

TABLE 2 | Continued

CAZy family (GH)	Substrate specificities	<i>B. asteroides</i> PRL2011	<i>B. bifidum</i> ATCC29521	<i>B. bifidum</i> BGN4	<i>B. bifidum</i> PRL2010	<i>B. bifidum</i> S17	<i>B. breve</i> 12L	<i>B. breve</i> 6589b	<i>B. breve</i> ACS-071-V-Sch8b	<i>B. breve</i> DSM20213	<i>B. breve</i> JCM7017	<i>B. breve</i> JCM7019	<i>B. breve</i> NCFB2258	<i>B. breve</i> S27	<i>B. breve</i> UCC2003	<i>B. catenulatum</i> DSM 16992	<i>B. coryneforme</i> LMG 18911	<i>B. dentium</i> Bd1	<i>B. dentium</i> JCM1195	<i>B. indicum</i> LMG 11587
1	β -glucosidase, β -galactosidase	0	2	1	1	1	1	1	2	1	2	3	1	2	2	0	1	2	2	1
2	β -galactosidase	2	3	3	3	3	2	3	4	2	2	4	3	3	5	4	0	6	6	0
3	β -glucosidase, β -hexosaminidase, β -D-glucosideglucohydrolase,	4	1	1	1	1	3	6	5	6	4	4	5	4	3	7	4	11	12	4
4	6-phospho- β -glucosidase	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	β -mannosidase, β -glucosidase, β -exoglucanase	1	0	0	0	0	2	2	2	2	2	2	2	2	2	2	0	4	4	0
13	α -1,4-glucosidase, amylopullulanase, sucrose phosphorylase, α -amylase	4	7	7	9	7	14	14	13	12	13	12	13	12	14	9	2	14	14	2
16	Adenine glycosylase	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Chitinase	0	0	0	0	0	1	2	1	0	1	1	1	2	1	0	0	0	0	0
20	β -hexosaminidase	0	4	4	4	4	1	1	1	1	1	1	1	1	1	0	0	0	0	0
23	Transglycosylase	2	2	3	2	2	4	3	2	3	3	2	3	3	2	3	2	3	3	2
25	β -N-acetylmuramidase	0	3	1	2	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1
26	Endo-1, 4- β -mannosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
27	α -galactosidase	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
28	Galacturan 1, 4- α -galacturonidase, pectinesterase	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	α -L-fucosidase	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0
30	β -D-xylosidase, endo-1, 6- β -glucosidase, Glucosylceramidase	3	0	0	0	0	0	1	0	0	0	1	0	0	1	1	3	1	1	3
31	α -xylosidase	3	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	4	4	1
32	β -fructofuranosidase, sucrose-6-phosphate hydrolase	1	2	0	0	0	1	1	1	1	2	1	1	2	2	2	2	2	2	2
33	Sialidase	0	4	3	3	3	1	1	1	1	1	1	1	1	1	0	0	0	0	0
35	β -galactosidase	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
36	α -galactosidase, raffinose synthase,	2	1	1	1	1	3	2	2	2	2	3	2	2	2	4	2	5	5	2
38	α -mannosidase	2	0	0	0	0	2	2	2	2	2	3	3	2	3	1	0	0	0	0
39	β -xylosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
42	β -galactosidase	2	2	2	2	1	2	2	3	2	3	2	2	2	2	3	2	4	4	2
43	Endo-1, 5- α -L-arabinosidase, α -L-arabinofuranosidase, Endo-1,4- β -xylanase, β -1, 4-xylosidase	9	3	2	2	2	0	1	1	1	1	0	0	0	0	7	3	12	12	3
51	α -L-arabinofuranosidase	2	1	1	1	1	0	0	0	0	0	0	0	0	0	3	1	2	2	0
53	Endogalactanase	0	0	0	0	0	1	1	1	0	1	0	1	1	1	0	0	2	2	0

(Continued)

