Molecule: pectate lyase; PDBTitle: structure of a family 2 pectate lyase in complex with2 trigalacturonic acid
76	d1x9da1	Alignment	not modelled	38.1	24	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain
77	c1x9dA	Alignment	not modelled	38.1	24	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannosyl-oligosaccharide 1,2-alpha- PDBTitle: crystal structure of human class i alpha-1,2-mannosidase in complex2 with thio-disaccharide substrate analogue

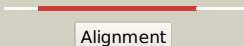



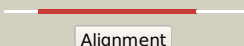



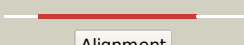

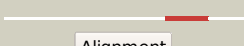
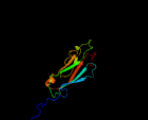

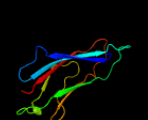







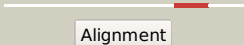




78	c3t33A_	Alignment	not modelled	36.7	13	PDB header: signaling protein receptor Chain: A: PDB Molecule: g protein coupled receptor; PDBTitle: crystal structure of arabidopsis gcr2
79	d1dl2a_	Alignment	not modelled	35.8	24	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
80	d1nxca_	Alignment	not modelled	35.0	17	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
81	c1g6iA_	Alignment	not modelled	33.1	24	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
82	c4ok2A_	Alignment	not modelled	29.5	18	PDB header: lyase Chain: A: PDB Molecule: putative alginate lyase; PDBTitle: crystal structure of alg17c mutant y258a
83	d1tzaa_	Alignment	not modelled	25.5	23	Fold: Immunoglobulin-like beta-sandwich Superfamily: ApaG-like Family: ApaG-like
84	c4ozwA_	Alignment	not modelled	23.8	15	PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of the periplasmic alginate lyase algI h202a mutant
85	c2fuqA_	Alignment	not modelled	23.2	8	PDB header: sugar binding protein Chain: A: PDB Molecule: heparinase ii protein; PDBTitle: crystal structure of heparinase ii
86	c3nfvA_	Alignment	not modelled	21.5	17	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
87	d1l1aa3	Alignment	not modelled	21.4	22	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Arthropod hemocyanin, C-terminal domain
88	c5hdwA_	Alignment	not modelled	19.1	13	PDB header: protein binding Chain: A: PDB Molecule: f-box only protein 3; PDBTitle: apag domain of fbx03
89	d1xvsa_	Alignment	not modelled	19.1	18	Fold: Immunoglobulin-like beta-sandwich Superfamily: ApaG-like Family: ApaG-like
90	c3a0oB_	Alignment	not modelled	19.0	12	PDB header: lyase Chain: B: PDB Molecule: oligo alginate lyase; PDBTitle: crystal structure of alginate lyase from agrobacterium tumefaciens c58
91	d1f53a_	Alignment	not modelled	18.3	64	Fold: gamma-Crystallin-like Superfamily: gamma-Crystallin-like Family: Killer toxin-like protein SKLP
92	c5bp8A_	Alignment	not modelled	17.7	14	PDB header: isomerase Chain: A: PDB Molecule: ent-copalyl diphosphate synthase; PDBTitle: ent-copalyl diphosphate synthase from streptomyces platensis
93	c2f1eA_	Alignment	not modelled	16.9	25	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein apag; PDBTitle: solution structure of apag protein
94	c2laaA_	Alignment	not modelled	16.7	15	PDB header: hydrolase Chain: A: PDB Molecule: beta/alpha-amylase; PDBTitle: solution structure of the cbm25-1 of beta/alpha-amylase from2 paenibacillus polymyxa
95	c1ug9A_	Alignment	not modelled	15.5	20	PDB header: hydrolase Chain: A: PDB Molecule: glucodextranase; PDBTitle: crystal structure of glucodextranase from arthrobacter globiformis i42
96	d1w8oa1	Alignment	not modelled	14.3	20	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
97	c5eurC_	Alignment	not modelled	13.4	56	PDB header: unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: hypothetical protein sf216 from shigella flexneri 5a m90t
98	d2g0da1	Alignment	not modelled	13.4	12	Fold: alpha/alpha toroid Superfamily: LanC-like Family: LanC-like
99	c3q7aB_	Alignment	not modelled	12.6	17	PDB header: transferase/transferase inhibitor Chain: B: PDB Molecule: farnesyltransferase beta subunit; PDBTitle: cryptococcus neoformans protein farnesyltransferase in complex with2 fpp and I-778,123

Phyre2

Email	siddhartha_kundu@yahoo.co.in
Description	Q93WY9__
Date	Sat Aug 15 22:30:43 BST 2015
Unique Job ID	5130cfbdfa612b38

