

Shi et al., Table S3

Pfam ID	Pfam HMM name	Known activities	GH	CW	TM
Glycoside hydrolase catalytic domains					
pfam00232	GH_1	β -Glucosidase, β -galactosidase, β -mannosidase, others	34	181	27
pfam00703	GH_2	β -galactosidase, β -mannosidase, others	1	9	33
pfam02836	GH_2_C	β -galactosidase, β -mannosidase, others	1	13	40
pfam02837	GH_2_N	Sugar-binding domain	1	10	48
pfam00933	GH_3	β -glucosidase, xylan1,4- β -xylosidase, β -N-acetylhexosaminidase, others	4	22	109
pfam01915	GH_3_C	C terminal domain (glucan-binding)	2	22	61
pfam02056	GH_4	β -Glucosidase, α -galactosidase, others	5	18	20
pfam11975	GH_4C	C-terminal domain	5	16	26
pfam00150	GH_5	Cellulase	1	1	125
pfam01270	GH_8	Cellulase, Chitosanase, Endoglucanase Y, others	1	0	21
pfam00759	GH_9	Endoglucanase, cellobiohydrolase	0	0	44
pfam00331	GH_10	Xylanase, β -1,3-endoxylanase	0	0	101
pfam00457	GH_11	Xylanase	0	0	19
pfam00128	Alpha_amylase	Alpha amylase, catalytic domain	18	18	119
pfam02806	Alpha_amylase_N	Alpha amylase, N-terminal ig-like domain	2	2	1
pfam02903	Alpha_amylase_C	Alpha amylase, C-terminal all-beta domain	2	2	8
pfam00723	GH_15	Glucoamylase, glucodextranase, α , α -trehalase	1	0	0
pfam00722	GH_16	β -1,3(4)-Endoglucanase, others	0	0	6
pfam00704	GH_18	Chitinase, endo- β -N-acetylglucosaminidase, others	4	2	28
pfam00182	GH_19	Chitinase	1	0	1
pfam00728	GH_20	β -Hexosaminidase, lacto-N-biosidase	2	5	18
pfam02838	GH_20b	N-acetyl-beta-hexosaminidase, domain 2	1	0	5
pfam01464	SLT	Soluble lytic murein transglycosylase and related regulatory proteins	8	2	63
pfam01183	GH_25	Lysozyme M1 (1,4- β -N-acetylmuramidase)	1	2	4
pfam02156	GH_26	β -mannanase, β -1,3-xylanase	0	0	20
pfam02065	Melibiose	α -galactosidase, Melibiase	0	12	13
pfam00295	GH_28	Endopolygalacturonase, others	2	8	15
pfam02055	GH_30	glucosylceramidase	0	0	13
pfam01055	GH_31	α -glucosidase, others	12	18	37
pfam08244	GH_32C	C-terminal domain; β -fructosidases	0	2	0
pfam00251	GH_32N	N-terminal domain, β -fructosidases, β -xylosidase	0	5	2
pfam01301	GH_35	β -galactosidase	0	10	6
pfam01074	GH_38	α -mannosidase	2	11	18
pfam07748	GH_38C	C-terminal domain	2	5	26
pfam01229	GH_39	β -xylosidase, α -L-iduronidase	0	3	15
pfam02449	GH_42	β -galactosidase	0	29	39
pfam08533	GH_42C	C-terminal domain	1	5	9

pfam08532	GH_42M	β -galactosidase trimerisation domain	0	18	27
pfam04616	GH_43	β -xylosidase, α -L-arabinofuranosidase, arabinanase, and xylanase	4	32	63
pfam02015	GH_45	Endoglucanase	0	0	6
pfam03512	GH_52	β -xylosidase	0	0	3
pfam07745	GH_53	Arabinogalactan, endo-1,4- β -galactosidase	1	3	21
pfam03065	GH_57	α -amylase, α -mannosidase, others	0	0	52
pfam03633	GH_65C	C-terminal domain, Trehalose and maltose hydrolases	0	3	3
pfam03632	GH_65m	Central catalytic domain, Trehalose and maltose hydrolases	1	19	11
pfam03636	GH_65N	N-terminal domain, Trehalose and maltose hydrolases	1	12	4
pfam07477	GH_67C	C-terminal domain, α -glucuronidase	0	2	12
pfam07488	GH_67M	Middle domain, α -glucuronidase	0	1	14
pfam03648	GH_67N	N-terminal domain, α -glucuronidase	0	0	6
pfam03663	GH_76	α -1,6-mannanases	0	1	0
pfam02446	GH_77	4-alpha-glucanotransferase, amylomaltase	5	2	34
pfam03662	GH_79N	N-terminal domain	0	0	1
pfam03644	GH_85	Endo- β -N-acetylglucosaminidase D	0	3	0
pfam07470	GH_88	Unsaturated glucuronyl hydrolase	4	14	19
pfam07971	GH_92	α -1,2-mannosidases	0	7	3
pfam10566	GH_97	α -glucosidase, α -galactosidase	0	0	1
pfam08306	GH_98M	Endo- β -galactosidase	0	0	1
Total of GH family enzymes			130	550	1421
Carbohydrate Binding Modules (CBM)					
pfam02018	CBM_4_9	Amorphous cellulose-, xylan- and glucan-binding domain	0	0	9
pfam02839	CBM_5_12	C-terminal cellulose-binding domain of endoglucanase	2	0	0
pfam02922	CBM_48	Isoamylase N-terminal domain	8	6	22
pfam03422	CBM_6	Amorphous cellulose- and xylan-binding domain	0	0	18
pfam03425	CBM_11	Glucan-binding domain	0	0	12
pfam06204	CBM_X	Putative carbohydrate binding domain	0	0	47
pfam08305	NPCBM	NPCBM/NEW2 domain	0	0	4
pfam09212	CBM27	β -1, 4-mannooligosaccharides, carob galactomannan, and konjac glucomannan-binding domain	0	0	1
Total of CBM			10	6	113
Glycosyl Transferases					
pfam00852	GT_10	Galactoside, 3(4)-L-fucosyltransferase, and galactoside 3-fucosyltransferase	0	0	1
pfam00982	GT_20	α , α -trehalose-phosphate synthase [UDP-forming]	2	0	0
pfam01075	GT_9	lipopolysaccharide N-acetylglucosaminyltransferase, heptosyltransferase	8	1	4
pfam01501	GT_8	lipopolysaccharide galactosyltransferase, lipopolysaccharide glucosyltransferase, others	1	2	6
pfam01755	GT_25	lipopolysaccharide biosynthesis protein	1	0	0
pfam03033	GT_28	β -galactosyltransferase, β -glucosyltransferase, β -N-acetylglucosamine transferase	2	3	20

pfam06165	GT_36	cellobiose phosphorylase, cellodextrin phosphorylase, and chitobiose phosphorylase	0	0	59
pfam08323	GT_5	glycogen/starch synthases, ADP-glucose type	2	4	32
Total of GT enzymes			16	10	122