

1 Supporting Information for

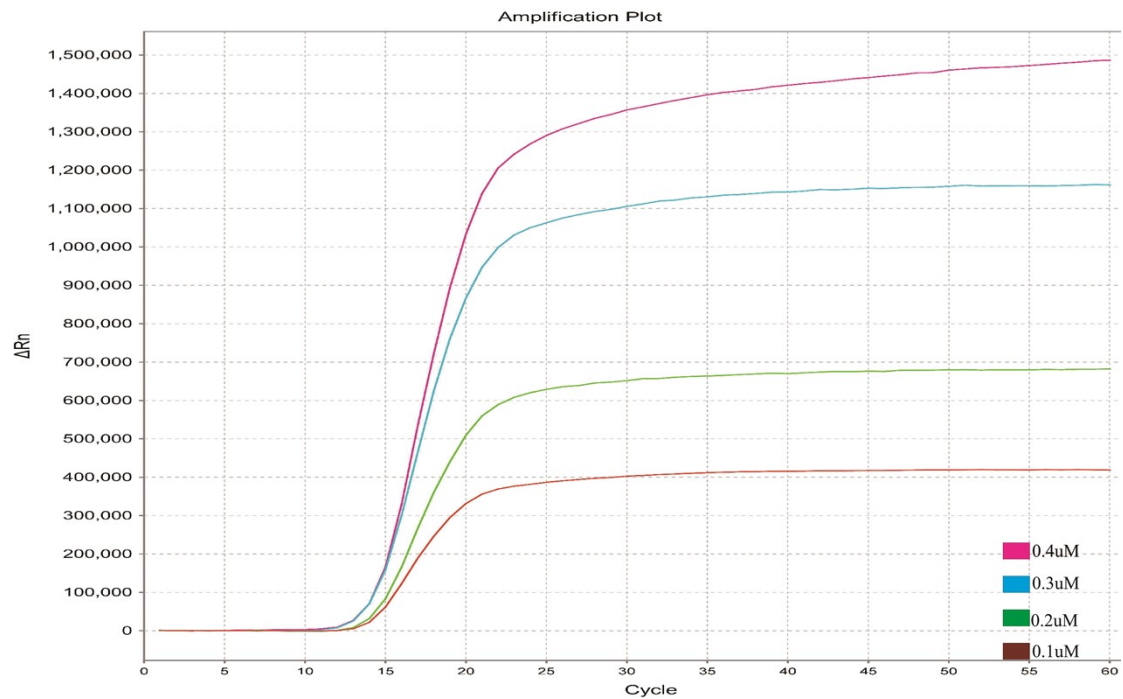
2 **Development of a novel rapid visual LAMP platform for detection of methicillin-**
3 **resistant *Staphylococcus aureus* (MRSA) in food**

4 Kaiwei Hu^{a#}, Qiuyan Chen^{a#}, Xiaozhen Xu^a, Qijie Lin^a, Jianmin Zhang^a, Xiaowei Wu
5 ^{b*}, Chenggang Xu^{a*}

6 **Table S1. The EP-LTT values and CT values of each positive sample**

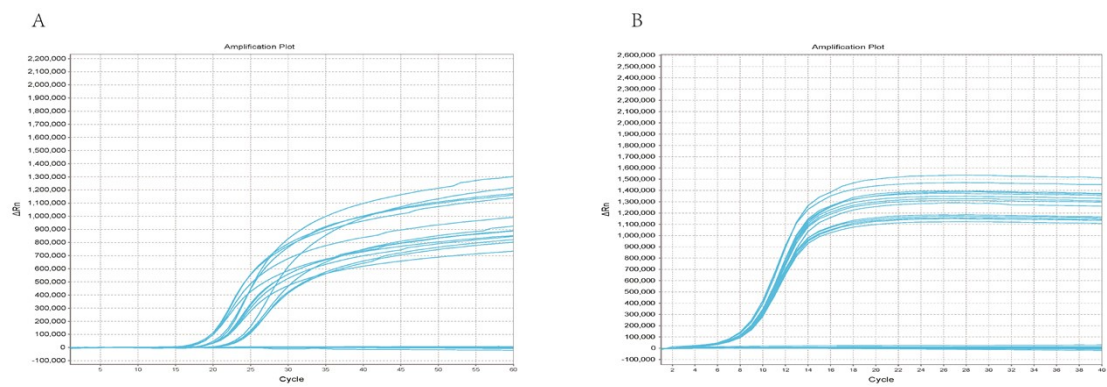
Positive sample	EP-LAMP (TT)	qpcr (CT)
4	12.26	7.73
7	16.22	7.79
11	10.22	7.74
19	17.57	7.73
20	16.74	7.85
23	11.27	8.04
24	15.86	7.84
25	17.49	7.49
30	10.07	7.86
31	12.03	7.39
32	9.88	7.96
38	17.80	8.04
39	17.09	7.85
40	17.49	8.12

