

Table S1 List of the lactic acid bacteria strains used in this study, deposit number and their most relevant antimicrobial characteristics are described in Presti et al. 2015 and De Giani et al. 2019.

Probiotic strain	Deposit number	Antimicrobial activity vs	Growth capacity on inulin-type fructans (different Degree of Polymerization DP)
<i>Lactiplantibacillus plantarum</i> (formerly <i>Lactobacillus plantarum</i>) PBS067	DSM 24937	<i>C. albicans</i> ; <i>E. faecalis</i> ; <i>P. aeruginosa</i> ; <i>S. aureus</i> ; <i>E. coli</i> . Production of bacteriocin-like compound (P1053) active against <i>S. aureus</i> and <i>E. coli</i>	FOS DP 3~5; FOS DP~10; Inulin DP~25
<i>Lactobacillus acidophilus</i> PBS066	DSM 24936	<i>C. albicans</i> ; <i>E. faecalis</i> ; <i>P. aeruginosa</i> ; <i>S. aureus</i> ; <i>E. coli</i>	FOS DP 3~5
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> BL050 (formerly PBS075)	DSM 25566	<i>E. faecalis</i> ; <i>P. aeruginosa</i> ; <i>E. coli</i>	FOS DP 3~5; FOS DP~10; Inulin DP~25