

Supplemental materials

Table S1: Primer designs to create the chimeric lysins and the final amino acid sequences of the two chimeric lysins

Target gene	Primer	Sequence (5' to 3')
<i>PlyV12 insert</i>	plyV12 fwd	CTGAACGGTGGTTCTACCCC
	plyV12 rev	TTTGAAGGTACCCCACGCTTC
<i>PlyV12 chimeric insert</i>	P10N-V12C fwd	CGTCCGCCGTACGAAAAAGATACCCCGCTGAACGG TGGTTCTACCCC
	P10N-V12C rev	GGATCCTCAATGGTGGTGATGATGGTGCGCTTTGA AGGTACCCCACGCTTC
<i>LysEF-P10 insert</i>	LysEF-P10 fwd	GCGCCGAAACCGCCGG
	LysEF-P10 rev	CGCAACTTTGAACTGCGGGTGAGACAG
<i>LysEF-P10 chimeric insert</i>	V12N-P10C fwd	GTATAGCATGGGTTGGTACGTTTATCGTCTGGCGC CGAAACCGCCG
	V12N-P10C rev	GGATCCTCAATGGTGGTGATGATGGTGCGCAACTT TGAAGTGCAGGGTGAGACA
Chimeric lysin P10N-V12C		MVKVNDVVSYLNSRVGTGIDMDGAYGFQCADLAQAIT YNFFGWFFYGNAIALASQPIPNNGFERIRVTDATQIKA GDIVVWSEHEYAQYGHVAIAAKDGYSDQTFENYAQNW LNASLTVGSPIALVRTNMYGVGYVIRPPYEKDTPLNG GSTPPKPNTKKVKVLKHATNWSPSSKGAKMASFVKGG TFEVKQQRPISSYSNQEYLIVNKGTVLGWVLSQDIE GGYGSDRVGGSKPKLPAGFTKEEATFINGNAPIITRK NKPSLSSQTAIPLYPGQSVRYLGWKSAREGYIWIYATD GRYIPVRPVGKEAWGTFFKAHHHHHH
Chimeric lysin V12N-P10C		MSNINMETAIANMYALKARGITYSMNYSRTGADGTGD CSGTVYDSLRLKAGASDAGWVLNTDSMHSWLEKNGFKL IAQNKEWSAKRGDVVIFGKKGASGGSAGHVVFISST QIIHCTWKSATANGVYVDNEATTCPYSMGWYVYRLAP KPPAPKPAKPNLPTPKGDDTMLAIYYKHLKNGNVEQW LLINGKRVLPTQTWVNEANALIKAYGGTKEVVQYNH DNFGLKLELSHPQFKVAHHHHHH