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1ga2A_	 Alignment		100.0	33	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase 9g; PDBTitle: the crystal structure of endoglucanase 9g from clostridium2 cellulolyticum complexed with cellobiose
2	c1js4B_	 Alignment		100.0	39	PDB header: glycosyl hydrolase Chain: B: PDB Molecule: endo/exocellulase e4; PDBTitle: endo/exocellulase:cellobiose from thermomonospora
3	d1g87a1	 Alignment		100.0	38	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
4	c2yikA_	 Alignment		100.0	32	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: catalytic domain of clostridium thermocellum cellt
5	d1tf4a1	 Alignment		100.0	44	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
6	c3wc3A_	 Alignment		100.0	44	PDB header: hydrolase Chain: A: PDB Molecule: endo-1, 4-beta-glucanase; PDBTitle: crystal structure of endo-1,4-beta-glucanase from eisenia fetida
7	c2xfqA_	 Alignment		100.0	41	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
8	d1ks8a_	 Alignment		100.0	47	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
9	d1ia6a_	 Alignment		100.0	35	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
10	d1ut9a1	 Alignment		100.0	21	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
11	c3gzkA_	 Alignment		100.0	21	PDB header: hydrolase Chain: A: PDB Molecule: cellulase; PDBTitle: structure of a. acidocaldarius cellulase cela

12	c1clcA	 Alignment		100.0	21	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
13	c1ut9A	 Alignment		100.0	22	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
14	d1clca1	 Alignment		100.0	21	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
15	c3x17B	 Alignment		100.0	23	PDB header: hydrolase Chain: B: PDB Molecule: endoglucanase; PDBTitle: crystal structure of metagenome-derived glycoside hydrolase family 92 endoglucanase
16	c3h71C	 Alignment		100.0	17	PDB header: hydrolase Chain: C: PDB Molecule: endoglucanase; PDBTitle: crystal structure of endoglucanase-related protein from vibrio2 paraohaemolyticus
17	c2xfgB	 Alignment		99.8	20	PDB header: hydrolase/sugar binding protein Chain: B: PDB Molecule: endoglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
18	d1tf4a2	 Alignment		99.4	16	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
19	d1g87a2	 Alignment		99.4	12	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
20	c4b9pA	 Alignment		98.8	17	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing module from putative rsgi2 protein of2 clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
21	c4v1sA	 Alignment	not modelled	98.7	9	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,6-mannanase; PDBTitle: structure of the gh76 alpha-mannanase bt2949 from2 bacteroides thetaiotaomicron
22	d1g43a	 Alignment	not modelled	98.7	17	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
23	d1nbca	 Alignment	not modelled	98.7	12	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
24	c2wo4A	 Alignment	not modelled	98.7	15	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase, family 9; PDBTitle: 3b' carbohydrate-binding module from the cel9v glycoside2 hydrolase from clostridium thermocellum, in-house data
25	c2l8aA	 Alignment	not modelled	98.6	13	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: structure of a novel cbm3 lacking the calcium-binding site
26	c4b97A	 Alignment	not modelled	98.6	14	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
27	c4c1sA	 Alignment	not modelled	98.6	14	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase family 76 mannosidase; PDBTitle: glycoside hydrolase family 76 (mannosidase) bt3792 from2 bacteroides thetaiotaomicron vpi-5482
						PDB header: carbohydrate-binding protein

