

1 **Table S3. Summary of glycoside hydrolases and carbohydrate-binding modules found in the Tammar wallaby foregut microbiome.**

CAZy Family	Pfam HMM Name	Pfam Accession	Pfam description	Known activities	Tammar foregut community	
					Metagenome	fosmids
Glycoside hydrolase catalytic domains						
GH1	Glyco_hydro_1	PF00232.10	Glycosyl hydrolase family 1	β -glucosidase, β -galactosidase, 6-phospho- β -glucosidase, β -glucuronidase, others	61	1
GH2	Glyco_hydro_2_C	PF02836.9	Glycosyl hydrolase family 2, TIM barallel domain	β -galactosidase, β -glucuronidase, β -mannosidase, others	24	4
GH3	Glyco_hydro_3	PF00933.13	Glycosyl hydrolase family 3 N terminal domain	β -glucosidase	72	3
GH4	Glyco_hydro_4	PF02056.8	Family 4 glycosyl hydrolase	α -glucosidase, α -galactosidase, 6-phospho- β -glucosidase, α -glucuronidase, others	2	0
GH5	Cellulase	PF00150.10	Cellulase (glycosyl hydrolase family 5)	cellulase, β -1,4-endoglucanase, β -1,3-glucosidase, β -1,4-endoxylanase, β -1,4-endomannanase, others	10	14
GH6	Glyco_hydro_6	PF01341.9	Glycosyl hydrolase family 6	endoglucanase, cellobiohydrolase	0	1
GH7	Glyco_hydro_7	PF00840.12	Glycosyl hydrolase family 7	endoglucanase, cellobiohydrolase (fungal only)	0	0
GH8	Glyco_hydro_8	PF01270.9	Glycosyl hydrolase family 8	chitosanase, cellulase, licheninase, endo-1,4- β -xylanase, others	1	1
GH9	Glyco_hydro_9	PF00759.11	Glycosyl hydrolase family 9	endoglucanase, cellobiohydrolase, β -glucosidase	0	2
GH10	Glyco_hydro_10	PF00331.12	Glycosyl hydrolase family 10	endo-1,4- β -xylanase, endo-1,3- β -xylanase	11	3
GH11	Glyco_hydro_11	PF00457.9	Glycosyl hydrolase family 11	Xylanase	0	0
GH12	Glyco_hydro_12	PF01670.8	Glycosyl hydrolase family 12	endoglucanase, xyloglucan hydrolase, β -1,3-1,4-glucanase, xyloglucan endotransglycosylase	0	0
GH13	Alpha-amylase	PF00128.16	Alpha amylase, catalytic domain	α -amylase, catalytic domains, and related enzymes	46	3
GH14	Glyco_hydro_14	PF01373.9	Glycosyl hydrolase family 14	β -amylase	0	0
GH15	Glyco_hydro_15	PF00723.13	Glycosyl hydrolase family 15	glucoamylase, glucodextranase, α , α -trehalase	0	0
GH16	Glyco_hydro_16	PF00722.13	Glycosyl hydrolase family 16	endo-1,4- β -galactosidase, endo-1,3- β -glucanase, endo-1,3(4)- β -glucanase, licheninase, β -agarase, others	4	0
GH17	Glyco_hydro_17	PF00322.9	Glycosyl hydrolase family 17	glucan endo-1,3- β -glucosidase, glucan 1,3- β -glucosidase, licheninase, β -1,3-glucan transglycosidase	0	1
GH18	Glyco_hydro_18	PF00704.20	Glycosyl hydrolase family 18	chitinase, endo- β -N-acetylglucosaminidase, others	3	0
GH19	Glyco_hydro_19	PF00182.11	Chitinase class I	Chitinase	0	0
GH20	Glyco_hydro_20	PF00728.14	Glycosyl hydrolase family 20	β -hexosaminidase, lacto-N-biosidase, β -1,6-N-acetylglucosaminidase	8	0
GH21	deleted family					
GH22	Lys	PF00062.12	C-type lysozyme/alpha-lactalbumin family	lysozyme type C, lysozyme type i, α -lactalbumin	0	0
GH23	SLT	PF01464.12	Transglycosylase SLT domain	lysozyme type G, peptidoglycan lyase	17	0

GH24	Phage_lysozyme	PF00959.11	Phage lysozyme	Lysozyme	6	1
GH25	Glyco_hydro_25	PF01183.12	Glycosyl hydrolase family 25	Lysozyme	21	1
GH26	Glyco_hydro_26	PF02156.7	Glycosyl hydrolase family 26	β -mannanase, β -1,3-xylanase	5	8