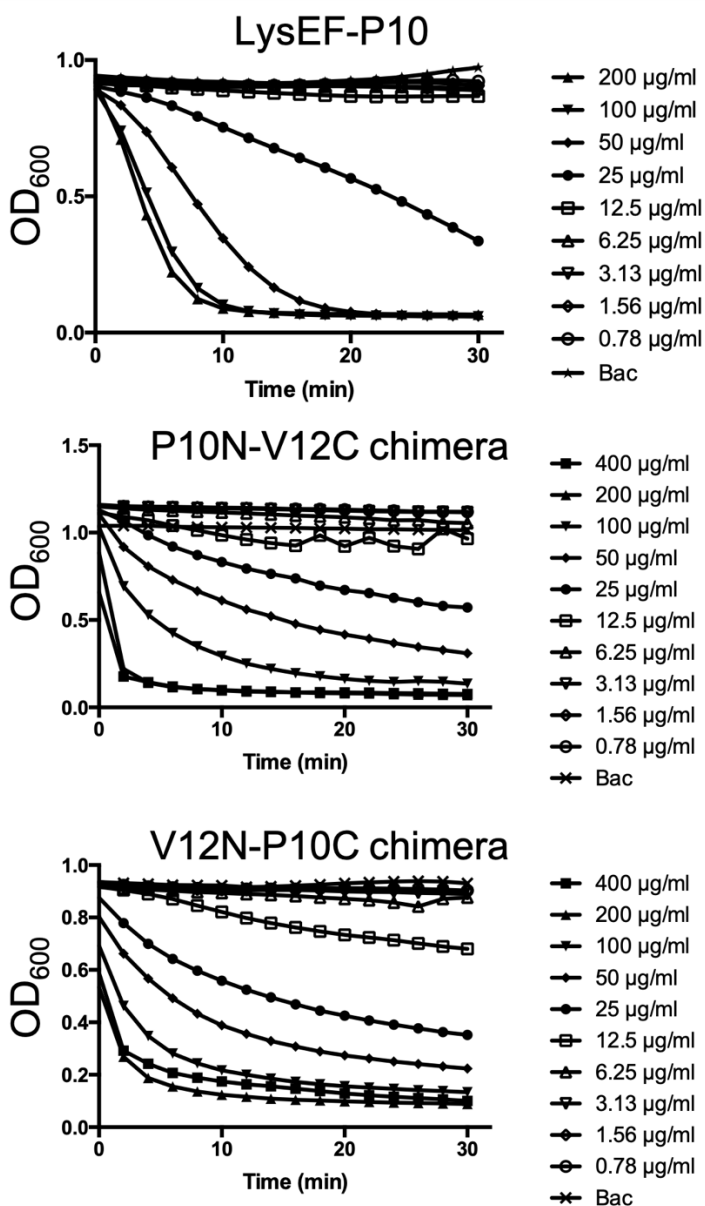


Figure S1. Dose response for other 3 lysins. Lysin concentrations that achieved >90% OD₆₀₀ reduction were used in this study.

