

SUPPORTING INFORMATION

Peptide-Bacteria Interactions using Engineered Surface Immobilized Peptides from Class IIa Bacteriocins

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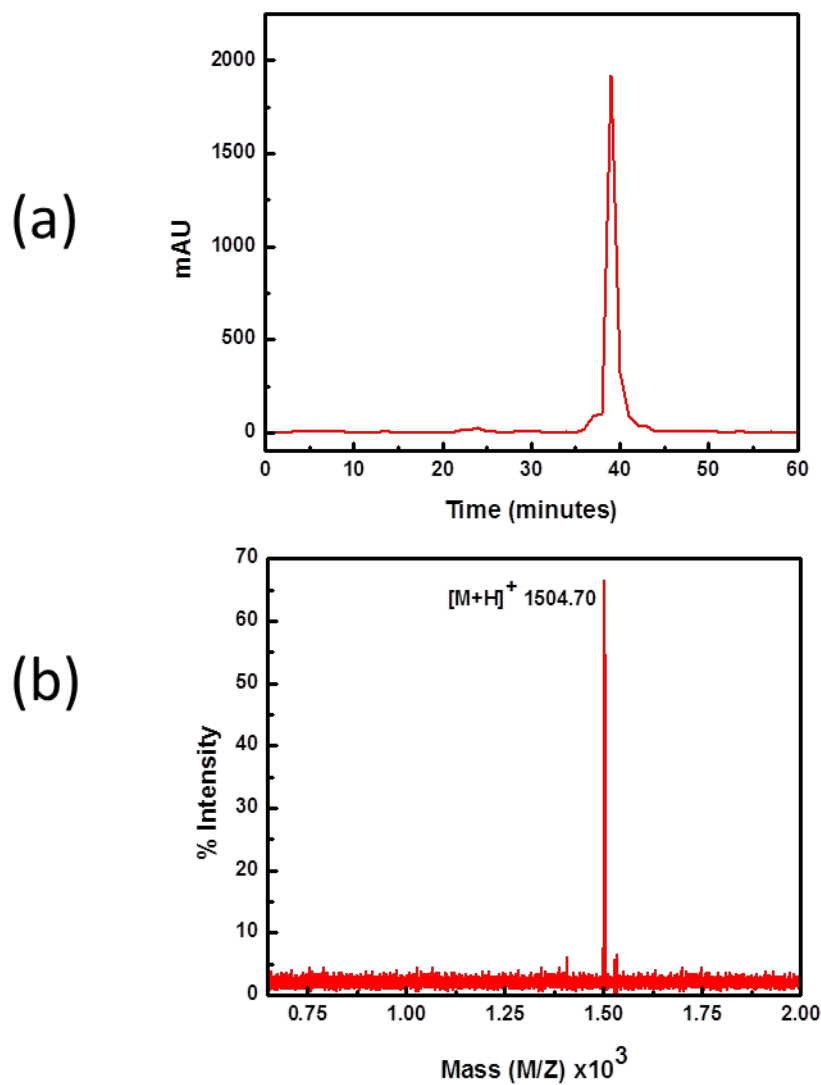


Figure S1. (a) HPLC chromatogram of the pure 14-AA LeuA peptide eluting at 39 minutes using a gradient of 15 – 55% ACN/Water (0.1% TFA) in 60 min with a flow rate of 1 mL/min on a semi-preparative VYDAC HPLC column. (b) MALDI-TOF mass spectrum of the 14-AA LeuA peptide showing $[M+H]^+$ observed 1504.7, calcd 1504.7.

