

Table S1. Growth and acidification ability of *Lactobacillus* isolates in the goat meat model system (MMS) at 30 °C after 24 h.

Isolates	pH		Titratable acidity ¹		Viability ²
	t24	t24	t0	t24	net growth ³
UL12	3.7±0.06 ^A	1.50±0.01	7.1	9.0 ^C	1.9 ^B
UL94	3.8±0.01 ^{AB}	1.38±0.01	7.0	8.0 ^{ABC}	1.0 ^{AB}
UL60	3.9±0.09 ^{ABC}	1.37±0.01	7.3	8.0 ^{ABC}	0.7 ^{AB}
UL57	3.9±0.19 ^{ABC}	1.50±0.01	7.3	8.5 ^{ABC}	1.2 ^{AB}
UL55	3.9±0.09 ^{ABC}	1.37±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL54	3.9±0.13 ^{ABC}	1.36±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL61	3.9±0.10 ^{ABC}	1.37±0.01	7.3	8.0 ^{ABC}	0.7 ^{AB}
UL123	3.9±0.14 ^{ABC}	1.37±0.02	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL67	3.9±0.14 ^{ABC}	0.90±0.02	7.3	8.1 ^{ABC}	0.8 ^{AB}
UL64	3.9±0.10 ^{ABC}	1.50±0.01	7.3	8.5 ^{ABC}	1.2 ^{AB}
UL126	3.9±0.14 ^{ABC}	1.38±0.01	7.0	8.0 ^{ABC}	1.0 ^{AB}
UL49	3.9±0.12 ^{ABC}	1.50±0.01	7.3	8.5 ^{ABC}	1.2 ^{AB}
UL4	3.9±0.01 ^{ABC}	1.38±0.01	7.1	8.6 ^{BC}	1.5 ^{AB}
UL39	3.9±0.13 ^{ABC}	1.00±0.02	7.1	7.5 ^{ABC}	0.4 ^{AB}
UL34	3.9±0.06 ^{ABC}	1.45±0.01	7.0	8.1 ^{ABC}	1.1 ^{AB}
UL33	3.9±0.12 ^{ABC}	1.36±0.01	7.0	8.2 ^{ABC}	1.2 ^{AB}
UL32	3.9±0.12 ^{ABC}	1.36±0.01	7.0	8.2 ^{ABC}	1.2 ^{AB}
UL46	3.9±0.13 ^{ABC}	1.36±0.01	7.3	8.0 ^{ABC}	0.7 ^{AB}
UL45	3.9±0.14 ^{ABC}	1.35±0.01	7.3	8.2 ^{ABC}	0.9 ^{AB}
UL44	3.9±0.12 ^{ABC}	1.36±0.01	7.3	8.2 ^{ABC}	0.9 ^{AB}
UL41	3.9±0.12 ^{ABC}	1.36±0.01	7.3	8.2 ^{ABC}	0.9 ^{AB}
UL40	3.9±0.13 ^{ABC}	1.36±0.01	7.3	7.7 ^{ABC}	0.4 ^{AB}
UL84	3.9±0.06 ^{ABC}	1.38±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL112	3.9±0.14 ^{ABC}	1.00±0.01	7.1	7.5 ^{ABC}	0.4 ^{AB}
UL11	3.9±0.05 ^{ABC}	1.36±0.01	7.1	8.6 ^{BC}	1.5 ^v
UL106	3.9±0.08 ^{ABC}	1.00±0.01	7.0	7.5 ^{ABC}	0.5 ^{AB}
UL108	3.9±0.14 ^{ABC}	1.00±0.01	7.0	7.5 ^{ABC}	0.5 ^{AB}
UL92	3.9±0.06 ^{ABC}	1.38±0.01	7.0	8.0 ^{ABC}	1.0 ^{AB}
UL76	3.9±0.12 ^{ABC}	1.37±0.01	7.3	8.0 ^{ABC}	0.7 ^{AB}
UL96	3.9±0.10 ^{ABC}	1.38±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL78	3.9±0.06 ^{ABC}	1.45±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL10	3.9±0.14 ^{ABC}	1.38±0.01	7.0	8.0 ^{ABC}	1.0 ^{AB}
UL101	3.9±0.10 ^{ABC}	1.00±0.01	7.0	7.5 ^{ABC}	0.5 ^{AB}
UL25	3.9±0.12 ^{ABC}	1.36±0.01	7.0	8.0 ^{ABC}	1.0 ^{AB}
UL27	3.9±0.13 ^{ABC}	1.37±0.01	7.1	8.0 ^{ABC}	0.9 ^{AB}
UL20	3.9±0.13 ^{ABC}	1.35±0.01	7.2	8.2 ^{ABC}	1.0 ^{AB}
UL82	4.0±0.12 ^{ABCD}	1.26±0.01	7.0	8.1 ^{ABC}	1.1 ^{AB}
UL83	4.0±0.10 ^{ABCD}	1.26±0.01	7.1	8.1 ^{ABC}	1.0 ^{AB}
UL90	4.0±0.14 ^{ABCD}	0.8±0.01	7.0	7.5 ^{ABC}	0.5 ^{AB}
UL98	4.0±0.10 ^{ABCD}	1.3±0.01	7.0	8.1 ^{ABC}	1.0 ^{AB}
UL71	4.0±0.12 ^{ABCD}	0.8±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL73	4.0±0.14 ^{ABCD}	1.4±0.01	7.1	8.1 ^{ABC}	1.0 ^{AB}
UL6	4.0±0.09 ^{ABCD}	1.0±0.02	7.2	7.8 ^{ABC}	0.6 ^{AB}
UL53	4.0±0.06 ^{ABCD}	1.26±0.01	7.1	8.1 ^{ABC}	1.0 ^{AB}