28	c3zqwA_	Alignment	not modelled	98.5	14	Chain: A: PDB Molecule: cellulosomal scarroidin; PDBTitle: structure of cbm3b of major scaffoldin subunit scaa from2 acetivibrio cellulolyticus
29	c4qk0C_	Alignment	not modelled	98.5	14	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
30	c3vw5B_	Alignment	not modelled	98.5	19	PDB header: isomerase Chain: B: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of sugar epimerase from ruminal bacterium
31	c3wkgA_	Alignment	not modelled	98.4	12	PDB header: isomerase Chain: A: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase in complex with2 glucosylmannose
32	c2xbtA_	Alignment	not modelled	98.4	13	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of a scaffoldin carbohydrate-binding module family 3b from2 the cellulosome of bacteroides cellulosolvens: structural diversity3 and implications for carbohydrate binding
33	c3k7xA_	Alignment	not modelled	98.2	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0763 protein; PDBTitle: crystal structure of the lin0763 protein from listeria2 innocua. northeast structural genomics consortium target3 lkr23.
34	c4b96A_	Alignment	not modelled	98.2	11	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: family 3b carbohydrate-binding module from the biomass2 sensing system of clostridium clariflavum
35	c3wxA_	Alignment	not modelled	98.2	16	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
36	c4b9cA_	Alignment	not modelled	98.1	10	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
37	c4bojC_	Alignment	not modelled	98.0	15	PDB header: hydrolase Chain: C: PDB Molecule: alpha-1,6-mannanase; PDBTitle: crystal structure of bacillus circulans tn-31 aman6 in2 complex with mannobiose
38	c4mu9B_	Alignment	not modelled	98.0	14	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
39	c2yIkD_	Alignment	not modelled	98.0	12	PDB header: hydrolase Chain: D: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: carbohydrate-binding module cbm3b from the cellulosomal2 cellobiohydrolase 9a from clostridium thermocellum
40	c3gt5A_	Alignment	not modelled	97.6	17	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
41	c4xuvB_	Alignment	not modelled	97.4	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
42	d2d5ja1	Alignment	not modelled	97.1	10	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88
43	d1nc5a_	Alignment	not modelled	97.1	16	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR
44	c4wu0B_	Alignment	not modelled	96.7	13	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
45	c2gz6B_	Alignment	not modelled	96.6	10	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
46	c3wiwA_	Alignment	not modelled	96.5	12	PDB header: hydrolase Chain: A: PDB Molecule: glycosyl hydrolase family 88; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase specific for2 heparin
47	d2afaa1	Alignment	not modelled	96.3	12	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
48	c3pmmA_	Alignment	not modelled	95.9	10	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
49	c4ce7B_	Alignment	not modelled	94.7	10	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
50	c2zzrA_	Alignment	not modelled	94.6	14	PDB header: hydrolase Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae
51	c3k11A_	Alignment	not modelled	92.4	17	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
52	c3e6uA_	Alignment	not modelled	89.1	17	PDB header: signaling protein Chain: A: PDB Molecule: lanc-like protein 1;

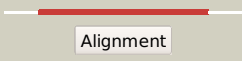

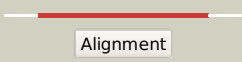

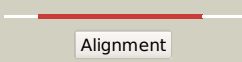

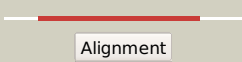

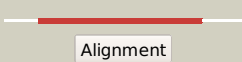

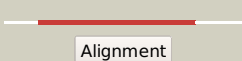

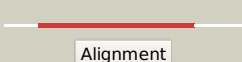

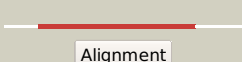

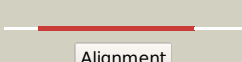

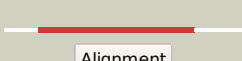

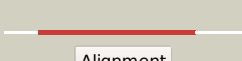

						PDBTitle: crystal structure of human lancl1
53	d1fp3a_	Alignment	not modelled	88.7	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
54	c1w6kA_	Alignment	not modelled	85.8	15	PDB header: isomerase Chain: A: PDB Molecule: lanosterol synthase; PDBTitle: structure of human osc in complex with lanosterol
55	c4q88B_	Alignment	not modelled	85.4	10	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: glycosyl hydrolase family 88 from bacteroides vulgatus
56	c4pw2A_	Alignment	not modelled	84.5	18	PDB header: isomerase Chain: A: PDB Molecule: d-glucuronyl c5 epimerase b; PDBTitle: crystal structure of d-glucuronyl c5 epimerase
57	d1gxma_	Alignment	not modelled	80.3	16	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
58	d1r76a_	Alignment	not modelled	77.4	11	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
59	c5a29A_	Alignment	not modelled	77.4	29	PDB header: lyase Chain: A: PDB Molecule: exopolysaccharide lyase; PDBTitle: family 2 pectate lyase from vibrio vulnificus
60	c3t33A_	Alignment	not modelled	77.0	15	PDB header: signaling protein receptor Chain: A: PDB Molecule: g protein coupled receptor; PDBTitle: crystal structure of arabidopsis gcr2
61	c3ndyG_	Alignment	not modelled	64.7	18	PDB header: hydrolase Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans
62	c2kmgA_	Alignment	not modelled	63.9	22	PDB header: gene regulation Chain: A: PDB Molecule: klca; PDBTitle: the structure of the klca and ardb proteins show a novel2 fold and antirestriction activity against type i dna3 restriction systems in vivo but not in vitro
63	d1exha_	Alignment	not modelled	62.5	20	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II
64	c4ayqA_	Alignment	not modelled	60.4	10	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
65	d1nxca_	Alignment	not modelled	59.2	19	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
66	d1dl2a_	Alignment	not modelled	58.9	19	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
67	d1x9da1	Alignment	not modelled	58.1	19	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
68	c1x9dA_	Alignment	not modelled	58.1	19	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannosyl-oligosaccharide 1, PDBTitle: crystal structure of human class i alpha-1,2-mannosidase in2 complex with thio-disaccharide substrate analogue
69	c1q6iA_	Alignment	not modelled	56.7	19	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
70	c4ok2A_	Alignment	not modelled	53.1	13	PDB header: lyase Chain: A: PDB Molecule: putative alginate lyase; PDBTitle: crystal structure of alg17c mutant y258a
71	c2fuqA_	Alignment	not modelled	47.1	5	PDB header: sugar binding protein Chain: A: PDB Molecule: heparinase ii protein; PDBTitle: crystal structure of heparinase ii
72	c2v8kA_	Alignment	not modelled	35.0	21	PDB header: lyase Chain: A: PDB Molecule: pectate lyase; PDBTitle: structure of a family 2 pectate lyase in complex with2 trigalacturonic acid
73	c2ee2A_	Alignment	not modelled	34.5	14	PDB header: signaling protein Chain: A: PDB Molecule: contactin-1; PDBTitle: solution structures of the fn3 domain of human contactin 1
74	c3cihA_	Alignment	not modelled	31.7	11	PDB header: hydrolase Chain: A: PDB Molecule: putative alpha-rhamnosidase; PDBTitle: crystal structure of a putative alpha-rhamnosidase from2 bacteroides thetaiotaomicron
75	d1qaza_	Alignment	not modelled	31.6	13	Fold: alpha/alpha toroid Superfamily: Chondroitin AC/alginate lyase Family: Alginate lyase A1-III
76	d2dn7a1	Alignment	not modelled	30.8	14	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
77	d1q38a_	Alignment	not modelled	23.7	10	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
78	c2rttA_	Alignment	not modelled	19.9	22	PDB header: hydrolase Chain: A: PDB Molecule: chic; PDBTitle: solution structure of the chitin-binding domain of chi18ac