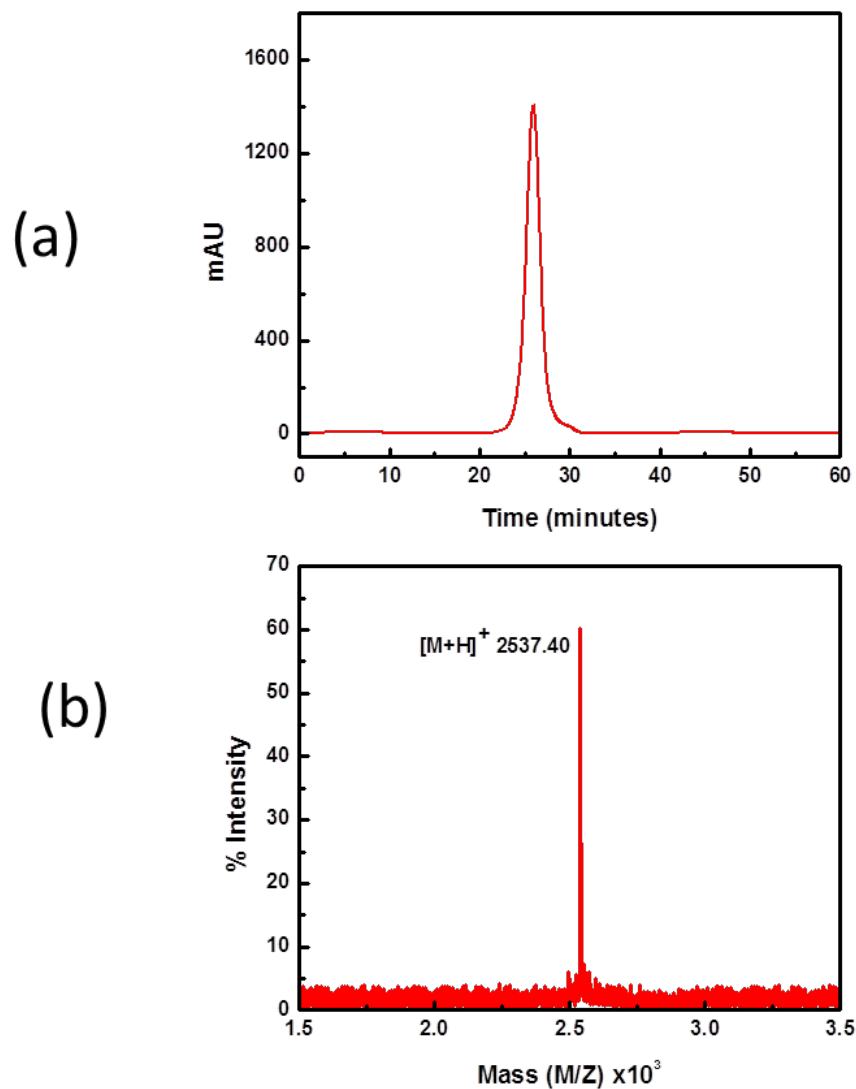


Figure S2. (a) HPLC chromatogram of the pure 24-AA LeuA peptide eluting at 26 minutes using a gradient of 30 – 95% ACN/Water (0.1% TFA) in 60 min with a flow rate of 2 mL/min on a semi-preparative VYDAC HPLC column. (b) MALDI-TOF mass spectrum of the 24-AA LeuA peptide showing $[M+H]^+$ observed 2537.4, calcd 2537.8.

