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Research article

The synergism of the antibacterial action of lysostaphin and warnerin, an antibacterial peptide of the epilancin group, against *Staphylococcus aureus*

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Supplementary

Table S1. Genetic determinants of lysostaphin resistance in *Staphylococcus* strains.

Gene	*S. aureus* ATCC 25923, a.a.	*S. aureus* ATCC 9144, a.a.	*S. aureus* ATCC 43300, a.a.
femA (=*epr*)	420	420	420
femB	419	419	419
femX (=*fmhB*)	421	421	421
fmhA	pseudogene	416	416
fmhC	414	414	414
lyrA (=*spdC*)	419	419	419
glyA	412	412	412
tarO	351	351	pseudogene
tarH	264	264	264
tarG	270	270	270

Note: a.a.—predicted protein length according to NCBI annotation.

Table S2. Genetic determinants of resistance to cationic antimicrobial peptides.

Gene	*S. aureus* ATCC 25923, a.a.	*S. aureus* ATCC 9144, a.a.	*S. aureus* ATCC 43300, a.a.
mprF	840	840	840
dltA	485	485	485
dltC	78	78	78
dltB	404	404	404
dltD	391	391	391
dltX	50	50	50

Note: a.a.—predicted protein length according to NCBI annotation.

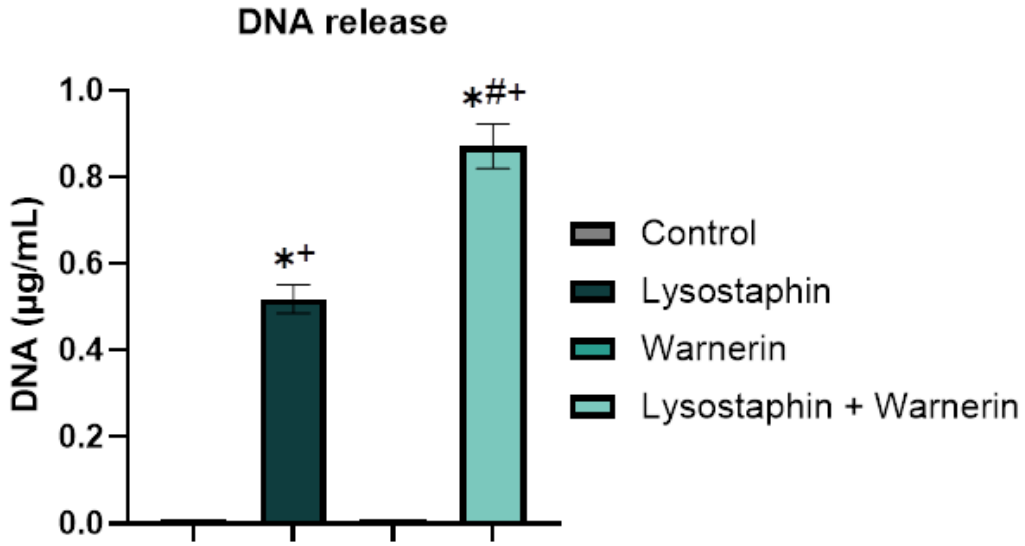


Figure S1. DNA leakage from *S. aureus* ATCC 25923 cells without treatment (gray), after 30 min of exposure to lysostaphin (dark green), warnerin (teal), and their combination (light green). All quantitative data are expressed as means ± SDs from 3 independent experiments. Statistical significance was evaluated using ANOVA test. * $p < 0.05$ vs. control; # $p < 0.05$ vs. lysostaphin; + $p < 0.05$ vs. warnerin.

