

**Table S7. Glycosyl hydrolases of the *B. longum* subsp. *infantis* ATCC15697 genome**

| <b>COG</b> | <b>Enzyme</b> | <b>CAZy family</b> | <b>Locus</b>           | <b>Description</b>                                   | <b>Pfam evidence</b>   |
|------------|---------------|--------------------|------------------------|--|--|
| COG0296    | EC:2.4.1.18   | GH13               | Blon_1761              | 1,4-alpha-glucan branching enzyme                    | Isoamylase(PF02298)/Alpha amylase (PF00128)                                |
| COG0366    | EC:2.4.1.7    | GH13               | Blon_0128              | Sucrose phosphorylase                                | Alpha amylase (PF00128)  |
| COG0366    | -             | GH13               | Blon_1636              | Alpha amylase (neopullanase)                         | Alpha amylase (PF00128)  |
| COG0366    | -             | GH13               | Blon_0137              | Alpha amylase (1,4 glucosidase)                      | Alpha amylase (PF00128)  |
| COG0366    | EC:3.2.1.10   | GH13               | Blon_2453              | Alpha amylase ( oligo-1,6-glucosidase)               | Alpha amylase (PF00128)  |
| COG0366    | -             | GH13               | Blon_0282              | Alpha amylase  | Alpha amylase (PF00128)  |
| COG0383    | -             | GH38               | Blon_0868              | alpha-mannosidase                                    | Glycosyl hydrolases family 38 (PF01074)                                    |
| COG0383    | -             | GH38               | Blon_0869              | alpha-mannosidase                                    | Glycosyl hydrolases family 38 (PF01074)                                    |
| COG1472    | EC:3.2.1.21   | GH3                | Blon_0625              | Beta-glucosidase                                     | Glycosyl hydrolase family 3 (PF00933/PF01915)                              |
| COG1472    | -             | GH3                | Blon_1843              | possible beta-hexosaminidase                         | Glycosyl hydrolase family 3 (PF00933)                                      |
| COG1523    | -             | GH13               | Blon_1740              | glycogen debranching enzyme (pullanase)              | Isoamylase(PF02298); Alpha amylase (PF00128)                               |
| COG1523    | -             | GH13               | Blon_2243              | glycogen debranching enzyme                          | Alpha amylase (PF00128)  |
| COG1621    | -             | GH32               | Blon_0787              | beta-fructofuranosidase/sucrase (possible inulinase) | Glycosyl hydrolases family 32 (PF00251)                                    |
| COG1621    | -             | GH32               | Blon_2056              | beta-fructofuranosidase/sucrase (possible inulinase) | Glycosyl hydrolases family 32 (PF00251)                                    |
| COG1874    | -             | GH42               | Blon_0346              | Beta-galactosidase                                   | Beta-galactosidase (PF02449)   |
| COG1874    | EC:3.2.1.23   | GH42               | Blon_2016              | Beta-galactosidase                                   | Beta-galactosidase (PF02449); GH35 (PF01301)                               |
| COG1874    | EC:3.2.1.23   | GH42               | Blon_2123              | Beta-galactosidase                                   | Beta-galactosidase (PF02449); cellulase (PF00150)                          |
| COG1874    | EC:3.2.1.23   | GH42               | Blon_2416              | Beta-galactosidase                                   | Beta-galactosidase (PF02449); GH14 (PF01373)                               |
| COG2723    | EC:3.2.1.21   | GH1                | Blon_1905              | Beta-glucosidase                                     | Glycosyl hydrolase family 1 (PF00232)                                      |
| COG2730    | EC:3.2.1.58   | GH5                | Blon_0621              | Glucan 1,3-beta-glucosidase                          | Cellulase (PF00150)  |
| COG3345    | EC:3.2.1.22   | GH36               | Blon_2460              | alpha-galactosidase                                  | Melibiase (PF02065)  |
| COG3507    | -             | GH43               | Blon_2411              | glycoside hydrolase, family 43                       | Glycosyl hydrolases family 43 (PF4616)                                     |
| COG3525    | -             | GH20               | Blon_0732              | Possible beta-hexosaminidase A                       | Glycosyl hydrolase family 20 (PF00728; PF02838)                            |
| COG3525    | -             | GH20               | Blon_2355              | Possible beta-hexosaminidase A                       | Glycosyl hydrolase family 20 (PF00728; PF02838)                            |
| COG3525    | -             | GH20               | Blon_0459              | Possible beta-hexosaminidase A                       | Glycosyl hydrolase family 20 (PF00728; PF02838)                            |
| COG3534    | -             | GH51               | Blon_1989              | alpha-L-arabinofuranosidase A-like                   | Alpha-L-arabinofuranosidase (PF06964); NADH dehydrogenase (PF00346)        |
| COG3669    | EC:3.2.1.51   | GH29               | Blon_0248              | Alpha-L-fucosidase                                   | Alpha-L-fucosidase (PF01120)   |
| COG3669    | EC:3.2.1.51   | GH29               | Blon_0426              | Alpha-L-fucosidase                                   | Alpha-L-fucosidase (PF01120)   |
| COG3669    | -             | GH29               | Blon_2336              | Putative alpha-1,3/4-fucosidase                      | Alpha-L-fucosidase (PF01120)   |
| COG3867    | -             | GH53               | Blon_0440              | Arabinogalactan endo-1,4-beta-galactosidase          | No GH Pfam <sup>1</sup>  |
| COG4409    | -             | GH33               | Blon_0646              | glycosyl hydrolase, BNR repeat-containing protein    | bacterial neuraminidase repeat (PF02012)                                   |
| COG4409    | EC:3.2.1.18   | GH33               | Blon_2348              | Exo-alpha-sialidase                                  | bacterial neuraminidase repeat (PF02012)                                   |
| COG1640    | EC:2.4.1.25   | GH77               | Blon_0139              | 4-alpha-glucanotransferase                           | 4-alpha-glucanotransferase (PF02446)                                       |
| COG1640    | EC:2.4.1.25   | GH77               | Blon_2246              | 4-alpha-glucanotransferase                           | 4-alpha-glucanotransferase (PF02446)                                       |
| COG3250    | -             | GH2                | Blon_0268              | glycoside hydrolase family 2, sugar binding          | Glycosyl hydrolases family 2 (PF02837; PF02836; PF00703)                   |
| COG3250    | -             | GH2                | Blon_1894 <sup>2</sup> | Putative beta-galactosidase                          | Glycosyl hydrolases family 2 (PF02836)                                     |
| COG3250    | EC:3.2.1.23   | GH2                | Blon_2334              | glycoside hydrolase family 2, TIM barrel             | Glycosyl hydrolases family 2 (PF02837; PF02929; PF02836; PF02930; PF00703) |

<sup>1</sup>PF07532 Bacterial Ig-like domain (cell surface)<sup>2</sup>Possible gene fragment