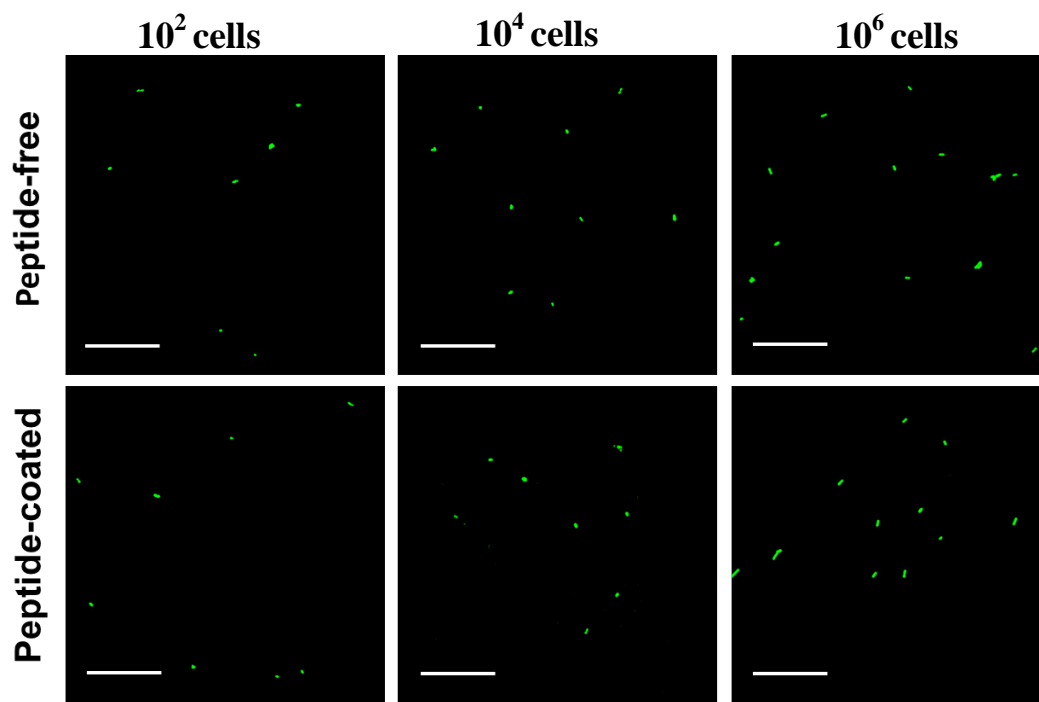
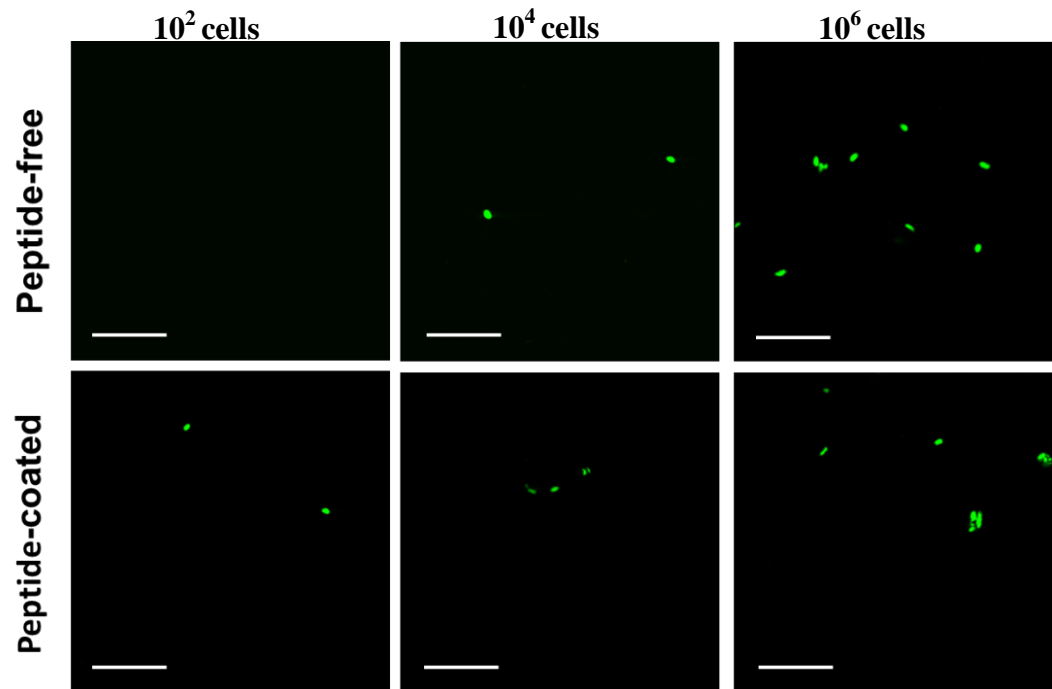
