

# Removal of *Staphylococcus aureus* from skin using a combination antibiofilm approach (Supplementary Materials)

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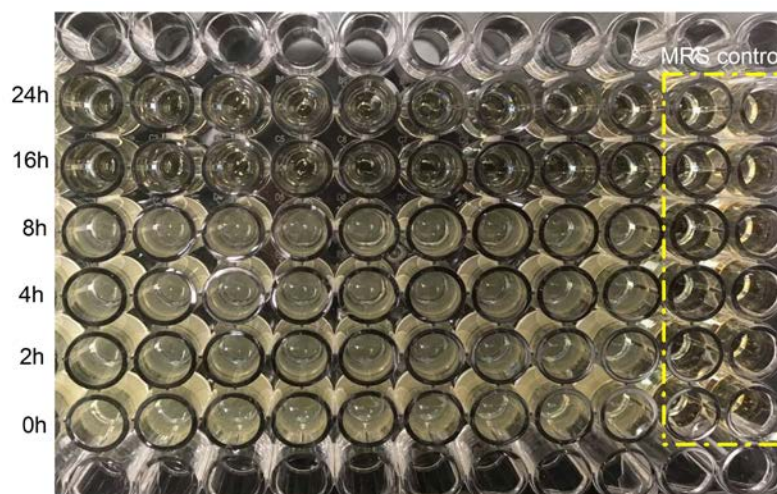
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## Supplementary Methods

**Supernatant preparation** *L. rhamnosus* supernatants obtained from one colony at different culture time (0, 2, 4, 8, 16, and 24h) were initially tested for inhibition of *S. aureus* ( $\sim 10^6$  CFU/mL) growth in 96-well microtiter plates (supplementary test). Briefly, supernatants (0.1 mL/each) and *S. aureus* solution (0.1 mL,  $10^6$  CFU/mL) were added to each well and cultured for 24h at 37°C. Based on the result, we always use the probiotic supernatant collected after overnight (16-18h) culture if not mentioned specifically. We acquired the supernatants with a 0.22 $\mu$ m membrane filter (EMD Millipore, Germany) after centrifugation.



**Supplementary Figure 1 (S1).** Probiotic supernatant (*Lactobacillus rhamnosus* NBRC 3425) obtained from one colony and cultured for different time (0, 2, 4, 8, 16 and 24h) inhibit *S. aureus* ( $10^6$  CFU/mL) growth. If not

mentioned specifically, all probiotic supernatant in subsequent intervention testing was obtained from overnight culture (16-18h).

#### Data Availability

**Figure 4**

PC	stdev	A4	stdev	A6	stdev	B	stdev	BA	stdev
100	0	13.2	2.69	1.00	0.268	4.36	1.82	0.0632	0.0107

**Figure 5**

initial probiotic concentrations	planktonic ( $10^6$ CFU/mL)	stdev	biofilm ( $10^6$ CFU/mL)	stdev
1.00E+10	48	28	88	65
1.00E+08	59	11	106	52
1.00E+06	93	18	238	71
1.00E+04	226	83	284	58
0	309	116	813	323

**Figure 6**

PC	stdev	PB2+2	stdev	PB2+24	stdev	PB2+2+B	stdev	PB2+24+B	stdev
100	0	24.6	14.0	2.97	2.73	0.00674	0.00154	0.00742	0.00546