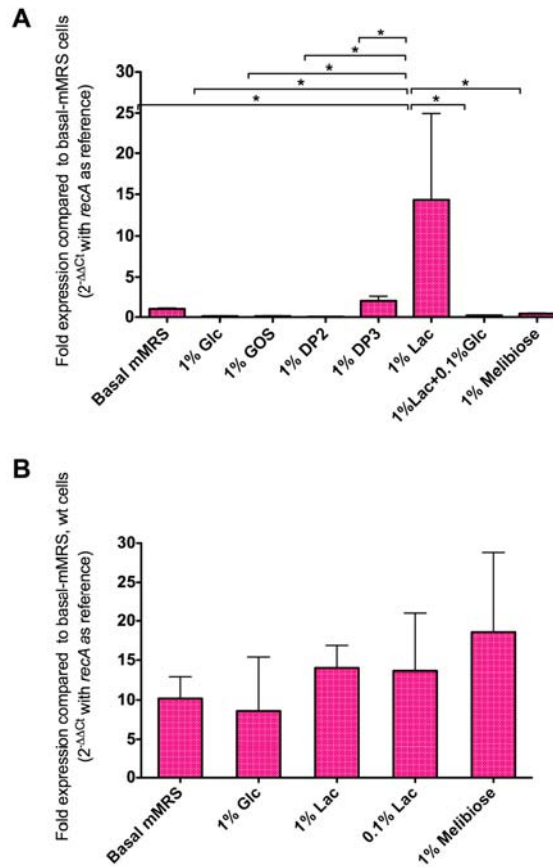
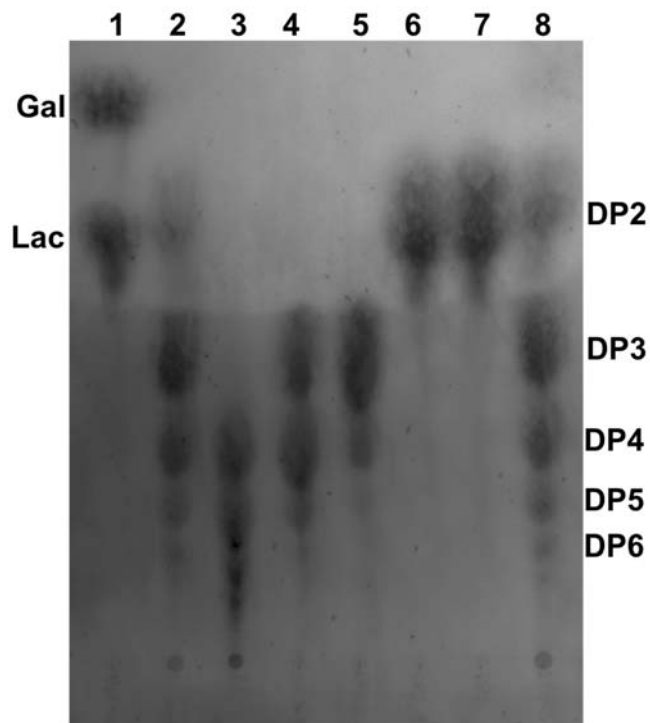


**Figure S1.** Growth of wild type and mutant strains on raffinose (A) and stachyose (B). Same legend as for Figure 2.



**Figure S2.** Relative real-time PCR quantitative analysis of the *lacS* gene transcript in response to different carbon-sources. (A) The *lacS* expression in wild-type *L. reuteri* 6475 and (B) in the  $\Delta lacR$  mutant. Glc: glucose, Lac: lactose, DP2: GOS disaccharides, DP3,4: GOS tri- and tetrasaccharides. Results are expressed as means  $\pm$  SD obtained from three independent replicates. Asterisks denote significant differences ( $p < 0.05$ ) analyzed by Repeated Measures ANOVA with Tukey's post-hoc test.



**Figure S3.** TLC analysis of freeze-dried GOS fractions separated from Purimune GOS by Sephadex G-10 size exclusion chromatography. Lane 1: lactose and galactose; lanes 2 and 8: standard Purimune GOS; lane 3: fraction with the degree of polymerization (DP)  $\geq$  4; lane 4: fraction with DP 3-5; lane 5: tri- and tetrasaccharide fraction; lanes 6 and 7: disaccharide fraction.