

**Table 2. *B. thetaiotaomicron* glycoside hydrolase and polysaccharide lyase genes regulated by the presence of *M. smithii* in vivo**

CAZy Group	% of Group*	Gene ID	Annotation**	GeneChip	
				Fold difference	P value
<b>Up-regulated genes (Bt/Ms vs. Bt alone)</b>					
Glycoside Hydrolase Family 32	75	BT1765	Levanase precursor (2,6-beta-D-fructofuranosidase)	7.6	4.51E-03
		BT1759	Levanase precursor (2,6-beta-D-fructofuranosidase)	6.3	5.24E-03
		BT3082	2,6-beta-D-fructofuranosidase precursor	5.4	4.34E-03
Glycoside Hydrolase Family 13	10	BT1663	Pullulanase precursor	4.8	6.03E-03
Glycoside Hydrolase Family 2	3	BT4667	Beta-galactosidase	3.4	2.68E-02
Glycoside Hydrolase Family 23	33	BT3999	Lytic murein transglycosylase D precursor	4.0	1.67E-02
Glycoside Hydrolase Family 3	20	BT1872	Periplasmic beta-glucosidase precursor	5.9	4.49E-03
		BT2439	Beta-N-acetylglucosaminidase	2.6	3.50E-02
Glycoside Hydrolase Family 76	10	BT1883	Putative alpha-1,6-mannanase	3.7	9.75E-03
Glycoside Hydrolase Family 88	25	BT4658	Glucuronyl hydrolase	2.5	4.30E-02
Glycoside Hydrolase Family 95	20	BT4682	Conserved hypothetical protein	2.5	4.51E-02
Glycoside Hydrolase Family 97	20	BT1871	Putative alpha-glucosidase	4.8	9.99E-03
		BT3664	Putative alpha-glucosidase	4.4	7.54E-03
<b>Down-regulated genes (Bt/Ms vs. Bt alone)</b>					
Glycoside Hydrolase Family 2	18	BT1626	Beta-galactosidase	-10.5	5.20E-05
		BT3292	Beta-glucuronidase	-4.6	6.12E-03
		BT0757	Beta-galactosidase	-4.4	7.07E-03
		BT0996	Beta-galactosidase	-4.2	5.04E-03
		BT2969	Beta-galactosidase	-3.7	8.80E-03
		BT2432	Beta-mannosidase precursor	-3.3	1.85E-02
Glycoside Hydrolase Family 3	30	BT1778	Beta-glucosidase (gentiobiase)	-5.2	1.32E-03
		BT1780	Periplasmic beta-glucosidase precursor	-4.2	4.77E-03
Glycoside Hydrolase Family 18	29	BT1048	Putative secreted endoglycosidase	-3.2	1.72E-02
		BT2825	Chitinase	-2.8	3.52E-02
Glycoside Hydrolase Family 20	40	BT3868	Beta-N-hexosaminidase, glycosyl hydrolase family 20	-4.5	3.33E-03
		BT4337	Beta-hexosaminidase precursor	-4.0	1.28E-02
		BT0459	Beta-hexosaminidase precursor	-3.7	1.15E-02
		BT1621	Beta-hexosaminidase precursor	-3.5	1.57E-02
		BT4394	Beta-hexosaminidase precursor	-3.2	2.57E-02
		BT1051	Beta-hexosaminidase precursor	-3.0	2.98E-02
Glycoside Hydrolase Family 27	60	BT3592	Alpha-galactosidase precursor	-5.5	4.80E-03
		BT3065	Alpha-galactosidase precursor	-5.1	5.53E-03
		BT4157	Alpha-galactosidase precursor	-3.7	8.93E-03
Glycoside Hydrolase Family 28	33	BT4153	Exopolygalacturonase precursor	-5.4	2.87E-03
		BT1018	Polygalacturonase (Pectinase)	-2.6	3.60E-02
		BT0127	Putative transmembrane protein	-2.5	4.57E-02
Glycoside Hydrolase Family 29	44	BT3798	Conserved hypothetical protein	-4.4	3.00E-03
		BT1842	Alpha-L-fucosidase precursor	-3.0	2.52E-02
		BT2192	Conserved hypothetical protein	-2.9	2.32E-02
		BT3956	Conserved hypothetical protein	-2.9	3.00E-02
Glycoside Hydrolase Family 30	50	BT3026	Glycosylhydrolase, putative xylanase	-4.7	2.30E-03
Glycoside Hydrolase Family 31	50	BT3299	Alpha-glucosidase II	-5.1	2.16E-03
		BT3085	Alpha-xylosidase	-4.0	5.91E-03
		BT3659	Alpha-xylosidase	-4.0	5.31E-03
Glycoside Hydrolase Family 36	33	BT2851	Alpha-galactosidase (melibiase)	-3.5	1.27E-02

