

Supplementary data

Table S1. Primers used in this study.

Primer	Sequence (5'-3')
R43-F	GACGGATCTTCAAGCAATGAAAGGCTAC
R43-R	GTAGCCTTTCATTGCTTGAAGATCCGTC
K45-F	CGGATCTTCAAAGGATGGCAGGCTACAAGCAAAAG
K45-R	CTTTTGCTTGTAGCCTGCCATCCTTTGAAGATCCG
K48-F	CAAAGGATGAAAGGCTACGCACAAAAGATCTCCAGTGTTG
K48-R	CAACACTGGAGATCTTTTGTGCGTAGCCTTTCATCCTTTG
K50-F	GAAAGGCTACAAGCAAGCAATCTCCAGTGTTGGGAC
K50-R	GTCCCAACACTGGAGATTGCTTGCTTGTAGCCTTTC
K139-F	CCTTCCAAGGCCTGTCCGCAGAGAAGAAGTTGAAAG
K139-R	CTTTCAACTTCTTCTCTGCGGACAGGCCTTGGAAGG
KK141-F	CCAAGGCCTGTCCAAGGAGGCAGCATTGAAAGCTGGGATAGCAG
KK141-R	CTGCTATCCCAGCTTTCAATGCTGCCTCCTTGGACAGGCCTTGG
K144-F	CAAGGAGAAGAAGTTGGCAGCTGGGATAGCAGC
K144-R	GCTGCTATCCCAGCTGCCAACTTCTTCTCCTTG
TNF- α -F	ACTGAACTTCGGGGTGATCG
TNF- α -R	AGGGTCTGGGCCATAGAACT
IL6-F	AGCCAGAGTCCTTCAGAGAGAT
IL6-R	GAGAGCATTGGAAATTGGGGT
IL-1 β -F	TGCCACCTTTTGACAGTGATG
IL-1 β -R	TGTGCTGCTGCGAGATTTGA
β -actin-F	CTGCCGCATCCTCTTCCTC
β -actin-R	GGAAAAGAGCCTCAGGGCAT

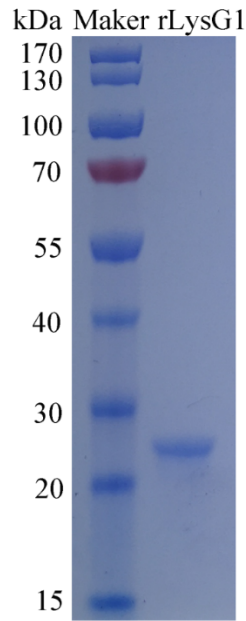


Figure S1. SDS-PAGE analysis of rLysG1. Purified rLysG1 was analyzed by SDS-PAGE and viewed after staining with Coomassie brilliant blue R-250.

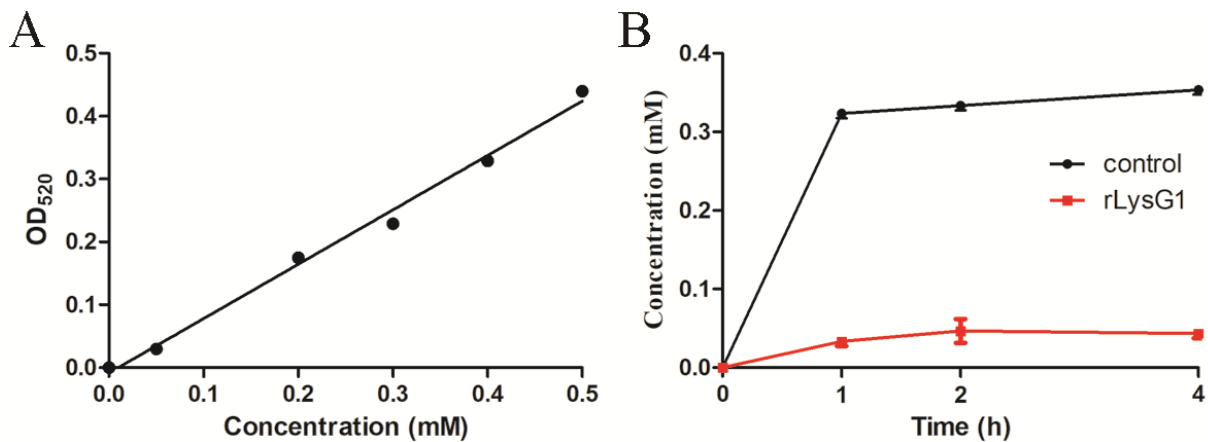


Figure S2. Analysis of the potential digestive effect of rLysG1 on peptidoglycan (PGN). **(A)** The standard curve of N-acetylglucosamine. Different concentrations of N-acetylglucosamine were incubated with 3, 5-Dinitrosalicylic acid (DNS) reagent, and the absorbance was measured at OD₅₂₀. **(B)** The release of N-acetylglucosamine in PGN after incubation with a commercial lysozyme (control) or rLysG1 was measured by the above DNS method at different time. Values are shown as means \pm SD ($n = 3$). N, the number of replicates.

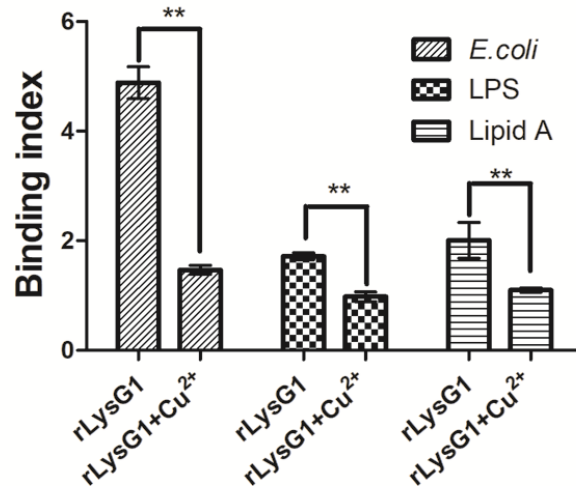


Figure S3. The effect of Cu²⁺ on the binding of rLysG1 to bacteria and bacterial components. rLysG1 was incubated with *Escherichia coli*, LPS, or lipid A in the presence or absence of Cu²⁺, and the binding of rLysG1 was detected by ELISA. Values are shown as means \pm SD ($n = 3$). N, the number of replicates. **, $p < 0.01$.