UL87	4.0±0.14 ABCD	1.4±0.01	7.0	8.1 ABC	1.1 AB
UL86	4.0±0.14 ABCD	1.4±0.01	7.0	8.1 ABC	1.1 AB
UL88	4.0±0.12 ABCD	1.26±0.01	7.1	8.2 ABC	1.1 AB
UL85	4.0±0.10 ABCD	1.26±0.01	7.1	8.1 ABC	1.0 AB
UL42	4.0±0.14 ABCD	1.26±0.01	7.1	8.1 ABC	1.0 AB
UL111	4.0±0.10 ABCD	1.3±0.01	7.1	8.1 ABC	1.0 AB
UL125	4.0±0.10 ABCD	1.26±0.01	7.1	8.1 ABC	1.0 AB
UL24	4.0±0.12 ABCD	1.0±0.02	7.0	8.0 ABC	1.0 AB
UL115	4.0±0.14 ABCD	1.26±0.01	7.0	8.1 ABC	1.1 AB
UL19	4.0±0.13 ABCD	1.3±0.01	7.1	8.1 ABC	1.0 AB
UL103	4.0±0.09 ABCD	1.26±0.05	7.0	8.1 ABC	1.1 AB
UL109	4.0±0.14 ABCD	1.26±0.01	7.1	8.1 ABC	1.0 AB
UL22	4.0±0.13 ABCD	1.0±0.02	7.0	7.9 ABC	0.9 AB
UL28	4.0±0.10 ABCD	1.0±0.02	7.0	8.1 ABC	1.1 AB
UL117	4.0±0.14 ABCD	1.0±0.01	7.0	7.6 ABC	0.6 AB
UL119	4.0±0.10 ABCD	1.3±0.01	7.0	8.1 ABC	1.1 AB
UL120	4.0±0.14 ABCD	1.26±0.01	7.1	8.1 ABC	1.0 AB
UL8	3.8±0.12 ABCD	1.38±0.01	7.0	8.0 ABC	1.0 AB
UL116	4.0±0.14 ABCD	1.26±0.01	7.0	8.1 ABC	1.1 AB
UL9	4.3±0.09 ABCD	0.9±0.02	7.1	7.8 ABC	0.7 AB
UL100	4.1±0.14 ABCD	1.0±0.01	7.0	7.6 ABC	0.6 AB
UL21	4.1±0.12 ABCD	1.0±0.02	7.0	7.8 ^A	0.8 AB
UL81	4.2±0.14 ABCD	1.4±0.01	7.0	8.1 ABC	1.1 AB
UL16	4.2±0.12 ABCD	0.7±0.01	7.1	8.0 ABC	0.9 AB
UL91	4.2±0.14 ABCD	0.9±0.01	7.0	8.5 ABC	1.5 AB
UL79	4.2±0.13 ABCD	0.9±0.02	7.0	7.5 ABC	0.5 AB
UL38	4.2±0.12 ABCD	0.7±0.01	7.1	6.9 ^A	-0.2 ^A
UL3	4.2±0.05 ABCD	0.9±0.01	7.1	7.5 ABC	0.4 AB
UL47	4.2±0.13 ABCD	0.9±0.02	7.3	8.1 ABC	0.8 AB
UL35	4.2±0.12 ABCD	0.8±0.01	6.9	7.9 ABC	1.0 AB
UL23	4.2±0.13 ABCD	0.9±0.02	7.0	7.9 ABC	0.9 AB
UL124	4.3±0.09 ABCD	0.9±0.01	7.0	7.9 ABC	0.9 AB
UL26	4.3±0.17 ABCD	0.9±0.02	7.0	7.9 ABC	0.9 AB
UL31	4.3±0.05 ABCD	0.9±0.02	7.0	7.5 ABC	0.5 AB
UL1	4.3±0.14 ABCD	0.9±0.02	7.3	7.9 ABC	0.6 AB
UL77	4.3±0.14 ABCD	1.4±0.01	7.3	8.1 ABC	0.8 AB
UL7	4.3±0.20 ABCD	0.9±0.02	7.1	8.1 ABC	1.0 AB
UL69	4.3±0.17 ABCD	1.4±0.01	7.3	8.0 ABC	0.7 AB
UL5	4.3±0.09 ABCD	0.8±0.02	7.0	7.8 ABC	0.8 AB
UL50	4.3±0.12 ABCD	1.0±0.02	7.1	7.6 ABC	0.5 AB
UL2	4.3±0.12 ABCD	0.9±0.02	7.2	7.8 ABC	0.6 AB
UL72	4.4±0.01 ABCD	0.8±0.01	7.3	7.8 ABC	0.5 AB
UL75	4.4±0.01 ABCD	0.8±0.01	7.1	7.7 ABC	0.6 AB
UL93	4.4±0.14 ABCD	0.8±0.01	7.0	7.7 ABC	0.7 AB
UL18	4.4±0.37 ABCD	0.8±0.02	7.0	7.7 ABC	0.7 AB
UL97	4.4±0.10 ABCD	0.8±0.01	7.0	7.8 ABC	0.8 AB
UL121	4.4±0.14 ABCD	0.8±0.01	7.1	6.9 ^A	-0.2 ^A
UL105	4.4±0.10 ABCD	0.8±0.01	7.1	7.9 ABC	0.8 AB
UL95	4.4±0.14 ABCD	0.8±0.01	7.0	7.9 ABC	0.9 AB
UL114	4.4±0.14 ABCD	0.8±0.01	7.0	6.9 ^A	-0.1 ^A