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CAZy family (GH)	Substrate specificities	<i>B. asteroides</i> PRL2011	<i>B. bifidum</i> ATCC29521	<i>B. bifidum</i> BGN4	<i>B. bifidum</i> PRL2010	<i>B. bifidum</i> S17	<i>B. breve</i> 12L	<i>B. breve</i> 6589b	<i>B. breve</i> ACS-071-V-Sch8b	<i>B. breve</i> DSM20213	<i>B. breve</i> JCM7017	<i>B. breve</i> JCM7019	<i>B. breve</i> NCFB2258	<i>B. breve</i> S27	<i>B. breve</i> UCC2003	<i>B. catenulatum</i> DSM 16992	<i>B. coryneforme</i> LMG 18911	<i>B. dentium</i> Bd1	<i>B. dentium</i> JCM1195	<i>B. indicum</i> LMG 11587
59	β -galactosidase/galactocerebrosidase	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
65	Kojibiose phosphorylase	1	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	1
67	α -glucuronidase	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	4- α -glucanotransferase	0	1	1	1	1	2	2	2	2	2	2	2	2	2	2	0	2	2	0
78	α -L-rhamnosidase	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1	1	1
84	α -L-rhamnosidase	0	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	Endo- β -N-acetylglucosaminidase D	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0
89	α -N-acetylglucosaminidase, β -N-hexosaminidase	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	Cellobiose-phosphorylase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
95	α -L-fucosidase	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
101	endo- α -N-acetylgalactosaminidase	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	rhamnogalacturonyl hydrolase, d-4,5-unsaturated β -glucuronyl hydrolase	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	Exo- α -galactosidase	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	Lacto-N-biose phosphorylase	0	2	2	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0
115	xylan α -1, 2-glucuronidase, α -(4-O-methyl)-glucuronidase	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	β -xylosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
121	β -galactosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0
123	Glycosphingolipid β -N-acetylgalactosaminidase	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	Exo- α -1, 6-mannosidase	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	0
127	β -L-arabinofuranosidase	0	0	0	0	0	1	1	0	1	0	2	1	1	0	3	0	2	2	0
129	α -N-acetylgalactosaminidase	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0
NC	Unknown	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	0
Total		48	48	41	43	39	47	55	49	45	51	54	51	50	55	57	26	87	88	25

