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Electronic supplementary information (ESI)

Bacteriophage-based Nanoprobes for Rapid Bacteria Separation

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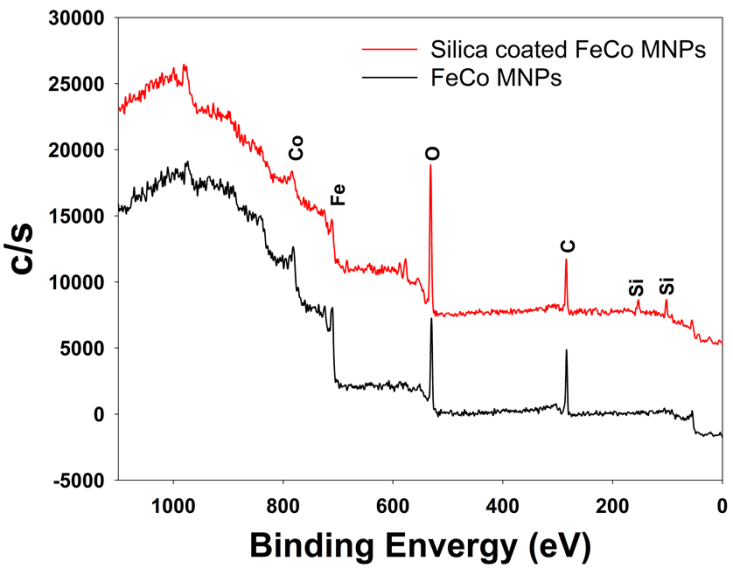

Fig. S1 The XPS spectra of FeCo MNPs (black line) and silica coated FeCo MNPs (red line).

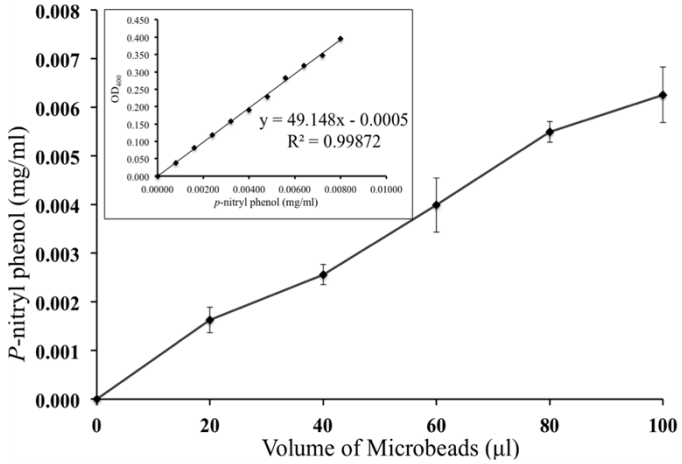

Fig. S2 Biotin binding capacity of streptavidin-coated microbeads.

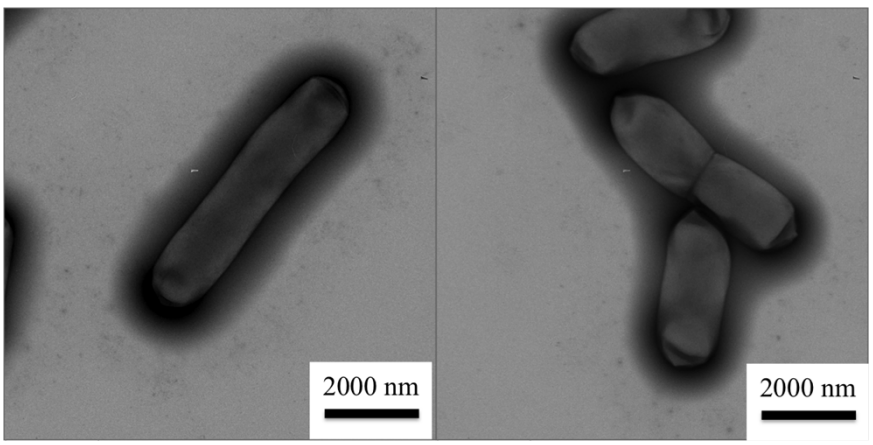

Fig. S3 Transmission electron microscope images of negative uranyl acetate staining of *E. coli* K21 cells.