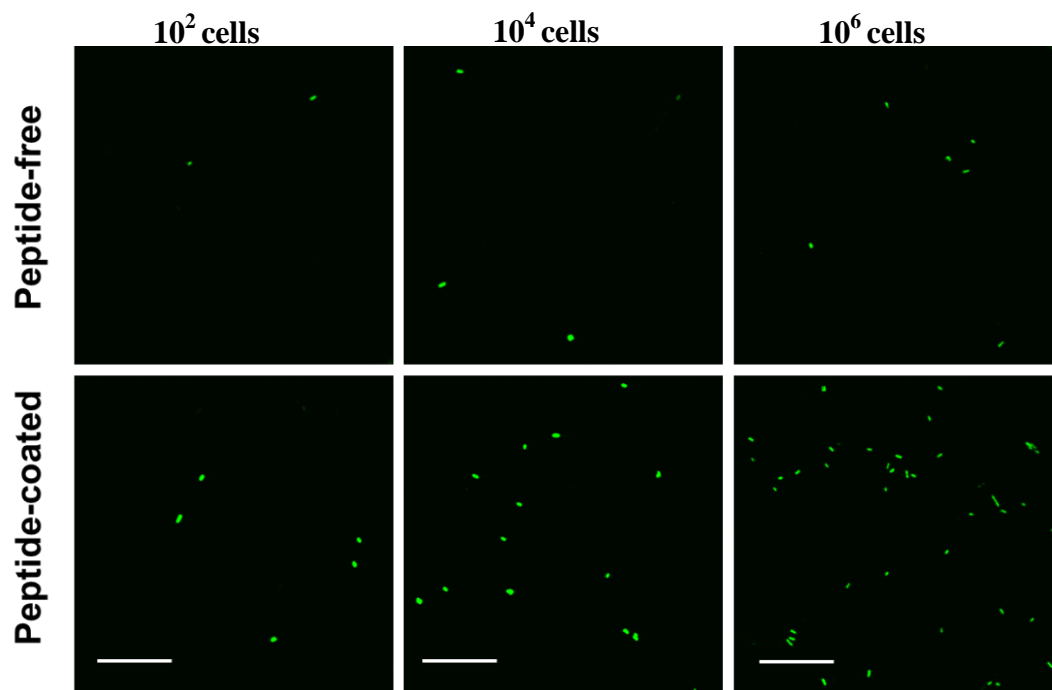