GH27	Melibiose	PF02065.10	Melibiose	α -galactosidase, α -N-acetylgalactosaminidase, isomalto-dextranase	21	4
GH28	Glyco_hydro_28	PF00295.9	Glycosyl hydrolase family 28	polygalacturonase, rhamnogalacturonase, others	2	1
GH29	Alpha_L_fucos	PF01120.9	Alpha-L-fucosidase	α -L-fucosidase	2	1
GH30	Glyco_hydro_30	PF02055.8	O-Glycosyl hydrolase family 30	glucosylceramidase, β -1,6-glucanase, β -xylosidase	0	1
GH31	Glyco_hydro_31	PF01055.13	Glycosyl hydrolases family 31	α -glucosidase, α -1,3-glucosidase, α -xylosidase	13	2
GH32	Glyco_hydro_32N	PF00251.12	Glycosyl hydrolases family 32 N terminal	levanase, invertase, others	11	0
GH33	BNR	PF02012.12	BNR/Asp-box repeat	sialidase, neuraminidase, trans-sialidase	0	0
GH34	Neur	PF00064.10	Neuraminidase	sialidase, neuraminidase	0	0
GH35	Glyco_hydro_35	PF01301.11	Glycosyl hydrolases family 35	β -galactosidase, exo- β -glucosaminidase	3	1
GH36	Blast search			α -galactosidase, α -N-acetylgalactosaminidase, stachyose synthase, raffinose synthase	26	4
GH37	Trehaalse	PF01204.10	Trehalase	α , α -trehalase	0	0
GH38	Glyco_hydro_38	PF01074.14	Glycosyl hydrolases family 38 N-terminal domain	α -mannosidase, N-mannosyl-oligosaccharide α -1,3-1,6-mannosidase	3	0
GH39	Glyco_hydro_39	PF01229.9	Glycosyl hydrolases family 39	α -L-iduronidase, β -xylosidase	1	0
GH40	deleted family					
GH41	deleted family					
GH42	Glyco_hydro_42	PF02449.7	Beta-galactosidase	β -galactosidase	8	1
GH43	Glyco_hydro_43	PF04616.6	Glycosyl hydrolases family 43	β -xylosidase, β -1,3-xylosidase, α -L-arabinofuranosidase, arabinanase, xylanase, galactan 1,3- β -galactosidase	10	9
GH44	Blast search			endoglucanase, xyloglucanase	0	0
GH45	Glyco_hydro_45	PF02015.8	Glycosyl hydrolases family 45	endoglucanase	0	0
GH46	Glyco_hydro_46	PF01374.10	Glycosyl hydrolases family 46	Chitosanase	0	0
GH47	Glyco_hydro_47	PF01532.12	Glycosyl hydrolases family 47	A-mannosidase	0	0
GH48	Glyco_hydro_48	PF02011.7	Glycosyl hydrolases family 48	endoglucanase, chitinase, cellobiohydrolases, endo-processive cellulases	0	0
GH49	Glyco_hydro_49	PF03718.5	Glycosyl hydrolases family 49	dextranase, isopullulanase, dextran 1,6- α -isomaltotriosidase	0	0
GH50	Blast search			β -agarase	0	0
GH51	Blast search			α -L-arabinofuranosidase, endoglucanase	12	1
GH52	Glyco_hydro_52	PF03512.5	Glycosyl hydrolases family 52	β -xylosidase	0	0
GH53	Glyco_hydro_53	PF07745.5	Glycosyl hydrolase family 53	endo-1,4- β -galactanase	9	0
GH54	ArabFuran-catal	PF09206.3	Alpha-L-arabinofuranosidase B, catalytic	α -L-arabinofuranosidase, β -xylosidase	0	0
GH55	Blast search			exo-1,3-glucanase, endo-1,3-glucanase	1	0
GH56	Glyco_hydro_56	PF01630.10	Hyaluronidase	hyaluronidase, chondroitin hydrolase	0	0

GH57	Glyco_hydro_57	PF03065.7	Glycosyl hydrolase family 57	α -amylase, 4- α -glucanotransferase, α -galactosidase, amylopullulanase	3	2
GH58	Blast search			endo-N-acetylneuraminidase or endo-sialidase	0	0
GH59	Glyco_hydro_59	PF02057.7	Glycosyl hydrolase family 59	galactocerebrosidase	0	0
GH60	Deleted family					
GH61	Glyco_hydro_61	PF03443.6	Glycosyl hydrolase family 61	endoglucanase	0	0
GH62	Glyco_hydro_62	PF03664.5	Glycosyl hydrolase family 62	α -L-arabinofuranosidase	0	0