7



8

9 **Figure S1.EP-LAMP reaction *nuc* gene probe concentration optimization**

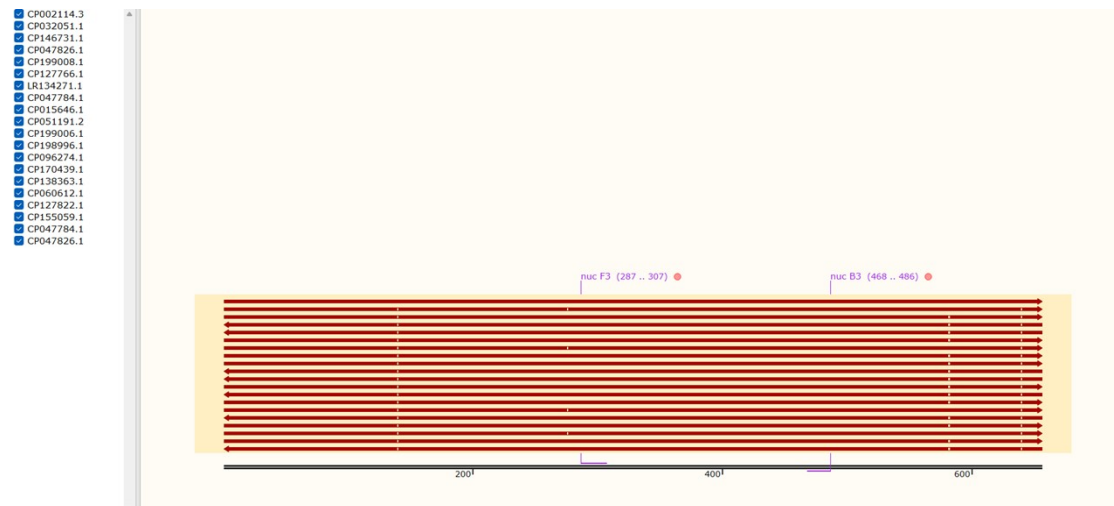


10

11 **Figure S2. Detection of *Staphylococcus aureus* in actual samples using EP-**
 12 **LAMP and SYBR Green qPCR assays, (A) Detection of *S. aureus* in actual**
 13 **samples using the EP-LAMP assay, (B) Detection of *S. aureus* in actual samples**
 14 **using the qPCR assay**

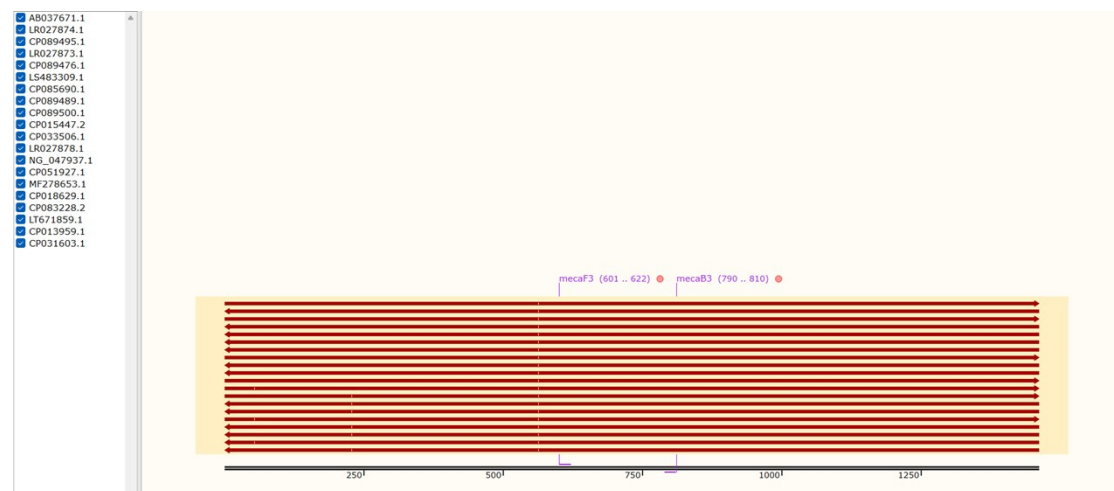
15

16



17 **Figure.S3. Sequence alignment of multiple *Staphylococcus aureus* genes related**
 18 **to *nuc***

19



20 **Figure.S4. Sequence alignment of multiple *Staphylococcus aureus* genes related**
 21 **to *meca***

Confirmation of Publication and Licensing Rights

September 11th, 2025

Subscription Type: Student Plan - Academic
Agreement number: GN28QQSMQ2
Publisher Name: analytical methods

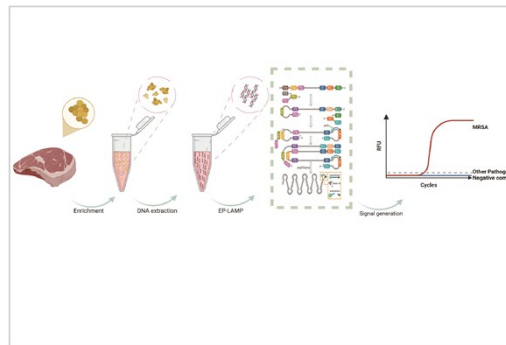
Citation to Use: Created in BioRender. Hu, k. (2025) <https://BioRender.com/4zusqq6>

To whom this may concern,

This document is to confirm that Yiteng Kaisi has been granted a license to use the BioRender Content, including icons, templates, and other original artwork, appearing in the attached Completed Graphic pursuant to BioRender's [Academic License Terms](#). This license permits BioRender Content to be sublicensed for use in publications (journals, textbooks, websites, etc.).

All rights and ownership of BioRender Content are reserved by BioRender. All Completed Graphics must be accompanied by the following citation: "Created in BioRender. Hu, k. (2025) <https://BioRender.com/4zusqq6>".

BioRender Content included in the Completed Graphic is not licensed for any commercial uses beyond use in a publication. For any commercial use of this figure, users may, if allowed, recreate it in BioRender under an Industry BioRender Plan.



For any questions regarding this document, or other questions about publishing with BioRender, please refer to our [BioRender Publication Guide](#), or contact BioRender Support at support@biorender.com.

22

23 **Figure.S5. The abstract image was created by biorender and has been licensed**
24 **by biorender.**