

Table S1. Relative AI-2-like activity (RLU) of the neutralized and sterile CFSs for the 89 LAB isolates. Values represent mean values $\pm$ standard deviations. The 55 isolates whose CFS significantly induced AI-2 QS in the reporter *V. harveyi* BAA-1117 strain are indicated in bold (RLU ≥ 10). The strain code LFMH_B86 refers to the AI-2 producer *V. harveyi* BAA-1119 strain (used as a PC in the AI-2 production bioluminescence assay).

s/n	Isolate code	LAB species	Isolation origin	Relative AI-2-like activity (RLU)
1	DFSN_B42	<i>Lacticaseibacillus</i> sp.	Kalathaki cheese	25.86 $\pm$ 7.38
2	DFSN_B43	<i>Enterococcus</i> sp.	Kalathaki cheese	8.81 $\pm$ 7.63
3	DFSN_B44	<i>Lacticaseibacillus paracasei</i>	Kalathaki cheese	1.60 $\pm$ 0.10
4	DFSN_B50	<i>Enterococcus glivus</i>	Kalathaki cheese	32.45 $\pm$ 14.48
5	DFSN_B51	<i>Enterococcus faecium</i>	Melichloro cheese	48.74 $\pm$ 9.40
6	DFSN_B54	<i>Pediococcus pentosaceus</i>	Melichloro cheese	9.11 $\pm$ 2.42
7	DFSN_B55	<i>Enterococcus</i> sp.	Melichloro cheese	24.01 $\pm$ 10.94
8	DFSN_B58	<i>Pediococcus pentosaceus</i>	Kalathaki cheese	25.67 $\pm$ 8.57
9	DFSN_B63	<i>Leuconostoc mesenteroides</i>	Melichloro cheese	22.64 $\pm$ 11.75
10	DFSN_B64	<i>Enterococcus faecium</i>	Melichloro cheese	43.08 $\pm$ 11.33
11	LFMH_B1	<i>Enterococcus faecium</i>	Kalathaki cheese	29.89 $\pm$ 5.26
12	LFMH_B2	<i>Lacticaseibacillus</i> sp.	Kalathaki cheese	2.85 $\pm$ 2.18
13	LFMH_B3	<i>Enterococcus durans</i>	Kalathaki cheese	33.39 $\pm$ 5.03
14	LFMH_B6	<i>Enterococcus durans</i>	Melichloro cheese	27.70 $\pm$ 9.71
15	LFMH_B7	<i>Enterococcus pseudoavium</i>	Melichloro cheese	18.36 $\pm$ 8.69
16	LFMH_B8	<i>Enterococcus durans</i>	Melichloro cheese	112.21 $\pm$ 57.48
17	LFMH_B9	<i>Enterococcus faecium</i>	Kalathaki cheese	83.76 $\pm$ 37.71
18	LFMH_B10	<i>Pediococcus acidilactici</i>	Kalathaki cheese	2.89 $\pm$ 1.27
19	LFMH_B11	<i>Enterococcus faecium</i>	Kalathaki cheese	54.5 $\pm$ 20.87
20	LFMH_B14	<i>Enterococcus durans</i>	Melichloro cheese	67.22 $\pm$ 37.13
21	LFMH_B16	<i>Leuconostoc mesenteroides</i>	Melichloro cheese	35.25 $\pm$ 11.80
22	LFMH_B17	<i>Enterococcus avium</i>	Melichloro cheese	1.50 $\pm$ 0.79

23	LFMH_B18	<i>Lactococcus lactis</i> subsp. <i>lactis</i>	Melichloro cheese	35.47 ± 25.01
24	LFMH_B19	<i>Enterococcus durans</i>	Melichloro cheese	1.98 ± 1.41
25	LFMH_B20	<i>Enterococcus faecium</i>	Kalathaki cheese	25.24 ± 23.48
26	LFMH_B21	<i>Enterococcus faecium</i>	Kalathaki cheese	13.90 ± 3.86
27	LFMH_B23	<i>Lactococcus garviae</i>	Kalathaki cheese	60.48 ± 42.62
28	LFMH_B24	<i>Enterococcus faecalis</i>	Kalathaki cheese	71.34 ± 54.09
29	LFMH_B25	<i>Enterococcus hirae</i>	Kalathaki cheese	6.56 ± 2.31
30	LFMH_B26	<i>Enterococcus faecium</i>	Melichloro cheese	8.98 ± 5.91
31	LFMH_B29	<i>Lactobacillus delbrueckii</i>	raw sheep milk	1.82 ± 0.79
32	LFMH_B30	<i>Enterococcus faecalis</i>	raw sheep milk	229.93 ± 99.35
33	LFMH_B31	<i>Enterococcus faecium</i>	raw sheep milk	120.98 ± 82.07
34	LFMH_B32	<i>Enterococcus faecalis</i>	raw sheep milk	109.17 ± 55.58
35	LFMH_B33	<i>Enterococcus faecalis</i>	raw sheep milk	71.95 ± 23.98
36	LFMH_B34	<i>Enterococcus faecium</i>	raw sheep milk	2.22 ± 1.93
37	LFMH_B35	<i>Enterococcus faecium</i>	raw sheep milk	2.04 ± 1.25
38	LFMH_B36	<i>Enterococcus faecalis</i>	raw sheep milk	2.82 ± 1.26
39	LFMH_B37	<i>Enterococcus faecalis</i>	raw sheep milk	107.67 ± 53.55
40	LFMH_B38	<i>Enterococcus faecalis</i>	raw sheep milk	15.36 ± 7.85
41	LFMH_B39	<i>Enterococcus faecium</i>	raw sheep milk	198.56 ± 71.93
42	LFMH_B40	<i>Enterococcus durans</i>	raw sheep milk	132.50 ± 82.22
43	LFMH_B41	<i>Enterococcus faecium</i>	raw sheep milk	38.58 ± 23.73
44	LFMH_B42	<i>Streptococcus gallolyticus</i> subsp. <i>macedonicus</i>	raw sheep milk	2.32 ± 0.81
45	LFMH_B43	<i>Streptococcus lutetiensis</i>	raw sheep milk	2.09 ± 1.50
46	LFMH_B44	<i>Streptococcus lutetiensis</i>	raw sheep milk	1.19 ± 0.33
47	LFMH_B45	<i>Streptococcus gallolyticus</i> subsp. <i>macedonicus</i>	raw sheep milk	1.41 ± 0.40
48	LFMH_B46	<i>Streptococcus gallolyticus</i> subsp. <i>macedonicus</i>	raw sheep milk	1.14 ± 0.59
49	LFMH_B47	<i>Lactobacillus delbrueckii</i>	raw sheep milk	1.40 ± 0.41