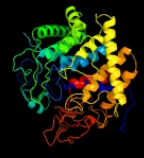

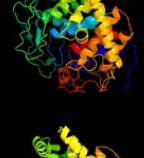
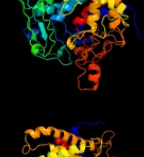

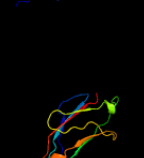


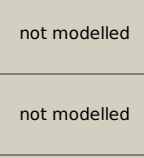
						from2 streptomyces coelicolor
79	c1o79A_	Alignment	not modelled	19.3	12	PDB header: isomerase Chain: A: PDB Molecule: squalene--hopene cyclase; PDBTitle: structures of human oxidosqualene cyclase inhibitors bound2 to a homologous enzyme
80	c2dbjA_	Alignment	not modelled	19.2	11	PDB header: transferase, signaling protein Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase mer PDBTitle: solution structures of the fn3 domain of human proto-2 oncogene tyrosine-protein kinase mer precursor
81	c4mcjC_	Alignment	not modelled	17.1	27	PDB header: transferase Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative nucleoside deoxyribosyltransferase2 (bdi_0649) from parabacteroides distasonis atcc 8503 at 2.40 a3 resolution
82	c2kbgA_	Alignment	not modelled	17.1	14	PDB header: cell adhesion Chain: A: PDB Molecule: neural cell adhesion molecule 2; PDBTitle: solution structure of the second fibronectin type-iii module2 of ncam2
83	d1f53a_	Alignment	not modelled	17.0	64	Fold: gamma-Crystallin-like Superfamily: gamma-Crystallin-like Family: Killer toxin-like protein SKLP
84	d1vzsa_	Alignment	not modelled	16.3	18	Fold: Mitochondrial ATP synthase coupling factor 6 Superfamily: Mitochondrial ATP synthase coupling factor 6 Family: Mitochondrial ATP synthase coupling factor 6
85	c5bp8A_	Alignment	not modelled	15.6	16	PDB header: isomerase Chain: A: PDB Molecule: ent-copalyl diphosphate synthase; PDBTitle: ent-copalyl diphosphate synthase from streptomyces platensis
86	c3a0oB_	Alignment	not modelled	15.2	11	PDB header: lyase Chain: B: PDB Molecule: oligo alginate lyase; PDBTitle: crystal structure of alginate lyase from agrobacterium tumefaciens c58
87	c3teuA_	Alignment	not modelled	13.0	14	PDB header: de novo protein Chain: A: PDB Molecule: fibcon; PDBTitle: crystal structure of fibcon
88	d3csba1	Alignment	not modelled	12.1	11	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
89	d1g4ma2	Alignment	not modelled	11.8	18	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Arrestin/Vps26-like
90	d2g0da1	Alignment	not modelled	11.7	13	Fold: alpha/alpha toroid Superfamily: LanC-like Family: LanC-like
91	c4lsdF_	Alignment	not modelled	11.5	11	PDB header: hormone Chain: F: PDB Molecule: fibronectin type iii domain-containing protein 5; PDBTitle: myokine structure
92	c3q7aB_	Alignment	not modelled	10.7	13	PDB header: transferase/transferase inhibitor Chain: B: PDB Molecule: farnesyltransferase beta subunit; PDBTitle: cryptococcus neoformans protein farnesyltransferase in complex with2 fpp and I-778,123
93	d2crza1	Alignment	not modelled	10.7	10	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
94	d1qg3a1	Alignment	not modelled	10.5	16	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
95	d1pjwa_	Alignment	not modelled	10.5	33	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Class II viral fusion proteins C-terminal domain
96	d2clyc1	Alignment	not modelled	10.3	17	Fold: Mitochondrial ATP synthase coupling factor 6 Superfamily: Mitochondrial ATP synthase coupling factor 6 Family: Mitochondrial ATP synthase coupling factor 6
97	d1fnha1	Alignment	not modelled	10.1	20	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
98	c4ozwA_	Alignment	not modelled	10.0	13	PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of the periplasmic alginate lyase algI h202a mutant
99	c3nfvA_	Alignment	not modelled	9.7	15	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