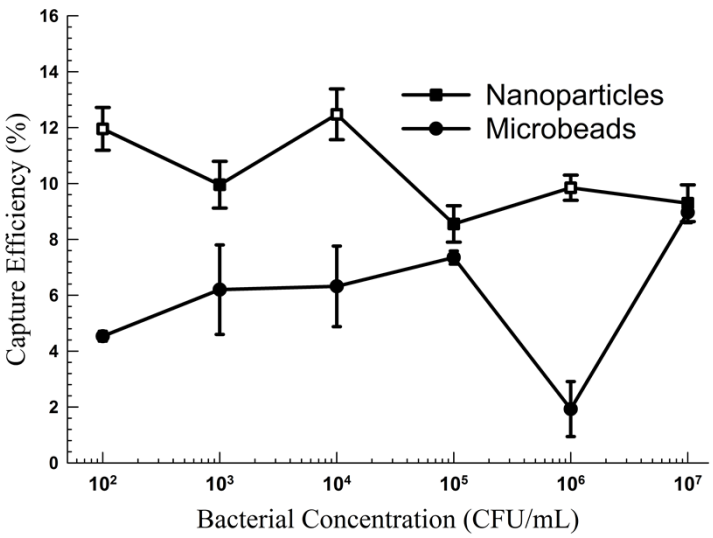

Fig. S4 The capture efficiency of streptavidin coated magnetic nanoparticles (square line) and streptavidin coated magnetic microbeads (round line).

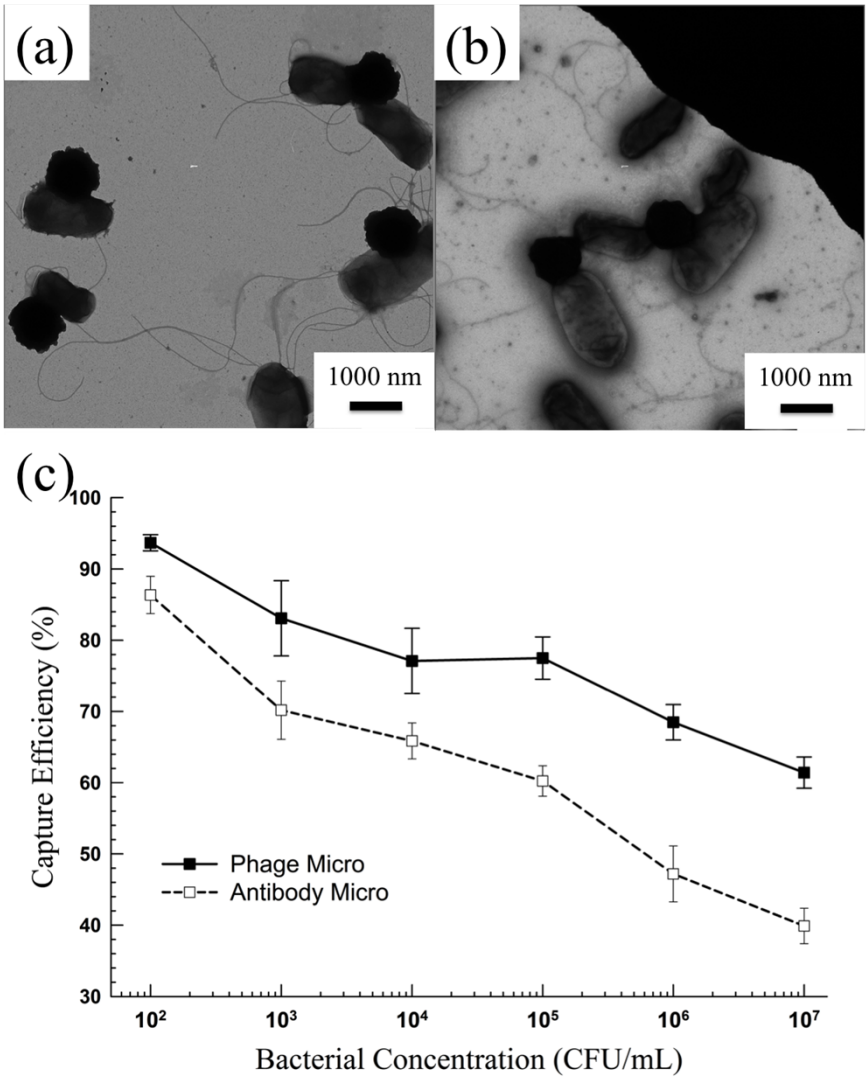

Fig. S5 TEM images of microprobes bound to *E. coli* K12: a) antibody-conjugated microbeads and b) phage-conjugated microbeads, c) comparison the capture efficiency between the two magnetic microprobes: phage magnetic microprobes (solid square line) and antibody magnetic microprobes (hollow square line).