Supporting information

SERS-Based Lateral Flow Strip Biosensor for Simultaneous Detection of *Listeria monocytogenes* and *Salmonella enterica* Serotype Enteritidis

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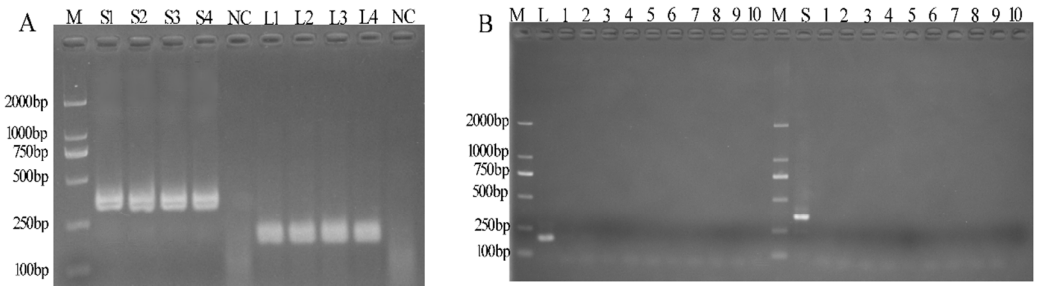

Figure S1.

Electrophoresis images of primers specific for *S.* Enteritidis and *L. monocytogenes* using four of *S.* Enteritidis (A S1-S4), four of *L. monocytogenes* (A L1-L4) and nine of other bacteria. Lane M: 2000 bp DNA ladder, NC: negative control (without DNA template), lane S1: *Salmonella* enteritidis, lane S2: *Salmonella enterica subsp.* enterica, lane S3: *Salmonella* Enteritidis ATCC13076, lane S4: *Salmonella* enteritidis 160609; B: lane L: *L. monocytogenes*, lane S: *Salmonella* enteritidis, lane 1: *Salmonella paratyphi-A*, lane 2: *Salmonella cholerae-suis var. kunzendorf*, lane 3: *Escherichia coli* O157:H7, lane 4: *Shigella flexneri*, lane 5: *Escherichia coli,* lane 6: *Staphylococcus aureus*, lane 7: *Shigella sonnei*, lane 8: *Enterobacter aerogenes*, lane 9: *Campylobacter jejuni subsp. jejuni.*

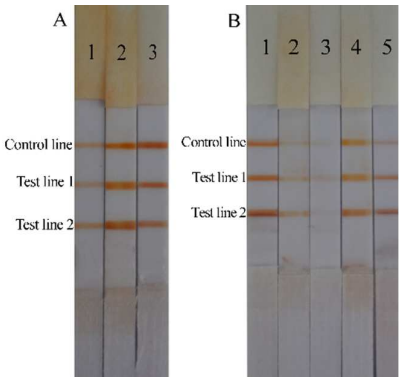

Figure S2

Optimization the type of NC membrane (A) and the type of running buffer (B). A: 1: HF90, 2: HF135, 3: HF180; B: 1: PBS (pH=7.4), 2: PBS (pH=5.7), 3: PBS (pH=8.5), 4: PBS with 0.05%Tween 20, 5: Tris-HCl buffer (pH=7.4)

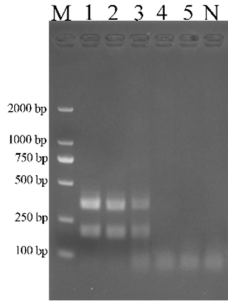

Figure S3

Sensitivity of RPA-AGE for simultaneous detection of *S.* Enteritidis and *L. monocytogenes*. Lane M: D2000 DNA ladder marker; lane 1: 2.7×10^6 CFU/mL of *S.* Enteritidis and 1.9×10^6 CFU/mL of *L. monocytogenes*; lane 2: 2.7×10^5 CFU/mL of *S.* Enteritidis and 1.9×10^5 CFU/mL of *L. monocytogenes*; lane 3: 2.7×10^4 CFU/mL of *S.* Enteritidis and 1.9×10^4 CFU/mL of *L. monocytogenes*; lane 4: 2.7×10^3 CFU/mL of *S.* Enteritidis and 1.9×10^3 CFU/mL of *L. monocytogenes*; lane 5: 2.7×10^2 CFU/mL of *S.* Enteritidis and 1.9×10^2 CFU/mL of *L. monocytogenes*; lane N: negative control (without DNA template). *L. monocytogenes* and *S.* Enteritidis produced two visual bands at 180 bp and 267 bp, respectively.

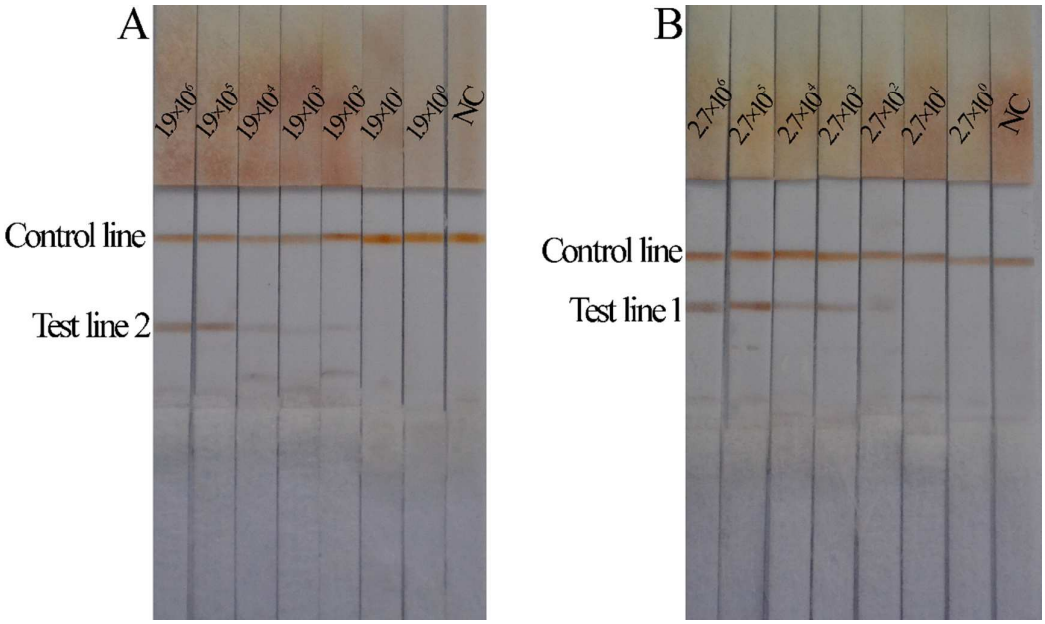

Figure S4

Sensitivity results of RPA-LF for the detection of *L. monocytogenes* (A) and *S.* Enteritidis (B). *L. monocytogenes* and *S.* Enteritidis concentrations ranged from 2.7 × 10^6 CFU/mL to 2.7 × 10^0 CFU/mL and 1.9 × 10^6 CFU/mL to 1.9 × 10^0 CFU/mL, respectively.