GH63	Glyco_hydro_63	PF03200.8	Mannosyl oligosaccharide glucosidase	processing α -glucosidase, α -1,3-glucosidase, α -glucosidase	0	0
GH64	Blast search			β -1,3-glucanase	0	0
GH65	Glyco_hydro_65m	PF03632.7	Glycosyl hydrolase family 65 central catalytic domain	α , α -trehalase, maltose phosphorylase, trehalose phosphorylase, kojibiose phosphorylase	4	0
GH66	Blast search			cycloisomaltooligosaccharide glucanotransferase, dextranase	0	0
GH67	Glyco_hydro_67M	PF07488.4	Glycosyl hydrolase family 67 middle domain	α -glucuronidase, xylan α -1,2-glucuronosidase	5	0
GH68	Glyco_hydro_68	PF02435.8	Levansucrase/invertase	levansucrase, β -fructofuranosidase, inulosucrase	0	0
GH69	Deleted: now family PL16					
GH70	Glyco_hydro_70	PF02324.8	Glycosyl hydrolase family 70	dextransucrase, alternansucrase	0	0
GH71	Glyco_hydro_71	PF03659.6	Glycosyl hydrolase family 71	α -1,3-glucanase	0	0
GH72	Glyco_hydro_72	PF03198.6	Glycolipid anchored surface protein (GAS1)	β -1,3-glucanosyltransglycosylase	0	0
GH73	Glucosaminidase	PF01832.12	Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase	peptidoglycan hydrolase with endo- β -N-acetylglucosaminidase specificity	16	5
GH74	Blast search			endoglucanase, oligoxyloglucan reducing end-specific cellobiohydrolase, xyloglucanase	1	0
GH75	Chitosanase	PF07335.3	Fungal chitosanase	chitosanase	0	0
GH76	Glyco_hydro_76	PF03663.6	Glycosyl hydrolase family 76	α -1,6-mannanase	0	0
GH77	Glyco_hydro_77	PF02446.9	4- α -glucanotransferase	amylomaltase or 4- α -glucanotransferase	18	0
GH78	Bac_rhamnosid	PF05592.3	Bacterial alpha-L-rhamnosidase	α -L-rhamnosidase	25	0
GH79	Glyco_hydro_79n	PF03662.6	Glycosyl hydrolase family 79, N-terminal domain	β -glucuronidase, β -4-O-methyl-glucuronidase, heparanase	0	0
GH80	Blast search			chitosanase	0	0
GH81	Glyco_hydro_81	PF03639.5	Glycosyl hydrolase family 81	β -1,3-glucanase	0	0
GH82	Blast search			ι -carrageenase	0	0
GH83	HN	PF00423.11	Hemagglutinin-neuraminidase	neuraminidase	0	0
GH84	NAGidase	PF07555.5	Hyaluronidase	N-acetyl β -glucosaminidase, hyaluronidase	3	0
GH85	Glyco_hydro_85	PF03644.5	Glycosyl hydrolase family 85	endo- β -N-acetylglucosaminidase	0	0
GH86	Blast search			β -agarase	0	0
GH87	Blast search			mycodextranase, α -1,3-glucanase	0	0
GH88	Glyco_hydro_88	PF07470.5	Glycosyl hydrolase family 88	d-4,5 unsaturated β -glucuronyl hydrolase	8	1
GH89	NAGLU	PF05089.4	Alpha-N-acetylglucosaminidase	α -N-acetylglucosaminidase	0	0

GH90	Blast search			endorhamnosidase	0	0
GH91	Deleted: Now PL19					
GH92	Glyco_hydro_92	PF07971.4	Glycosyl hydrolase family 92	α -1,2-mannosidase	14	2
GH93	Blast search			exo-1,5- α -L-arabinanase	0	0
GH94	Blast search			cellobiose phosphorylase, cellodextrin phosphorylase, chitobiose phosphorylase, cyclic β -1,2-glucan synthase	18	7
GH95	Blast search			α -1,2-L-fucosidase, α -L-fucosidase	9	0
GH96	Blast search			α -agarase	0	0
GH97	Glyco_hydro_97	PF10566	Glycosyl hydrolase family 97	α -glucosidase, α -galactosidase	1	1
GH98	Glyco_hydro_98M	PF08306	Glycosyl hydrolase family 98	endo- β -galactosidase	1	0
GH99	Blast search			glycoprotein endo- α -1,2-mannosidase	0	0
GH100	Invertase_neut	PF04853.4	Plant neutral invertase	alkaline and neutral invertase	0	0