Glycoside Hydrolase Family 43	23	BT1873	Endo-arabinase	-6.4	5.10E-04
		BT3467	Putative glycosylhydrolase	-6.1	8.25E-04
		BT3685	Conserved hypothetical protein	-4.4	3.75E-03
		BT3094	Putative secreted xylosidase	-3.9	9.76E-03
		BT0360	Putative arabinan endo-1,5-alpha-L-arabinosidase	-3.2	2.49E-02
		BT3108	Putative beta-xylosidase	-2.8	2.75E-02
		BT4185	Xylosidase/arabinosidase	-2.5	4.58E-02
Glycoside Hydrolase Family 57	100	BT4305	Putative alpha-amylase	-4.1	5.28E-03
Glycoside Hydrolase Family 66	100	BT3087	Cycloisomaltooligosaccharide glucanotransferase	-2.7	3.89E-02
Glycoside Hydrolase Family 67	100	BT2622	Alpha-glucuronidase	-3.1	1.86E-02
Glycoside Hydrolase Family 76	20	BT3521	Alpha-1,6-mannanase	-3.2	1.62E-02
		BT2631	Putative hydrolase	-2.4	4.99E-02
Glycoside Hydrolase Family 78	67	BT1013	Putative alpha-rhamnosidase	-5.7	1.55E-03
		BT1019	Putative secreted hydrolase	-4.0	6.00E-03
		BT4076	Alpha-rhamnosidase	-3.1	1.93E-02
		BT2523	Alpha-rhamnosidase	-2.5	3.99E-02
Glycoside Hydrolase Family 88	50	BT2913	Unsaturated glucuronylhydrolase	-4.6	2.72E-03
		BT3348	Putative unsaturated glucuronyl hydrolase	-4.2	4.30E-03
Glycoside Hydrolase Family 89	67	BT0438	Alpha-N-acetylglucosaminidase precursor	-4.4	5.23E-03
		BT4359	Alpha-N-acetylglucosaminidase precursor	-3.9	7.28E-03
Glycoside Hydrolase Family 92	39	BT3527	Alpha-1,2-mannosidase	-4.6	2.53E-03
		BT3991	Putative alpha-1,2-mannosidase	-3.4	1.11E-02
		BT3130	Conserved hypothetical protein	-3.2	2.83E-02
		BT4092	Putative alpha-1,2-mannosidase	-3.1	1.71E-02
		BT3530	Putative alpha-1,2-mannosidase	-2.8	3.27E-02
		BT1878	Conserved hypothetical protein	-2.7	3.00E-02
		BT2629	Putative alpha-1,2-mannosidase	-2.7	3.03E-02
		BT3994	Putative alpha-1,2-mannosidase	-2.5	4.11E-02
		BT3965	Conserved hypothetical protein	-2.4	4.54E-02
Glycoside Hydrolase Family 95	40	BT3173	Conserved hypothetical protein	-4.1	5.57E-03
		BT1010	Conserved hypothetical protein	-3.2	1.65E-02
Glycoside Hydrolase Family 97	20	BT3163	Alpha-glucosidase, putative	-4.3	3.37E-03
		BT4581	Alpha-glucosidase	-3.0	2.11E-02
Polysaccharide Lyase Family 1	20	BT4119	Conserved hypothetical protein	-3.2	1.59E-02
Polysaccharide Lyase Family 9	50	BT4170	Putative pectate lyase L precursor	-4.3	3.51E-03
Carbohydrate-Binding Module Family 32	33	BT1625	Conserved hypothetical protein	-4.8	4.76E-03
		BT3774	Alpha-mannosidase	-3.9	6.26E-03
		BT3293	Beta-galactosidase	-3.7	1.21E-02
		BT3169	Alpha-xylosidase	-3.2	2.80E-02

\* - percent of all *B. thetaiotaomicron* glycoside hydrolases belonging to the Carbohydrate Active Enzymes (CAZy) family

\*\* - according to *B. thetaiotaomicron* genome annotation