Phyre2

Email	siddhartha_kundu@yahoo.co.in
Description	Q9ZSP9__
Date	Sat Aug 15 22:35:40 BST 2015
Unique Job ID	f8bd735ab827e260

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1ga2A_	 Alignment		100.0	32	PDB header: hydrolase Chain: A: PDB Molecule: endooglucanase 9g; PDBTitle: the crystal structure of endoglucanase 9g from clostridium2 cellulolyticum complexed with cellobiose
2	c1js4B_	 Alignment		100.0	38	PDB header: glycosyl hydrolase Chain: B: PDB Molecule: endo/exocellulase e4; PDBTitle: endo/exocellulase:cellobiose from thermomonospora
3	d1g87a1	 Alignment		100.0	37	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
4	c2yikA_	 Alignment		100.0	32	PDB header: hydrolase Chain: A: PDB Molecule: endooglucanase; PDBTitle: catalytic domain of clostridium thermocellum cellt
5	d1tf4a1	 Alignment		100.0	43	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
6	c2xfgA_	 Alignment		100.0	41	PDB header: hydrolase/sugar binding protein Chain: A: PDB Molecule: endooglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
7	c3wc3A_	 Alignment		100.0	45	PDB header: hydrolase Chain: A: PDB Molecule: endo-1, 4-beta-glucanase; PDBTitle: crystal structure of endo-1,4-beta-glucanase from eisenia fetida
8	d1ia6a_	 Alignment		100.0	35	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
9	d1ks8a_	 Alignment		100.0	47	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
10	d1ut9a1	 Alignment		100.0	20	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
11	c3gzkA_	 Alignment		100.0	21	PDB header: hydrolase Chain: A: PDB Molecule: cellulase; PDBTitle: structure of a. acidocaldarius cellulase cela

12	c1ut9A_	Alignment		100.0	21	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
13	d1clca1	Alignment		100.0	21	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain
14	c1clcA_	Alignment		100.0	21	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
15	c3x17B_	Alignment		100.0	23	PDB header: hydrolase Chain: B: PDB Molecule: endoglucanase; PDBTitle: crystal structure of metagenome-derived glycoside hydrolase family 92 endoglucanase
16	c3h71C_	Alignment		100.0	18	PDB header: hydrolase Chain: C: PDB Molecule: endoglucanase; PDBTitle: crystal structure of endoglucanase-related protein from vibrio2 paraahaemolyticus
17	c2xfgB_	Alignment		99.8	17	PDB header: hydrolase/sugar binding protein Chain: B: PDB Molecule: endoglucanase 1; PDBTitle: reassembly and co-crystallization of a family 9 processive2 endoglucanase from separately expressed gh9 and cbm3c3 modules
18	d1tf4a2	Alignment		99.5	14	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
19	d1g87a2	Alignment		99.5	11	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
20	c4b9pA_	Alignment		98.9	14	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing module from putative rsgi2 protein of2 clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
21	d1nbca_	Alignment	not modelled	98.9	12	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
22	d1g43a_	Alignment	not modelled	98.8	17	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
23	c2wo4A_	Alignment	not modelled	98.8	14	PDB header: hydrolase Chain: A: PDB Molecule: glycoside hydrolase, family 9; PDBTitle: 3b' carbohydrate-binding module from the cel9v glycoside2 hydrolase from clostridium thermocellum, in-house data
24	c2l8aA_	Alignment	not modelled	98.8	11	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: structure of a novel cbm3 lacking the calcium-binding site
25	c4v1sA_	Alignment	not modelled	98.7	9	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,6-mannanase; PDBTitle: structure of the gh76 alpha-mannanase bt2949 from2 bacteroides thetaiotaomicron
26	c4b97A_	Alignment	not modelled	98.7	11	PDB header: sugar binding protein Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: biomass sensing modules from putative rsgi-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome
27	c3zqwA_	Alignment	not modelled	98.7	14	PDB header: carbohydrate-binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin; PDBTitle: structure of cbm3b of major scaffoldin subunit scaa from2 acetivibrio cellulolyticus
						PDB header: sugar binding protein Chain: A: PDB Molecule: cellulosomal scaffoldin;