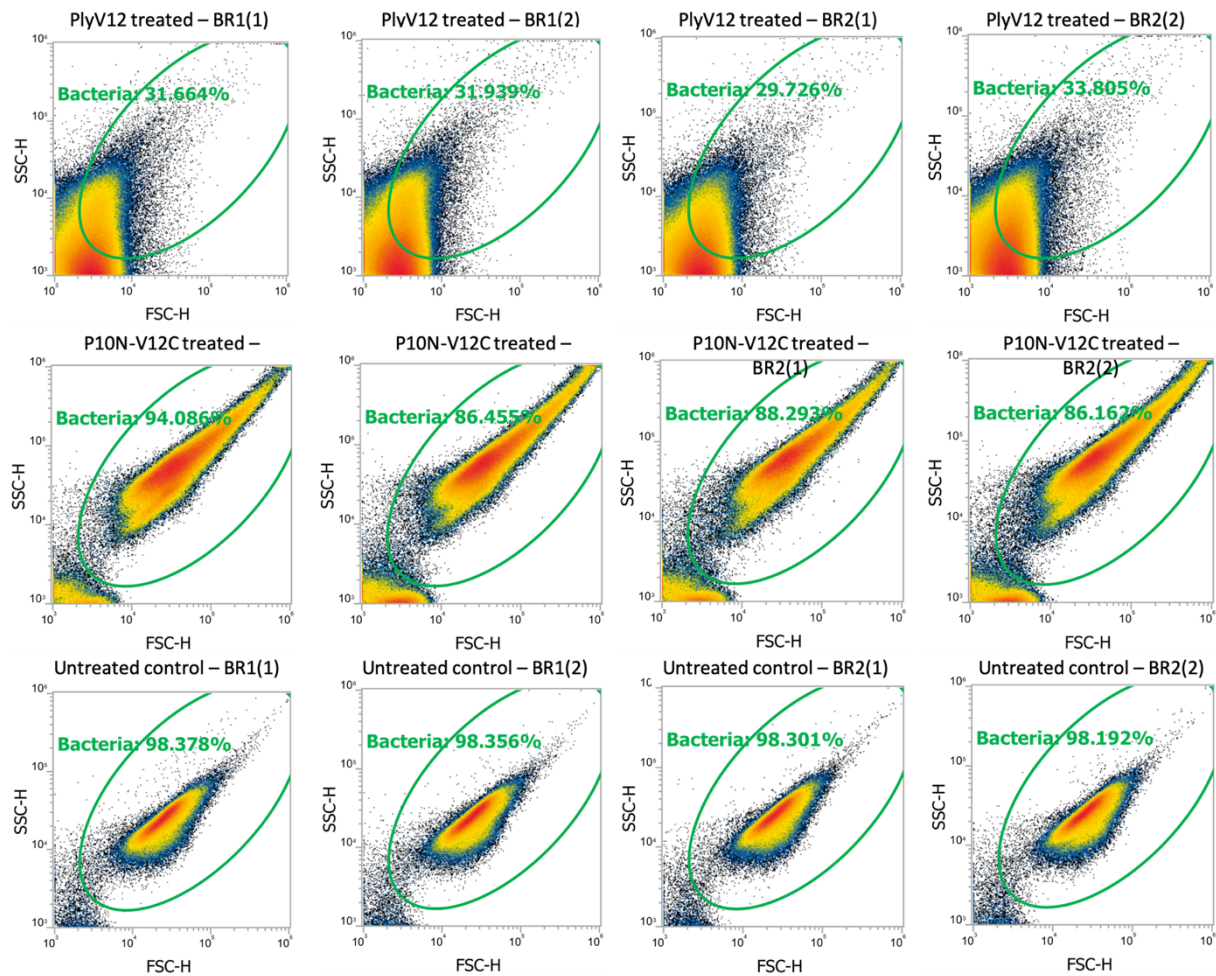


Figure S2. SSC-FSC plots of the 4 replicates that were performed. PlyV12 and P10N-V12C lysin treated *E. faecium* cells are shown in the top and middle rows, respectively. The untreated control runs are shown in the bottom row. BR1(1) refers to biological replicate 1, technical duplicate 1.

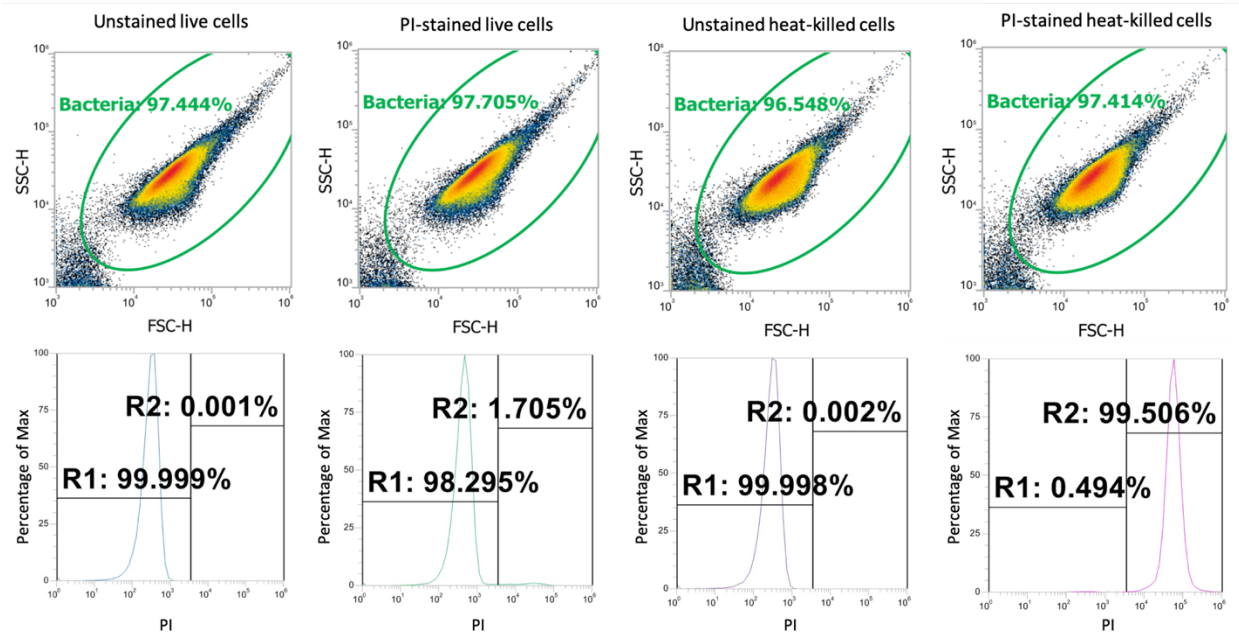


Figure S3. Controls for the flow cytometry experiments used to establish gating parameters. The FSC-SSC plots are at the top row, whereas the bottom row shows the percentage of gated cells with PI uptake. PI-negative and PI-positive cells are labeled with R1 and R2 respectively.