

## Screening beneficial bacteriostatic lactic acid bacteria in the intestine and studies of bacteriostatic substances

Zhijing LIU<sup>1,2</sup>, Cong XU<sup>1,2</sup>, Ran TIAN<sup>1,2</sup>, Wan WANG<sup>1,2</sup>, Jiage MA<sup>1,2</sup>, Liya GU<sup>1,2</sup>, Fei LIU<sup>1,2</sup>, Zhanmei JIANG<sup>2</sup>, Juncai HOU<sup>1,2</sup>

<sup>1</sup>Key Laboratory of Dairy Science, Ministry of Education, College of Food Science, Northeast Agricultural University, Harbin 150030, China

<sup>2</sup>College of Food Science, Northeast Agricultural University, Harbin 150030, China

**Table S1 Results of *Lactobacillus* identification by 16S rRNA sequence**

Strain number	<i>Lactobacillus</i> species
Strains 33, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 49, 52, 53, 54, 55, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80	<i>Enterococcus hirae</i>
Strains 30, 47, 57, 78	<i>Enterococcus faecium</i>
Strains 29, 31, 34, 37, 48, 51, 72	<i>Streptococcus salivarius</i>
Strains 2, 3, 4, 5, 10, 11, 13, 14, 15, 13, 14, 15, 16, 18, 21, 22, 23, 25, 26, 35, 56	<i>Lactococcus garvieae</i>
Strains 1, 6, 8, 20, 60, 65	<i>Lactobacillus salivarius</i>
Strain 9	<i>Lactobacillus ghanensis</i>
Strain 12	<i>Leuconostoc lactis</i>
Strain 17	<i>Enterococcus thailandicus</i>
Strain 24	<i>Lactobacillus paracasei</i>
Strains 28, 32	<i>Enterococcus gallinarum</i>
Strain 59	<i>Enterococcus durans</i>
Strain 63	<i>Enterococcus faecalis</i>

**Table S2 Screening results of bacteriostatic lactic acid bacteria**

Strain number	<i>E. coli</i> ATCC 25922	<i>S. aureus</i> ATCC 25923	Number of inhibitory bacteria
Strain 1	++	++	2/2
Strain 2	+	-	1/2
Strain 6	++	-	1/2
Strain 8	++	-	1/2
Strain 9	++	++	2/2
Strain 11	-	-	0/2
Strain 12	++	+	2/2
Strain 17	-	-	0/2
Strain 20	++	-	1/2
Strain 24	+++	+	2/2
Strain 28	-	-	0/2
Strain 29	+	-	1/2
Strain 30	+	-	1/2
Strain 32	-	-	0/2
Strain 33	+	-	1/2
Strain 59	+	-	1/2
Strain 60	++	-	1/2
Strain 63	++	+	2/2
Strain 65	+	-	1/2
Strain 78	+	-	1/2

The outside diameter of Oxford cup was 8 mm. “-“ means non-inhibitory circle or inhibitory circle diameter  $\leq 8$  mm; “+” means diameter 8–10 mm; “++” means diameter 10–15 mm; and “+++” means diameter  $>15$  mm.

**Table S3 Initial pH value of fermentation of the test strain**

Strain number	Original pH value of fermentation broth	Inhibition zone diameter (mm)
Strain 1	3.98	20.33±0.67
Strain 12	3.78	18.93±0.23
Strain 24	3.81	24.76±0.63

The diameter of the Oxford cup was 8 mm. Data are expressed as mean±standard deviation ( $n=3$ ).