28	c2xbtA_	Alignment	not modelled	98.5	11	PDBTitle: structure of a scaffoldin carbohydrate-binding module family 3b from2 the cellulosome of bacteroides cellulosolvans: structural diversity3 and implications for carbohydrate binding PDB header: hydrolase
29	c4qk0C_	Alignment	not modelled	98.3	16	Chain: C: PDB Molecule: gh127 beta-l-arabinofuranoside; PDBTitle: crystal structure of ara127n-se, a gh127 beta-l-arabinofuranosidase2 from geobacillus stearothermophilus t6 PDB header: sugar binding protein
30	c4b96A_	Alignment	not modelled	98.3	11	Chain: A: PDB Molecule: cellulose binding domain-containing protein; PDBTitle: family 3b carbohydrate-binding module from the biomass2 sensing system of clostridium clariflavum PDB header: hydrolase
31	c4c1sA_	Alignment	not modelled	98.3	13	Chain: A: PDB Molecule: glycoside hydrolase family 76 mannosidase; PDBTitle: glycoside hydrolase family 76 (mannosidase) bt3792 from2 bacteroides thetaiotaomicron vpi-5482 PDB header: isomerase
32	c3wkgA_	Alignment	not modelled	98.2	14	Chain: A: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of cellobiose 2-epimerase in complex with2 glucosylmannose PDB header: hydrolase
33	c2yIkD_	Alignment	not modelled	98.2	8	Chain: D: PDB Molecule: cellulose 1,4-beta-cellobiosidase; PDBTitle: carbohydrate-binding module cbm3b from the cellulosomal2 cellobiohydrolase 9a from clostridium thermocellum PDB header: isomerase
34	c3vw5B_	Alignment	not modelled	98.2	19	Chain: B: PDB Molecule: cellobiose 2-epimerase; PDBTitle: crystal structure of sugar epimerase from ruminal bacterium PDB header: hydrolase
35	c3wKxA_	Alignment	not modelled	98.2	18	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 PDB header: carbohydrate-binding protein
36	c4b9cA_	Alignment	not modelled	98.2	8	Chain: A: PDB Molecule: type 3a cellulose-binding domain protein; PDBTitle: biomass sensing modules from putative rsgI-like proteins2 of clostridium thermocellum resemble family 3 carbohydrate-3 binding module of cellulosome PDB header: structural genomics, unknown function
37	c3k7xA_	Alignment	not modelled	98.1	15	Chain: A: PDB Molecule: lin0763 protein; PDBTitle: crystal structure of the lin0763 protein from listeria2 innocua. northeast structural genomics consortium target3 lkr23. PDB header: hydrolase
38	c4bojC_	Alignment	not modelled	97.9	17	Chain: C: PDB Molecule: alpha-1,6-mannanase; PDBTitle: crystal structure of bacillus circulans tn-31 aman6 in2 complex with mannobiose PDB header: isomerase
39	c3gt5A_	Alignment	not modelled	97.4	15	Chain: A: PDB Molecule: n-acetylglucosamine 2-epimerase; PDBTitle: crystal structure of an n-acetylglucosamine 2-epimerase family protein2 from xylella fastidiosa PDB header: hydrolase
40	c4mu9B_	Alignment	not modelled	97.3	17	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 Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR
41	d1nc5a_	Alignment	not modelled	96.8	14	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 PDB header: hydrolase
42	c4xuvB_	Alignment	not modelled	96.8	11	Chain: B: PDB Molecule: similar to yter (bacilus subtilis); PDBTitle: structural analysis of c. acetobutylicum atcc 824 glycoside hydrolase2 from family 105 Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
43	c4wu0B_	Alignment	not modelled	96.4	16	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 PDB header: hydrolase
44	d2afaa1	Alignment	not modelled	96.4	10	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 PDB header: hydrolase
45	c3pmmA_	Alignment	not modelled	95.6	9	Chain: B: 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 PDB header: isomerase
46	c4ce7B_	Alignment	not modelled	95.6	15	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 Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II PDB header: hydrolase
47	c3k11A_	Alignment	not modelled	95.1	14	Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans PDB header: hydrolase
48	c2gz6B_	Alignment	not modelled	92.7	10	Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae PDB header: hydrolase
49	d1exha_	Alignment	not modelled	92.6	23	PDB header: hydrolase
50	c3ndyG_	Alignment	not modelled	92.4	16	Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans PDB header: hydrolase
51	c2zzrA_	Alignment	not modelled	92.1	17	Chain: A: PDB Molecule: unsaturated glucuronyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase from2 streptococcus agalactiae PDB header: hydrolase