GH101	Blast search			endo- α -N-acetylgalactosaminidase	0	0
GH102	MltA	PF03562.9	MltA specific insert domain	peptidoglycan lytic transglycosylase	0	0
GH103	Blast search			peptidoglycan lytic transglycosylase	2	0
GH104	Phage_lysozyme	PF00959.11	Phage lysozyme	peptidoglycan lytic transglycosylase	see GH24	
GH105	Glyco_hydro_88	PF07470.5	Glycosyl hydrolase family 88	unsaturated rhamnogalacturonyl hydrolase	see GH88	
GH106	Blast search			α -L-rhamnosidase	9	0
GH107	Blast search			sulfated fucan endo-1,4-fucanase	0	0
GH108	DUF847	PF05838.4		N-acetylmuramidase	2	0
GH109	Blast search			α -N-acetylgalactosaminidase	3	0
GH110	Blast search			α -galactosidase, α -1,3-galactosidase	0	0
GH111	Blast search			eratan sulfate hydrolase (endo- β -N-acetylglucosaminidase)	0	0
GH112	Blast search			lacto-N-biose phosphorylase or galacto-N-biose phosphorylase	1	0
GH113	Blast search			β -mannanase	1	0
GH114	Blast search			endo- α -1,4-polygalactosaminidase	0	0
Carbohydrate binding domains						
CBM1	CBM_1	PF00734.10	Fungal cellulose binding domain	cellulose binding domain (mainly fungal, 1 viral)	0	0
CBM2	CBM_2	PF00553.11	Cellulose binding domain	cellulose binding domain	1	0
CBM3	CBM_3	PF00942.10	Cellulose binding domain	cellulose binding domain	0	0
CBM4	CBM_4_9	PF02018.9	Carbohydrate binding domain	xylan, β -1,3-glucan, β -1,3-1,4-glucan, β -1,6-glucan and amorphous cellulose binding domain	6	3
CBM5	CBM_5_12	PF02839.6	Carbohydrate binding domain	cellulose binding domain	0	0
CBM6	CBM_6	PF03422.7	Carbohydrate binding module (fam. 6)	amorphous cellulose and xylan-binding domain	3	6
CBM7	deleted entry					
CBM8	Blast search			cellulose binding domain	0	0

CBM9	CBM_4_9	PF02018.9	Carbohydrate binding domain	xylan, β -1,3-glucan, β -1,3-1,4-glucan, β -1,6-glucan and amorphous cellulose binding domain	see CBM4	
CBM10	CBM_10	PF02013.8	Cellulose or protein binding domain	cellulose binding domain	0	0
CBM11	CBM_11	PF03425.5	Carbohydrate binding domain (fam 11)	glucan binding domain	0	0
CBM12	CBM_5_12	PF02839.6	Carbohydrate binding domain	cellulose binding domain	see CBM5	
CBM13	Ricin_B_lectin	PF00652.14	Ricin-type beta-trefoil lectin domain	mannose and xylan binding	2	0
CBM14	CBM_14	PF01607.16	Chitin binding Peritrophin-A domain	chitin binding domain	0	0
CBM15	CBM_15	PF03426.6	Carbohydrate binding domain (fam 15)	xylan and xylooligosaccharides binding domain	0	0
CBM16	CBM_4_9	PF02018.9	Carbohydrate binding domain	cellulose and glucomannan binding domain	see CBM4	
CBM17	CBM_17_28	PF03424.6	Carbohydrate binding domain (family 17/28)	amorphous cellulose, cellooligosaccharides and derivatized cellulose binding domains	0	1
CBM18	Chitin_bind_1	PF00187.11	Chitin recognition protein	chitin binding domain	0	0
CBM19	CBM_19	PF03427.5	Carbohydrate binding domain (fam 19)	chitin binding domain	0	0
CBM20	CBM_20	PF00686.11	Starch binding domain	starch binding domain	3	0
CBM21	CBM_21	PF03370.5	Putative phosphatase regulatory subunit	starch binding domain (mainly eukaryotic, 1 bacterial)	1	0
CBM22	CBM_4_9	PF02018.9	Carbohydrate binding domain	xylan binding domain	see CBM4	
CBM23	Blast search			mannan binding domain	0	0
CBM24	Blast search			α -1,3-Glucan (mutan) binding domain	0	0
