

Supplementary Materials

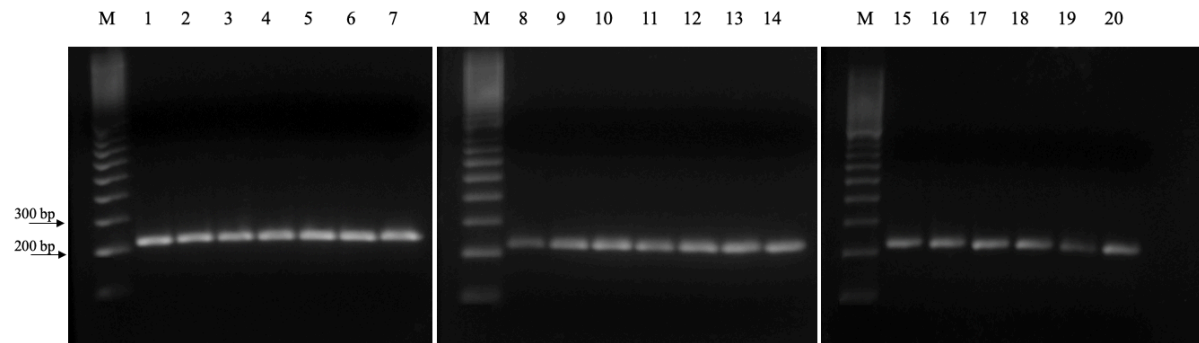


Figure S1. Products obtained through PCR with *Ligilactobacillus animalis* primers for the 18 LAB strains isolated A1, A2, B1, C1, D1, E1, E2, E3, E4, E5, F1, F2, F3, G1, H1, H2, H3 and I1 (lanes 1-18), *Lactococcus lactis* (line 19) and *Lactocaseibacillus rhamnosus* controls (lane 20), GeneRuler™ DNA Ladder Mix as standard of molecular weight (M).

Table S1. Molecular identification (BLAST-NCBI) of isolated LAB strains from mice intestinal tract.

Strain	Description	Query Cover	E value	Per Ident	GenBank Accession
A1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	98%	3e-98	99.51%	MT585453.1
A2	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	98%	4e-97	99.02%	MT585453.1
B1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	8e-99	99.51%	MT585453.1
C1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	8e-99	99.51%	MT585453.1
D1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	2e-100	100%	MT585453.1
E1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	2e-99	99.51%	MT585453.1
E2	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	5e-101	100%	MT585453.1
E3	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	8e-99	99.51%	MT585453.1
E4	<i>Streptococcus salivarius</i> strain1957 16S rRNA gene	99%	1e-91	97.54%	MT597770.1
E5	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	2e-94	98.07%	MT585453.1
F1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	100%	8e-99	99.51%	MT585453.1
F2	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	1e-96	99.02%	MT585453.1
F3	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	94%	6E-85	97.89%	MT585453.1
G1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	100%	8e-99	100%	MT585453.1
H1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	3E-98	99.51%	MT585453.1
H2	<i>Ligilactobacillus animalis</i> strain 8372 16S rRNA gene	99%	4e-82	95.10%	MT5389999.1
H3	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	98%	3e-98	99.51%	MT585453.1
I1	<i>Ligilactobacillus murinus</i> strain 700 16S rRNA gene	99%	4e-97	99.02%	MT585453.1