52	c3wiwA	Alignment	not modelled	90.2	13	Chain: A: PDB Molecule: glycosyl hydrolase family 88; PDBTitle: crystal structure of unsaturated glucuronyl hydrolase specific for2 heparin
53	d1fp3a	Alignment	not modelled	89.5	16	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
54	c4q88B	Alignment	not modelled	89.0	8	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: glycosyl hydrolase family 88 from bacteroides vulgatus
55	d2d5ja1	Alignment	not modelled	87.9	14	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88
56	c2rttA	Alignment	not modelled	87.2	22	PDB header: hydrolase Chain: A: PDB Molecule: chic; PDBTitle: solution structure of the chitin-binding domain of chi18ac from2 streptomyces coelicolor
57	c1w6kA	Alignment	not modelled	86.7	10	PDB header: isomerase Chain: A: PDB Molecule: lanosterol synthase; PDBTitle: structure of human osc in complex with lanosterol
58	d1gxma	Alignment	not modelled	85.7	26	Fold: alpha/alpha toroid Superfamily: Family 10 polysaccharide lyase Family: Family 10 polysaccharide lyase
59	c3e6uA	Alignment	not modelled	79.3	18	PDB header: signaling protein Chain: A: PDB Molecule: lancl-like protein 1; PDBTitle: crystal structure of human lancl1
60	c5a29A	Alignment	not modelled	79.2	29	PDB header: lyase Chain: A: PDB Molecule: exopolysaccharonate lyase; PDBTitle: family 2 pectate lyase from vibrio vulnificus
61	c4pw2A	Alignment	not modelled	71.4	19	PDB header: isomerase Chain: A: PDB Molecule: d-glucuronyl c5 epimerase b; PDBTitle: crystal structure of d-glucuronyl c5 epimerase
62	c3cihA	Alignment	not modelled	60.1	11	PDB header: hydrolase Chain: A: PDB Molecule: putative alpha-rhamnosidase; PDBTitle: crystal structure of a putative alpha-rhamnosidase from2 bacteroides thetaiotaomicron
63	d1hcua	Alignment	not modelled	55.8	14	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
64	c2v8kA	Alignment	not modelled	50.6	20	PDB header: lyase Chain: A: PDB Molecule: pectate lyase; PDBTitle: structure of a family 2 pectate lyase in complex with2 trigalacturonic acid
65	d1qaza	Alignment	not modelled	47.9	12	Fold: alpha/alpha toroid Superfamily: Chondroitin AC/alginate lyase Family: Alginate lyase A1-III
66	c2kmgA	Alignment	not modelled	45.1	22	PDB header: gene regulation Chain: A: PDB Molecule: klca; PDBTitle: the structure of the klca and ardb proteins show a novel2 fold and antirestriction activity against type i dna3 restriction systems in vivo but not in vitro
67	d1d12a	Alignment	not modelled	43.8	14	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
68	c4ayqA	Alignment	not modelled	41.7	10	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
69	c1g6iA	Alignment	not modelled	40.8	14	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
70	c4zwiA	Alignment	not modelled	34.9	17	PDB header: signaling protein Chain: A: PDB Molecule: chimera protein of human rhodopsin, mouse s-arrestin, and PDBTitle: crystal structure of rhodopsin bound to arrestin by femtosecond x-ray2 laser
71	c2fuqA	Alignment	not modelled	34.4	5	PDB header: sugar binding protein Chain: A: PDB Molecule: heparinase ii protein; PDBTitle: crystal structure of heparinase ii
72	c1krfA	Alignment	not modelled	32.7	11	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
73	d2ri9a1	Alignment	not modelled	32.7	11	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
74	d1nxca	Alignment	not modelled	31.3	10	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
75	c4ok2A	Alignment	not modelled	30.1	17	PDB header: lyase Chain: A: PDB Molecule: putative alginate lyase; PDBTitle: crystal structure of alg17c mutant y258a
76	c3nfvA	Alignment	not modelled	27.6	13	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
77	c4zwc	Alignment	not modelled	27.3	19	PDB header: signaling protein Chain: C: PDB Molecule: chimera protein of human rhodopsin, mouse s-arrestin, and PDBTitle: crystal structure of rhodopsin bound to arrestin by