CBM25	CBM_25	PF03423.5	Carbohydrate binding domain (fam 25)	starch binding domain	0	0
CBM26	Blast search			starch binding domain	1	0
CBM27	CBM27	PF09212.2	Carbohydrate binding module 27	mannan binding domain	0	0
CBM28	CBM_17_28	PF03424.6	Carbohydrate binding domain (family 17/28)	non-crystalline cellulose, cellooligosaccharides, and β -(1,3)(1,4)-glucan	see CBM17	0
CBM29	Blast search			mannan/glucomannan binding domain	0	0
CBM30	Blast search			cellulose binding domain	0	0
CBM31	Blast search			β -1,3-xylan binding domain	0	0
CBM32	F5_F8_type_C	PF00754.17	F5/8 type C domain	galactose and lactose binding domain	6	1
CBM33	Chitin_bind_3	PF03067.7	Chitin binding domain	chitin binding domain	0	0
CBM34	Alpha-amylase_N	PF02903.6	Alpha amylase, N-terminal ig-like domain	starch binding domain, , associated with GH13	2	0
CBM35	Blast search			xylan, mannan and β -galactan binding domain	0	0
CBM36	Blast search			xylans and xylooligosaccharides binding domain	0	0
CBM37	Blast search			broad binding specificity	0	0
CBM38	Blast search			inulin binding domain	0	0
CBM39	Blast search			β -1,3-glucan binding domain	0	0
CBM40	Sialidase	PF02973.8	Sialidase, N-terminal domain	sialic acid binding domain	0	0
CBM41	PUD	PF03714.6	Bacterial pullanase-associated domain	α -glucans amylose, amylopectin, pullulan, and oligosaccharide binding domain	0	0
CBM42	AbfB	PF05270.5	Alpha-L-arabinofuranosidase B (ABFB)	arabinofuranose binding domain	0	0
CBM43	X8	PF07983.5	X8 domain	β -1,3-glucan binding domain	0	0
CBM44	Blast search			cellulose and xyloglucan binding domain	0	0

CBM45	Blast search			starch binding domain	0	0
CBM46	Blast search			cellulose binding domain	0	0
CBM47	F5_F8_type_C	PF00754.17	F5/8 type C domain	fucose binding domain	see CBM32	
CBM48	CBM_48	PF02922.10	Carbohydrate-binding module 48 (Isoamylase N-terminal domain)	glycogen binding domain, associated with GH13	22	0
CBM49	CBM_49	PF09478.2	Carbohydrate binding domain CBM49	crystalline cellulose binding domain	0	0
CBM50	LysM	PF01476.12	LysM domain	broad binding specificity	47	0
CBM51	NPCBM	PF08305.3	NPCBM/NEW2 domain	galactose binding domain	1	0
CBM52	Blast search			β -1,3-glucan binding domain (eukaryotic only)	0	0
CBM53	Blast search			unknown (eukaryotic only)	0	0
Carbohydrate esterases						
CE1	Blast search		Carbohydrate Esterase Family 1	acetyl xylan esterase, cinnamoyl esterase, feruloyl esterase	0	0
CE2	Blast search		Carbohydrate Esterase Family 2	acetyl xylan esterase	0	0
CE3	Blast search		Carbohydrate Esterase Family 3	acetyl xylan esterase	0	0
CE4	Polysacc_deac_1	PF01522.13	Polysaccharide deacetylase	acetyl xylan esterase, chitin deacetylase, chitooligosaccharide deacetylase	24	0
CE5	Blast search		Carbohydrate Esterase Family 5	acetyl xylan esterase, cutinase	0	0
CE6	Blast search		Carbohydrate Esterase Family 6	acetyl xylan esterase	0	0
CE7	Blast search		Carbohydrate Esterase Family 7	acetyl xylan esterase, cephalosporin-C deacetylase	3	0
CE8	Pectinesterase	PF01095.11	Pectinesterase	pectin methylesterase	3	0
CE9	Blast search		Carbohydrate Esterase Family 9	N-acetylglucosamine 6-phosphate deacetylase, N-acetylgalactosamine-6-phosphate deacetylase	14	0