50	LFMH_B48	<i>Enterococcus faecium</i>	raw sheep milk	43.35 ± 28.19
51	LFMH_B49	<i>Limosilactobacillus fermentum</i>	raw sheep milk	55.34 ± 37.16
52	LFMH_B50	<i>Enterococcus durans</i>	raw sheep milk	94.86 ± 16.88
53	LFMH_B51	<i>Enterococcus durans</i>	raw sheep milk	155.10 ± 69.73
54	LFMH_B52 a	<i>Enterococcus</i> sp.	raw sheep milk	1.33 ± 0.10
55	LFMH_B52 b	<i>Enterococcus</i> sp.	raw sheep milk	136.51 ± 73.09
56	LFMH_B53	<i>Limosilactobacillus fermentum</i>	raw sheep milk	47.05 ± 31.94
57	LFMH_B54	<i>Limosilactobacillus fermentum</i>	raw sheep milk	1.47 ± 0.32
58	LFMH_B55	<i>Enterococcus faecium</i>	raw sheep milk	16.13 ± 1.13
59	LFMH_B56	<i>Enterococcus durans</i>	raw sheep milk	42.24 ± 23.22
60	LFMH_B57 a	<i>Enterococcus</i> sp.	raw sheep milk	1.88 ± 0.69
61	LFMH_B57 b	<i>Enterococcus</i> sp.	raw sheep milk	62.79 ± 32.76
62	LFMH_B58	<i>Limosilactobacillus fermentum</i>	raw sheep milk	2.58 ± 2.82
63	LFMH_B59	<i>Limosilactobacillus fermentum</i>	raw sheep milk	1.37 ± 0.26
64	LFMH_B60	<i>Enterococcus durans</i>	raw sheep milk	74.83 ± 14.64
65	LFMH_B61	<i>Enterococcus</i> sp.	raw sheep milk	41.44 ± 16.61
66	LFMH_B62	<i>Lacticaseibacillus</i> sp.	raw sheep milk	39.44 ± 11.26
67	LFMH_B63 a	<i>Lacticaseibacillus</i> sp.	raw sheep milk	1.16 ± 0.47
68	LFMH_B63 b	<i>Enterococcus</i> sp.	raw sheep milk	43.41 ± 16.42
69	LFMH_B64	<i>Enterococcus durans</i>	raw sheep milk	55.74 ± 19.62
70	LFMH_B65 a	<i>Limosilactobacillus</i> sp.	raw sheep milk	2.22 ± 1.59
71	LFMH_B65 b	<i>Limosilactobacillus</i> sp.	raw sheep milk	1.46 ± 0.38
72	LFMH_B66	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	1.51 ± 0.55
73	LFMH_B67	<i>Enterococcus faecium</i>	raw sheep milk	114.18 ± 81.22
74	LFMH_B68	<i>Enterococcus faecalis</i>	raw sheep milk	353.23 ± 66.57
75	LFMH_B69	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	1.89 ± 0.68
76	LFMH_B70	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	101.15 ± 46.30

77	LFMH_B71	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	42.07 ± 15.14
78	LFMH_B72	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	1.70 ± 0.41
79	LFMH_B73	<i>Enterococcus durans</i>	raw sheep milk	34.89 ± 20.80
80	LFMH_B74	<i>Enterococcus faecium</i>	raw sheep milk	105.12 ± 28.38
81	LFMH_B75	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	1.62 ± 0.13
82	LFMH_B76	<i>Lactobacillus delbrueckii</i>	raw sheep milk	1.59 ± 0.33
83	LFMH_B77	<i>Enterococcus durans</i>	raw sheep milk	82.71 ± 38.69
84	LFMH_B78	<i>Lactobacillus fermentum</i>	raw sheep milk	2.57 ± 1.17
85	LFMH_B79 a	<i>Lacticaseibacillus rhamnosus</i>	raw sheep milk	1.86 ± 0.06
86	LFMH_B79 b	<i>Enterococcus faecium</i>	raw sheep milk	71.41 ± 13.73
87	LFMH_B81	<i>Enterococcus pseudoavium</i>	Melichloro cheese	63.20 ± 22.02
88	LFMH_B82	<i>Leuconostoc mesenteroides</i>	Melichloro cheese	45.83 ± 25.60
89	LFMH_B83	<i>Lactococcus lactis</i>	Kalathaki cheese	49.13 ± 12.42
	LFMH_B86	<i>Vibrio harveyi</i> BAA-1119		197.77 ± 118.57