						femtosecond x-ray2 laser
78	c2okxB	Alignment	not modelled	20.4	12	PDB header: hydrolase Chain: B: PDB Molecule: rhamnosidase b; PDBTitle: crystal structure of gh78 family rhamnosidase of bacillus sp. gl1 at2 1.9 a
79	c4quwA	Alignment	not modelled	17.4	27	PDB header: lyase Chain: A: PDB Molecule: aldehyde decarboxylase; PDBTitle: crystal structure of the apo form of cyanobacterial aldehyde-2 deformylating oxygenase
80	c3a0oB	Alignment	not modelled	17.1	7	PDB header: lyase Chain: B: PDB Molecule: oligo alginate lyase; PDBTitle: crystal structure of alginate lyase from agrobacterium tumefaciens c58
81	d1f53a	Alignment	not modelled	15.3	70	Fold: gamma-Crystallin-like Superfamily: gamma-Crystallin-like Family: Killer toxin-like protein SKLP
82	c3adyA	Alignment	not modelled	14.5	14	PDB header: proton transport Chain: A: PDB Molecule: dotd; PDBTitle: crystal structure of dotd from legionella
83	d1x9da1	Alignment	not modelled	13.6	7	Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1,2-mannosidase, catalytic domain
84	c1x9dA	Alignment	not modelled	13.6	7	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannosyl-oligosaccharide 1, PDBTitle: crystal structure of human class i alpha-1,2-mannosidase in2 complex with thio-disaccharide substrate analogue
85	c3t33A	Alignment	not modelled	13.0	13	PDB header: signaling protein receptor Chain: A: PDB Molecule: g protein coupled receptor; PDBTitle: crystal structure of arabidopsis gcr2
86	d1pjwa	Alignment	not modelled	12.2	38	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Class II viral fusion proteins C-terminal domain
87	d1g4ma2	Alignment	not modelled	11.4	17	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Arrestin/Vps26-like
88	c4ozwA	Alignment	not modelled	11.4	13	PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of the periplasmic alginate lyase algI h202a mutant
89	c3vhxF	Alignment	not modelled	10.8	40	PDB header: cell cycle/signaling protein Chain: F: PDB Molecule: kinesin-like protein kif23; PDBTitle: the crystal structure of arf6-mklp1 (mitotic kinesin-like protein 1)2 complex
90	c4fnvA	Alignment	not modelled	10.7	10	PDB header: lyase Chain: A: PDB Molecule: heparinase iii protein, heparitin sulfate lyase; PDBTitle: crystal structure of heparinase iii
91	c5bp8A	Alignment	not modelled	10.4	12	PDB header: isomerase Chain: A: PDB Molecule: ent-copalyl diphosphate synthase; PDBTitle: ent-copalyl diphosphate synthase from streptomyces platensis
92	d2oc5a1	Alignment	not modelled	10.1	19	Fold: Ferritin-like Superfamily: Ferritin-like Family: PMT1231-like
93	c2c3wB	Alignment	not modelled	9.6	16	PDB header: sugar-binding protein Chain: B: PDB Molecule: alpha-amylase g-6; PDBTitle: structure of cbm25 from bacillus halodurans amylase in2 complex with maltotetraose
94	c4hfkC	Alignment	not modelled	8.6	44	PDB header: hydrolase Chain: C: PDB Molecule: putative cytoplasmic protein; PDBTitle: crystal structure of the type vi effector-immunity complex tae4-tai42 from enterobacter cloacae
95	c4zlgA	Alignment	not modelled	7.8	17	PDB header: transferase Chain: A: PDB Molecule: putative b-glycan phosphorylase; PDBTitle: cellobionic acid phosphorylase - gluconic acid complex
96	c3egpA	Alignment	not modelled	7.4	29	PDB header: viral protein Chain: A: PDB Molecule: envelope protein; PDBTitle: crystal structure analysis of dengue-1 envelope protein2 domain iii
97	c2jqmA	Alignment	not modelled	7.3	33	PDB header: transferase Chain: A: PDB Molecule: envelope protein e; PDBTitle: yellow fever envelope protein domain iii nmr structure2 (s288-k398)
98	c4xhcB	Alignment	not modelled	7.2	16	PDB header: hydrolase Chain: B: PDB Molecule: alpha-l-rhamnosidase; PDBTitle: rhamnosidase from klebsiella oxytoca with rhamnose bound
99	c3c67B	Alignment	not modelled	6.9	11	PDB header: hydrolase Chain: B: PDB Molecule: uncharacterized protein ygjk; PDBTitle: escherichia coli k12 ygjk in a complexed with glucose