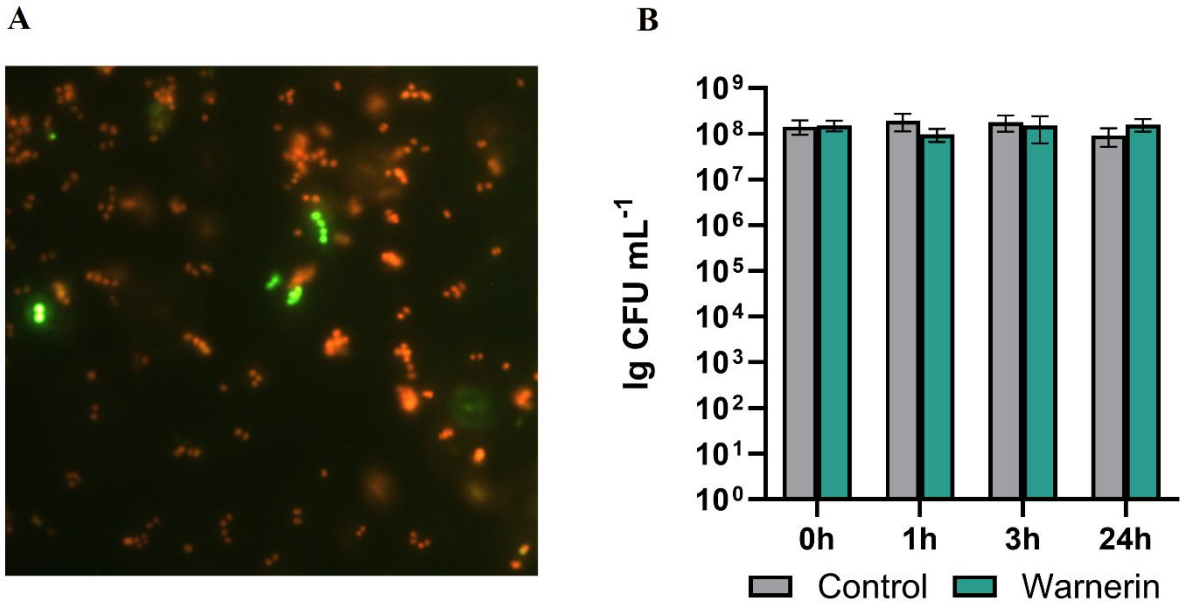


Figure S2. Effect of warnerin (1 × MIC) on *S. aureus* ATCC 25923 over 1 h. (A) Fluorescence microscopy of live/dead-stained *S. aureus* ATCC 25923 cells. (B) Number of viable cells in the presence of 1 × MIC of warnerin. All data are expressed as means ± SDs from 3 independent experiments.

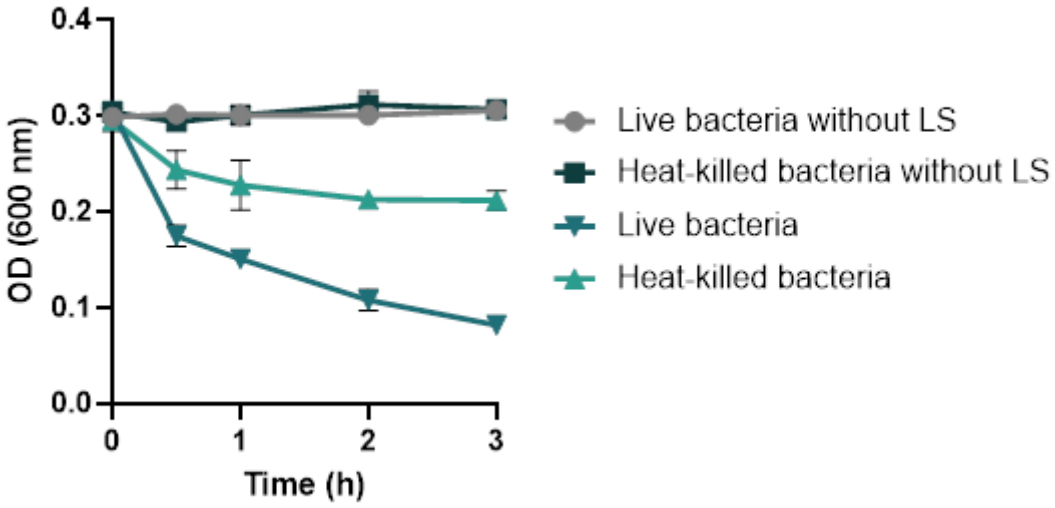


Figure S3. Lysis of *S. aureus* ATCC 25923 cells in the presence of 0.25 × MIC of lysostaphin (LS), assessed by optical density at 600 nm over time. Live and heat-killed (boiled for 10 min) bacterial suspensions were analyzed. Untreated live and heat-killed bacteria served as controls. All quantitative data are expressed as means ± SDs from 3 independent experiments.

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