CE10	Blast search		Carbohydrate Esterase Family 10	Arylesterase, carboxyl esterase, acetylcholinesterase, cholinesterase, sterol esterase, brefeldin A esterase	18	3
CE11	LpxC	PF03331.5	UDP-3-0-acyl N-acetylglucosamine deacetylase	UDP-3-0-acyl N-acetylglucosamine deacetylase	2	0
CE12	Blast search		Carbohydrate Esterase Family 12	pectin acetylesterase, rhamnogalacturonan acetylesterase, acetyl xylan esterase	6	0
CE13	Blast search		Carbohydrate Esterase Family 13	pectin acetylesterase	0	0
CE14	PIG-L	PF02585.9	GlcNAc-PI de-N-acetylase	N-acetyl-1-D-myo-inositol-2-amino-2-deoxy- α -D-glucopyranoside deacetylase, diacetylchitobiose deacetylase, mycothiol S-conjugate amidase	1	0
CE15	Blast search		Carbohydrate Esterase Family 15	4-O-methyl-glucuronoyl methylesterase	0	0
CE16	Blast search		Carbohydrate Esterase Family 16	acetylesterase	0	0
Polysaccharide lyases						
PL1	Pec_lyase_C	PF00544.11	Pectate lyase	pectate lyase, exo-pectate lyase, pectin lyase	1	0
PL2	Blast search		Polysaccharide Lyase Family 2	pectate lyase, exo-polygalacturonate lyase	0	0
PL3	Pectate_lyase	PF03211.6	Pectate lyase	pectate lyase	0	0

PL4	Blast search		Polysaccharide Lyase Family 4	rhamnogalacturonan lyase	0	0
PL5	Alginate_lyase	PF05426.5	Alginate lyase	alginate lyase	1	0
PL6	Blast search		Polysaccharide Lyase Family 6	alginate lyase, chondroitinase B	0	0
PL7	Blast search		Polysaccharide Lyase Family 7	alginate lyase, α -L-gulonate lyase	0	1
PL8	Lyase_8	PF02278.11	Polysaccharide Lyase Family 8	hyaluronate lyase, chondroitin AC lyase, xanthan lyase, chondroitin ABC lyase	0	0
PL9	Blast search		Polysaccharide Lyase Family 9	pectate lyase, exopolysaccharide lyase	0	0
PL10	Blast search		Polysaccharide Lyase Family 10	pectate lyase	0	0
PL11	Blast search		Polysaccharide Lyase Family 11	rhamnogalacturonan lyase	0	0
PL12	Blast search		Polysaccharide Lyase Family 12	heparin-sulfate lyase	0	0
PL13	Blast search		Polysaccharide Lyase Family 13	heparin lyase	0	0
PL14	Blast search		Polysaccharide Lyase Family 14	alginate lyase, polysaccharide lyase acting on glucuronic acid	0	0
PL15	Blast search		Polysaccharide Lyase Family 15	oligo-alginate lyase	0	0
PL16	Blast search		Polysaccharide Lyase Family 16	hyaluronan lyase	0	0
PL17	Blast search		Polysaccharide Lyase Family 17	alginate lyase	0	0
PL18	Blast search		Polysaccharide Lyase Family 18	alginate lyase	0	0
PL19	Blast search		Polysaccharide Lyase Family 19	inulin lyase, di-fructofuranose 1,2':2,3' dianhydride hydrolase	0	0
PL20	Blast search		Polysaccharide Lyase Family 20	endo- β -1,4-glucuronan lyase	0	0
PL21	Blast search		Polysaccharide Lyase Family 21	heparin lyases	0	0
Other domains associated with GH catalytic or carbohydrate binding domains						
	AXE1	PF05448.5	Acetyl xylan esterase	Acetyl xylan esterases	8	5
	Alpha-amylase_C	PF02806.10	Alpha amylase, C-terminal all-beta domain	associated with GH13	11	1
	Alpha-L-AF_C	PF06964.4	Alpha-L-arabinofuranosidase C-terminus	associated with GH51	13	1
	Alpha-mann_mid	PF09261.3	Alpha mannosidase, middle domain	associated with GH38	0	0
	Bac_rhamnosid_N	PF08531.2	Alpha-L-rhamnosidase N-terminal domain	associated with GH78	20	0
	Big_1	PF02369.8	Bacterial Ig-like domain (group 1)	bacterial Ig-like domain (group 1)	0	0