UL104	4.4±0.01 ^{ABCD}	0.8±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL102	4.4±0.10 ^{ABCD}	0.8±0.01	7.0	7.2 ^{AB}	0.2 ^{AB}
UL99	4.4±0.14 ^{ABCD}	0.8±0.01	7.0	6.9 ^A	-0.1 ^A
UL70	4.5±0.37 ^{ABCD}	0.8±0.01	7.3	7.6 ^{ABC}	0.3 ^{AB}
UL17	4.5±0.13 ^{ABCD}	0.7±0.02	7.0	7.8 ^{ABC}	0.8 ^{AB}
UL107	4.6±0.01 ^{ABCD}	0.7±0.01	7.1	7.8 ^{ABC}	0.7 ^{AB}
UL14	4.6±0.12 ^{ABCD}	0.7±0.01	6.8	7.1 ^{AB}	0.3 ^{AB}
UL15	4.6±0.12 ^{ABCD}	0.7±0.01	6.9	7.8 ^{ABC}	0.9 ^{AB}
UL58	4.6±0.12 ^{ABCD}	0.8±0.01	7.0	7.7 ^{ABC}	0.7 ^{AB}
UL36	4.6±0.12 ^{ABCD}	0.7±0.01	6.8	7.1 ^{AB}	0.3 ^{AB}
UL68	4.6±0.08 ^{ABCD}	0.7±0.01	7.1	7.5 ^{ABC}	0.4 ^{AB}
UL66	4.6±0.08 ^{ABCD}	0.8±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL13	4.7±0.12 ^{ABCD}	0.7±0.02	7.2	7.9 ^{ABC}	0.7 ^{AB}
UL56	4.7±0.12 ^{ABCD}	0.8±0.01	7.1	7.6 ^{ABC}	0.5 ^{AB}
UL63	4.7±0.12 ^{ABCD}	0.7±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL43	4.7±0.15 ^{ABCD}	0.8±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL80	4.7±0.12 ^{ABCD}	0.8±0.01	7.0	7.9 ^{ABC}	0.9 ^{AB}
UL89	4.7±0.12 ^{ABCD}	0.8±0.01	7.0	7.8 ^{ABC}	0.8 ^{AB}
UL65	4.8±0.12 ^{BCD}	0.7±0.01	7.1	7.9 ^{ABC}	0.8 ^{AB}
UL59	4.8±0.12 ^{BCD}	0.8±0.01	7.2	7.7 ^{ABC}	0.5 ^{AB}
UL30	4.9±0.37 ^{CD}	0.6±0.01	7.0	8.1 ^{ABC}	1.1 ^{AB}
UL37	4.9±0.37 ^{CD}	0.6±0.01	6.8	7.4 ^{ABC}	0.6 ^{AB}
UL29	4.9±0.37 ^{CD}	0.6±0.02	6.8	7.5 ^{ABC}	0.7 ^{AB}
UL52	4.9±0.37 ^{CD}	0.5±0.01	7.1	7.6 ^{ABC}	0.5 ^{AB}
UL48	4.9±0.37 ^{CD}	0.6±0.01	7.3	8.5 ^{ABC}	1.2 ^{AB}
UL62	5.0±0.37 ^D	0.6±0.01	7.1	7.6 ^{ABC}	0.5 ^{AB}

Test: Duncan $\alpha = 0.05$ for factor interactions. Mean values \pm standard deviation. Means with common letter are not significantly different ($P \leq 0.05$). t0: 0 hours; t24: 24 hours. ¹: Titratable Acidity (% w / v lactic acid); ²: Viability (log CFU/mL) and ³: Net growth (log CFU/mL t₂₄-log CFU/mL t₀). Shading indicates that strains showed better growth and a greater decrease in pH occurred at 24 h in MMS.