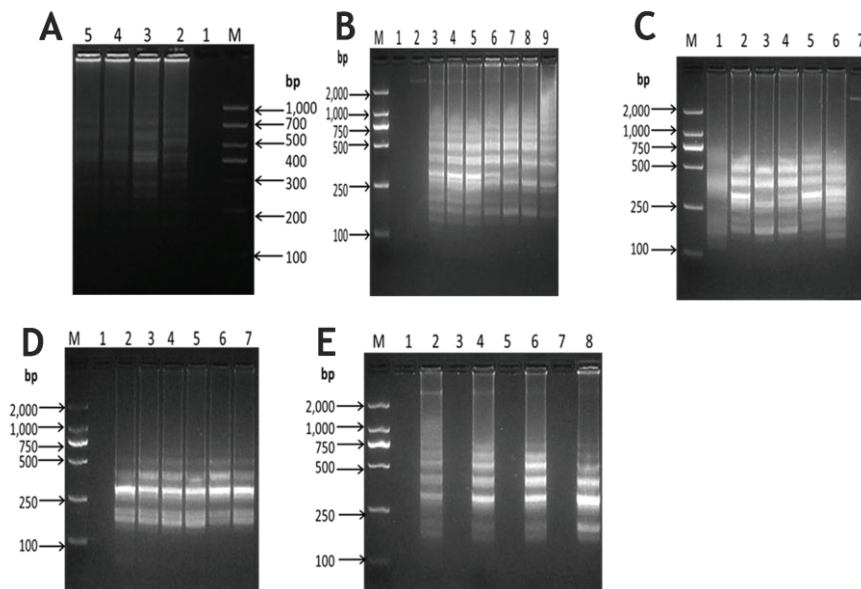


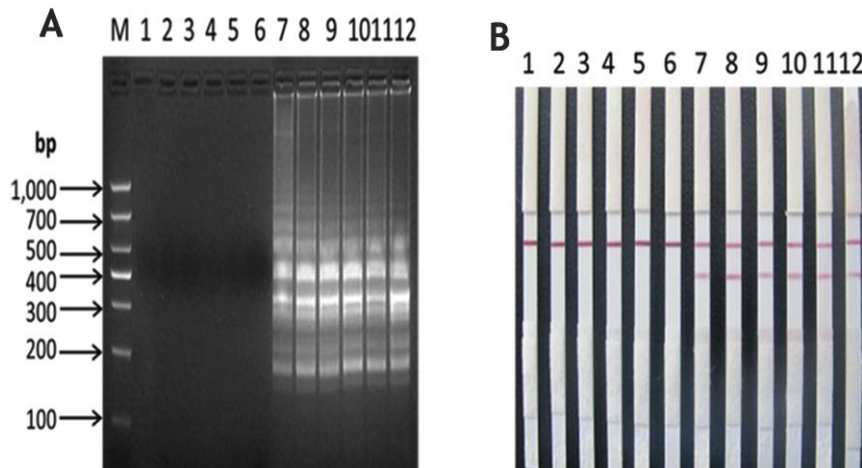
Supplementary data

Supplementary data #1 (Figure S1): Optimization of the *Salmonella* LAMP reaction.

Lane M for all: DNA markers. A. The effect of altering the ratio of inner primers to outer primers. Lane 1: negative control; Lane 2: 5:1; Lane 3: 4:1; Lane 4: 3:1; Lane 5: 2:1. B. The effect of altering the concentration of dNTPs. Lane 1: negative control; Lane 2: 0.1mM; Lane 3: 0.3mM; Lane 4: 0.5 mM; Lane 5: 0.8 mM; Lane 6: 1.0 mM; Lane 7: 1.1 mM; Lane 8: 1.2 mM; Lane 9: 1.4 mM. C. The effect of altering MgSO₄ concentration. Lane 1: 1 mM; Lane 2: 2 mM; Lane 3: 3 mM; Lane 4: 4 mM; Lane 5: 6 mM; Lane 6: 8 mM; Lane 7: negative control. D. The effect of altering the amplification temperature. Lane 1: negative control; Lane 2: 54°C; Lane 3: 56°C; Lane 4: 58°C; Lane 5: 60°C; Lane 6: 62°C; and Lane 7: 64°C. E. The effect of altering the reaction time. Lane 1 is a negative control. Lanes 3, 5, and 7 have no template DNA. Lane 2: 20 min; Lane 4: 30min; Lane 6: 40 min; Lane 8: 60 min.



Supplementary data #2 (Figure S2): LAMP *Salmonella* specificity. As templates, reactions used DNA from different serovars of *Salmonella enterica* subsp. *enterica* as well as other pathogenic bacteria. Results were analyzed with (A) 2.5% AGE and (B) LFD. Lane 1: *Pasteurella multocida*; Lane 2: *Escherichia coli*; Lane 3: *Staphylococcus Aureus*; Lane 4: *Avian aspergillus*; Lane 5: *Pseudomonas aeruginosa*; Lane 6: *Haemophilus paragallinarum*; Lane 7: *S. enterica* subsp. *enterica* Pullorum-CVCC530; Lane 8: *S. enterica* subsp. *enterica* Pullorum-CVCC1791; Lane 9: *S. enterica* subsp. *enterica* Typhimurium; Lane 10: *S. enterica* subsp. *enterica* Enteritidis; Lane 11: *S. enterica* subsp. *enterica* Gallinarum; and Lane 12: *S. enterica* subsp. *enterica* Pullorum-CVCC1802.



Supplementary data #3 (Figure S3): Comparative analysis of the sensitivity of various methods of *Salmonella* detection. (A) LAMP, (B) LAMP combined with calcein, (C) LAMP-LFD, and (D) PCR. Lane M: DNA markers. Lane/tube 1: negative control (no template); Lane/tube 2: 89 ng/ μ L *Salmonella* DNA; Lane/tube 3: 8.9 ng/ μ L *Salmonella* DNA; Lane/tube 4: 890 pg/ μ L *Salmonella* DNA; Lane/tube 5: 89 pg/ μ L *Salmonella* DNA; Lane/tube 6: 8.9 pg/ μ L *Salmonella* DNA; Lane/tube 7: 890 fg/ μ L *Salmonella* DNA; Lane/tube 8: 89 fg/ μ L *Salmonella* DNA; Lane/tube 9: 8.9 fg/ μ L *Salmonella* DNA.