	Big_2	PF02368.10	Bacterial Ig-like domain (group 2)	bacterial Ig-like domain (group 2)	30	2
	Big_3	PF07523.4	Bacterial Ig-like domain (group 3)	bacterial Ig-like domain (group 3)	0	0
	Big_4	PF07532.3	Bacterial Ig-like domain (group 4)	bacterial Ig-like domain (group 4)	1	0
	Bgal_small_N	PF02929.9	Beta galactosidase small chain	dimeric beta-galactosidases, small chain; associated with GH2	6	1
	CBM_X	PF06204.3	Putative carbohydrate binding domain	carbohydrate binding domain, associated with GH94	13	7
	CelD_N	PF02927.6	N-terminal ig-like domain of cellulase	associated with GH9	0	2
	CHB_HEX	PF03173.5	Putative carbohydrate binding domain	associated with GH20	0	0
	CHB_HEX_C	PF03174.5	Chitobiase/beta-hexosaminidase C-terminal domain	associated with GH20	1	0
	ChiC	PF06483.3	Chitinase C	associated with GH18	0	0

ChitinaseA_N	PF08329.2	Chitinase A, N-terminal domain	associated with GH18	0	0
Cohesin	PF00963.10	Cohesin domain	Cohesin domain	0	0
Dockerin_1	PF00404.10	Dockerin type I repeat	Dockerin type I repeat	41	1
fn3	PF00041.13	Fibronectin type III domain	Fibronectin type III domain	7	0
GDE_C	PF06202	Amylo-alpha-1,6-glucosidase	amylo-alpha-1,6-glucosidase	6	2
Glucodextran_B	PF09136.2	Glucodextranase, domain B	associated with GH15	0	0
Glucodextran_N	PF09137.3	Glucodextranase, domain N	associated with GH15	0	0
Glyco_hydro_2_N	PF02837	Glycosyl hydrolases family 2, sugar binding domain	β -galactosidase, β -mannosidase, β -glucuronidase	67	4
Glyco_hydro_2	PF00703.13	Glycosyl hydrolases family 2, immunoglobulin-like beta-sandwich domain	β -galactosidase, β -mannosidase, β -glucuronidase	19	2
Glyco_hydro_3_C	PF01915.14	Glycosyl hydrolase family 3 C terminal domain	β -glucan binding? associated with GH3	45	2
Glyco_hydro_20b	PF02838.7	Glycosyl hydrolase family 20, domain 2	domain 2	0	0
Glyco_hydro_32C	PF08244.4	Glycosyl hydrolases family 32 C terminal	C-terminal domain	10	0
Glyco_hydro_38C	PF07748.5	Glycosyl hydrolases family 38 C-terminal domain	C-terminal domain	1	0
Glyco_hydro_42M	PF08532.2	Beta-galactosidase trimerisation domain	trimerisation domain	6	0
Glyco_hydro_42C	PF08533.2	Beta-galactosidase C-terminal domain	C-terminal domain	4	0
Glyco_hydro_65N	PF03636.7	Glycosyl hydrolase family 65, N-terminal domain	N-terminal domain	3	0
Glyco_hydro_65C	PF03633.7	Glycosyl hydrolase family 65, C-terminal domain	C-terminal domain	1	0
Glyco_hydro_67N	PF03648.6	Glycosyl hydrolase family 67 N-terminus	N-terminal domain	0	0
Glyco_hydro_67C	PF07477.4	Glycosyl hydrolase family 67 C-terminus	C-terminal domain	1	0
Glyco_hydro_98C	PF08307.3	Glycosyl hydrolase family 98 C-terminal domain	C-terminal domain	1	0
Glyco_transf_36	PF06165.3	Glycosyltransferase family 36	associated with GH94	13	7
GT36_AF	PF06205.3	Glycosyltransferase 36 associated family	associated with GH94	9	6
He_PIG	PF05345.4	Putative Ig domain	Putative Ig domain	0	0
PKD	PF00801.12	PKD domain	PKD domain	17	0
TIG	PF01833.16	IPT/TIG domain	Ig-like domain	0	0
SusD	PF07980.4	SusD family	carbohydrate binding domain	42	7
TonB_dep_rec (SusC)	PF00593.17	TonB_dep_rec (SusC)	interacts with SusD / transport	36	15

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