Figure S3. Confocal microscopy images showing CyQUANT labeled bacteria (*C. divergens*) bound to the peptide-free (top row) or peptide-coated (14AA LeuA peptide, bottom row) gold substrate. Peptide-free or coated surfaces were incubated with three different concentrations of *C. divergens*, 10², 10⁴, and 10⁶ cfu/mL. Scale bar 10 μ m

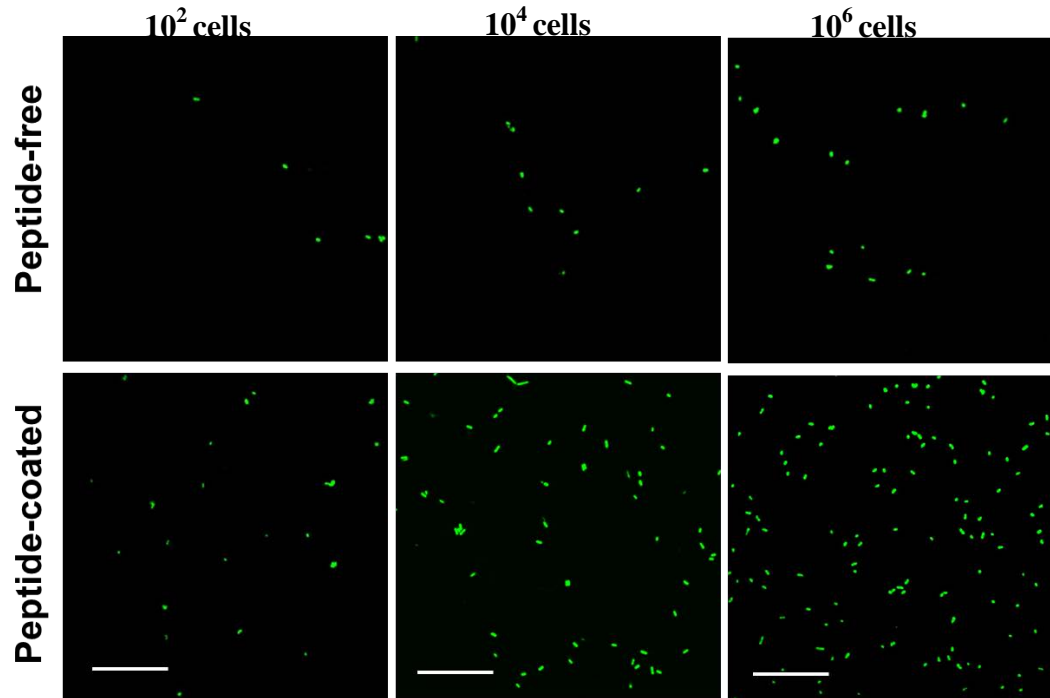
a) *E. coli*



b) *L. innocua*



c) *C. divergens*



d) *L. monocytogenes*

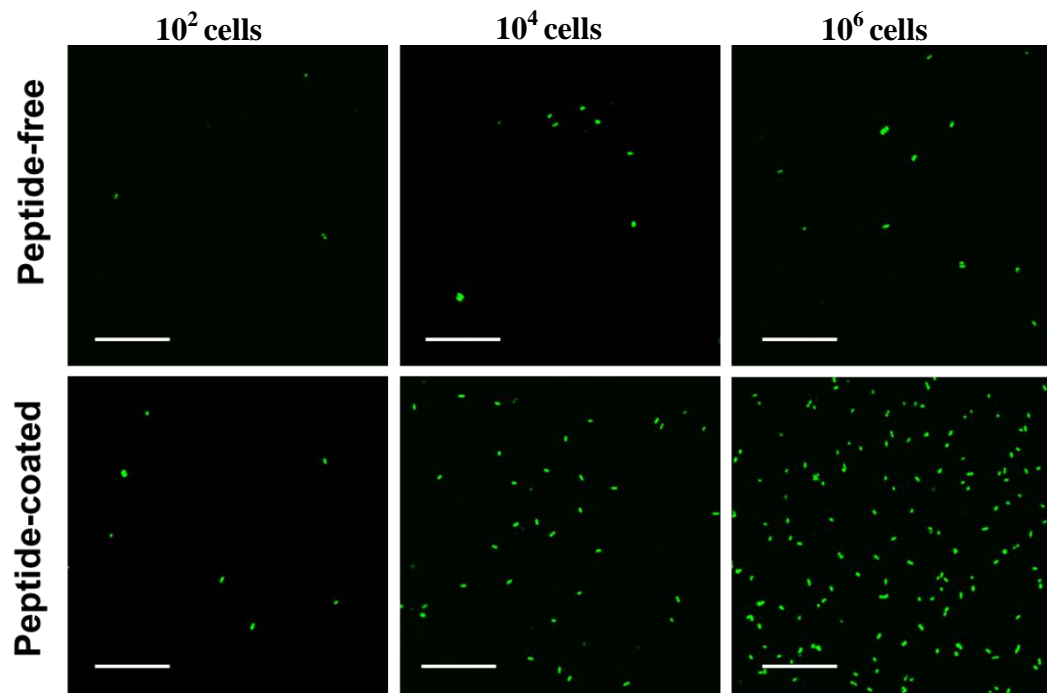


Figure S4. Confocal microscopy images showing CyQUANT labeled bacteria (4 strains) bound to the peptide-free (top row) or peptide-coated (24AA LeuA peptide, bottom row) gold substrate. Peptide-free or coated surfaces were incubated with either *E. coli* (a), *L. innocua* (b), *C. divergens* (c), or *L. monocytogenes* (d), each with three different concentrations of bacteria, 10^2 , 10^4 , and 10^6 cfu/mL. Scale bar $10\ \mu\text{m}$.