

Supplementary

Aptamer-conjugated Core-shell Magnetic Nanoparticles for Quick and Specific Separation of Gram-negative Bacteria

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S1. Absorbance of Aptamer 8.28A at 260 nm

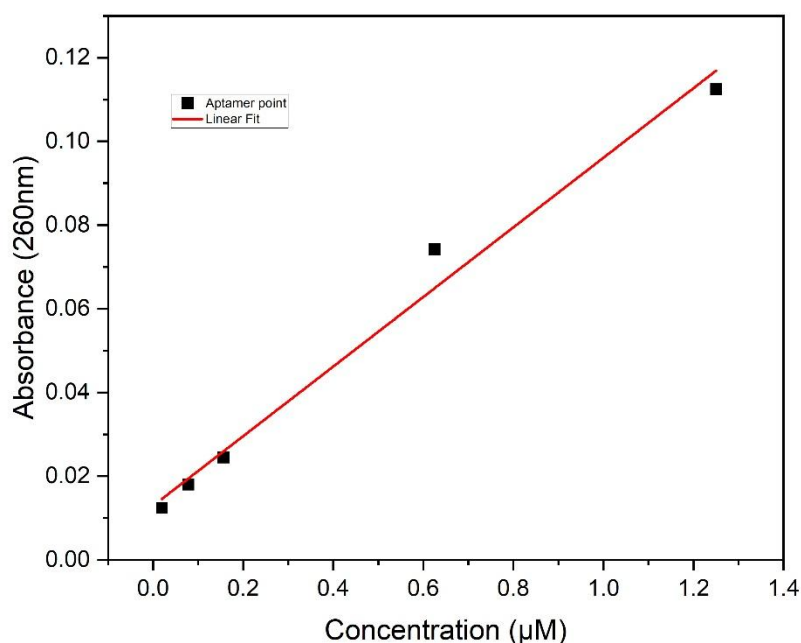


Fig. S1. Calibration curve of aptamer absorbance versus concentration. Black squares represent measured absorbance points used to generate the linear fit (red line).

S2. Determine the bacteria number

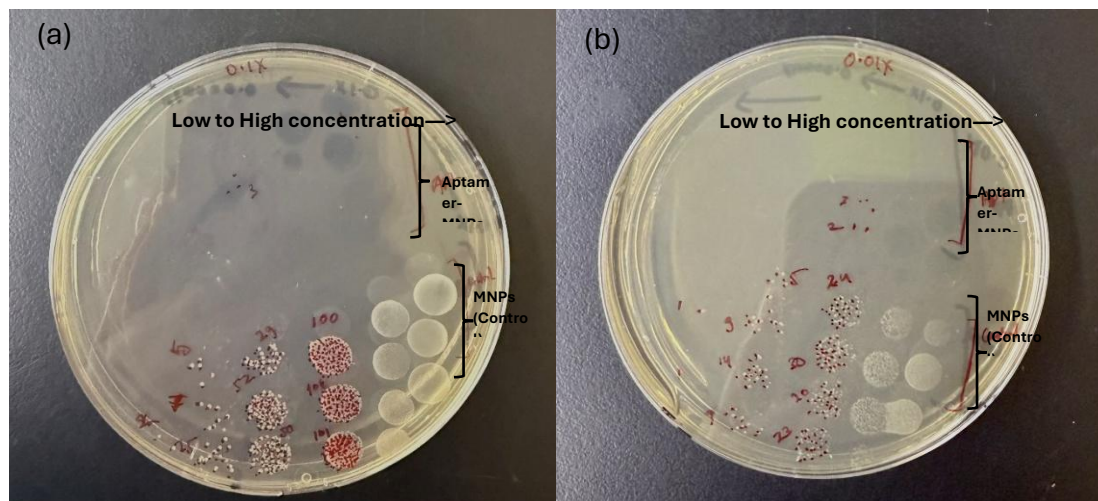


Fig. S2. Plate count to determine the bacteria number in the supernatant of diluted solutions after magnetic separation with aptamer- $\text{Fe}_3\text{O}_4@\text{SiO}_2$ MNPs and control ($\text{Fe}_3\text{O}_4@\text{SiO}_2$ MNPs). (a) Bacterial colony morphology observed in the supernatant of the stock suspension with 4.5×10^7 CFU/mL. (b) Bacterial colony morphology observed in the supernatant of the diluted stock suspension at 3×10^6 CFU/mL. For each concentration, the upper area is the bacterial colony morphology for bacterial suspension treated with aptamer-conjugated MNPs, and the lower area is the bacterial colony morphology represent bacterial suspension treated with control, free MNPs.