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CAZy family (GH)	Substrate specificities	<i>B. kashiwanohense</i> JCM 15439	<i>B. kashiwanohense</i> PV20-2	<i>B. longum</i> 105-A	<i>B. longum</i> BXY01	<i>B. longum</i> DJO10A	<i>B. longum</i> NCC2705	<i>B. longum</i> subsp. <i>infantis</i> 157F	<i>B. longum</i> subsp. <i>infantis</i> ATCC-15697	<i>B. longum</i> subsp. <i>infantis</i> JCM1222	<i>B. longum</i> subsp. <i>longum</i> BBMN68	<i>B. longum</i> subsp. <i>longum</i> F8	<i>B. longum</i> subsp. <i>longum</i> GT15	<i>B. longum</i> subsp. <i>longum</i> JCM1217	<i>B. longum</i> subsp. <i>longum</i> JDM301	<i>B. longum</i> subsp. <i>longum</i> KACC91563	<i>B. pseudocatenulatum</i> D2CA	<i>B. pseudocatenulatum</i> DSM20438	<i>B. pseudolongum</i> PV8-2	<i>B. scardovii</i> JCM12489	<i>B. thermophilum</i> RBL67
1	β -glucosidase, β -galactosidase	2	1	1	0	0	0	0	1	1	0	0	0	0	0	1	0	1	1	0	
2	β -galactosidase	4	2	2	3	2	2	2	2	3	1	2	2	2	2	2	2	4	3	7	0
3	β -glucosidase, β -hexosaminidase, β -D-glucosidase, glucosylhydrolase,	5	6	6	3	3	3	5	2	2	4	3	5	4	3	4	5	5	2	10	1
5	β -mannosidase, β -glucosidase, β -exoglucanase	1	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	2	0	2	3
8	Xylanase	2	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0
10	Endoxylanase	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	α -1, 4-glucosidase, amylopullulanase, sucrose phosphorylase, α -amylase	9	8	8	12	13	8	11	8	9	13	10	12	13	12	13	15	17	13	12	14
16	Adenine glycosylase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18	Chitinase	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	1	1
20	β -hexosaminidase	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1	1	1	0	3	0
23	Transglycosylase	4	1	1	2	4	3	3	2	2	2	3	3	2	2	3	1	3	2	3	2
25	β -N-acetylmuramidase	1	1	1	0	1	0	1	4	4	1	1	0	1	0	0	1	1	1	4	1
26	Endo-1, 4- β -mannosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
27	α -galactosidase	1	0	0	1	1	1	1	0	0	1	0	1	1	1	1	1	1	0	1	0
28	Galacturan 1,4- α -galacturonidase, pectinesterase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
29	α -L-fucosidase	2	0	0	1	0	0	0	3	3	0	0	0	0	1	0	0	0	0	2	0
30	β -D-xylosidase, endo-1, 6- β -glucosidase, Glucosylceramidase	1	0	0	1	1	1	1	0	0	2	0	1	2	1	1	2	1	1	2	0
31	α -xylosidase	3	2	2	1	3	3	2	0	0	2	3	1	2	1	2	3	2	1	6	1
32	β -fructofuranosidase, sucrose-6-phosphate hydrolase	2	2	2	2	1	1	1	2	2	1	1	2	1	2	1	1	1	1	2	2
33	Sialidase	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0
35	β -galactosidase	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
36	α -galactosidase, raffinose synthase,	2	2	2	2	2	1	1	1	1	2	2	1	2	2	2	3	3	4	12	2
38	α -mannosidase	1	1	1	3	3	3	2	2	2	2	2	2	0	3	0	0	0	0	2	0
39	β -xylosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0

(Continued)

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42	β -galactosidase	3	3	3	4	3	2	3	3	3	2	2	3	2	4	2	3	4	2	6	1
43	Endo-1, 5- α -L-arabinosidase, α -L-arabinofuranosidase, Endo-1,4- β -xylosidase, β -1, 4-xylosidase	9	6	6	10	11	9	7	1	1	11	7	7	11	10	8	12	15	7	17	0
50	β -agarase	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
51	α -L-arabinofuranosidase	2	1	1	4	5	5	4	1	1	3	4	4	4	4	4	2	3	1	6	1
53	Endogalactanase	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0
59	β -galactosidase/galactocerebrosidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
65	Kojibiose phosphorylase	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
76	α -1, 6-mannanase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
77	4- α -glucanotransferase	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
78	α -L-rhamnosidase	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
85	Endo- β -N-acetylglucosaminidase D	0	0	0	1	1	1	1	0	0	1	1	1	0	1	0	0	0	0	0	0
94	Cellobiose-phosphorylase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
95	α -L-fucosidase	1	1	1	1	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0
101	endo- α -N-acetylgalactosaminidase	0	0	0	0	1	1	1	0	0	1	0	1	1	0	1	0	0	0	0	0
112	Lacto-N-biose phosphorylase	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0
115	xylan α -1, 2-glucuronidase, α -(4-O-methyl)-glucuronidase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
120	β -xylosidase	1	0	0	1	2	0	1	0	0	0	1	1	0	1	1	1	2	0	1	0
121	β -galactosidase	0	0	0	0	0	1	1	0	0	1	1	1	1	0	1	0	1	0	0	0
125	Exo- α -1, 6-mannosidase	0	0	0	1	1	1	1	0	1	1	1	1	0	1	0	0	0	0	1	0
127	β -L-arabinofuranosidase	1	0	0	1	1	2	2	0	0	2	2	2	2	1	2	0	1	0	2	0
129	α -N-acetylgalactosaminidase	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	0
130	β -mannose phosphorylase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NC	Unknown	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0
Total		63	44	44	65	67	56	61	46	49	60	54	59	59	64	55	60	74	42	126	31