

Supporting Information

Aptamer Lateral Flow Assays for Rapid and Sensitive Detection of Cholera Toxin

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Supporting Figures:

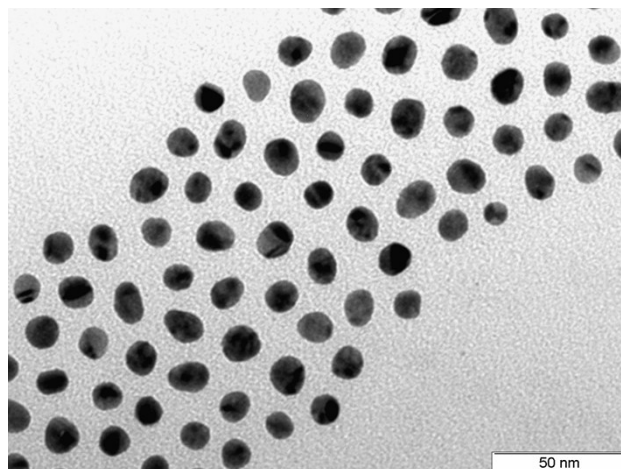


Fig. S1: Representative TEM image of AuNPs.

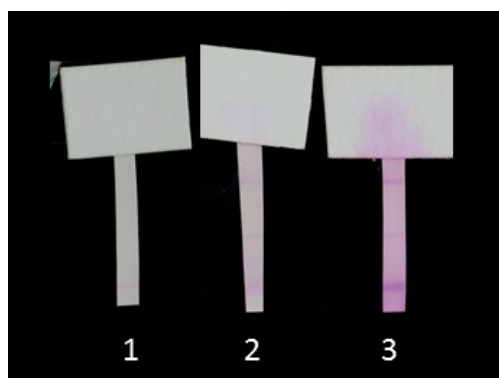


Fig S2: Optimization of liposome volumes for GM1-aptamer sandwich. 1: 0.5 μ l, 2: 2 μ l, 3: 10 μ l; CT-B concentration: 250 ng/ml.

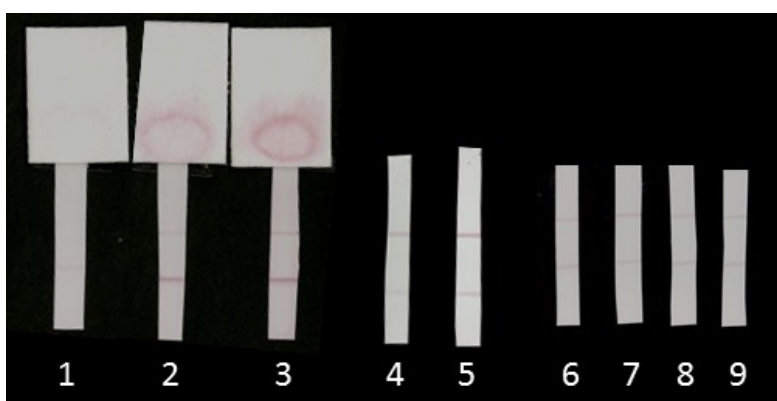


Fig S3: Optimization of AuNP concentration, membrane pore size and incubation times for the competitive LFA. 1: 2 μ l AuNPs@CT916, 2: 5 μ l AuNPs@CT916, 3: 10 μ l AuNPs@CT916; 4: HF750, 5: HF180; 6: incubation time 0 min; 7: incubation time 5 min; 8: incubation time 10 min; 9: incubation time 30 min CT-B concentration was always 0 ng/ml for 1-3, 1 μ g/ml for 4-9.

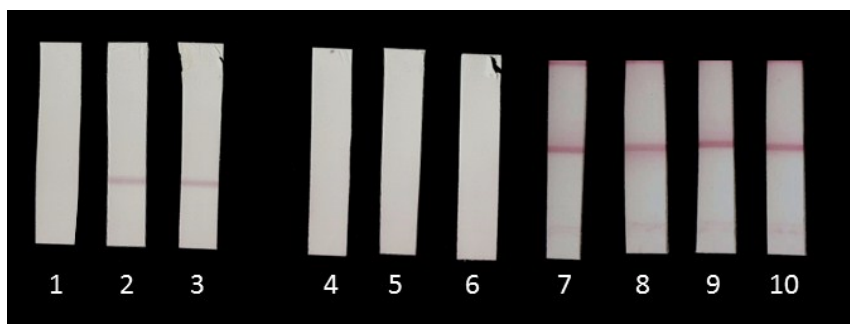


Fig S4: Optimization of antibody concentration, immobilization buffer and AuNP@CT916 incubation time with sample for the aptamer-antibody sandwich. 1: Carbonate buffer pH 9, 6 mg/ml; 2: Carbonate buffer pH 9, 1 mg/ml; 3: Carbonate buffer pH 9, 0.4 mg/ml; 4: Tris-HCl pH 8, 6 mg/ml; 5: Tris-HCl pH 8, 1 mg/ml; 6: Tris-HCl pH 8, 0.4 mg/ml; 7: incubation time 0 min; 8: incubation time 5 min; 9: incubation time 10 min; 10: incubation time 30 min; CT-B concentration was always 250 ng/ml; control lines omitted.

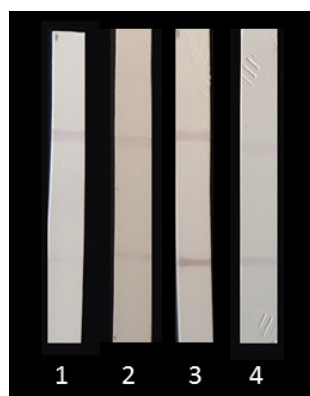


Fig S5: Optimization of antibody incubation times in aptamer-antibody-antibody sandwich. 1: incubation time 0 min; 2: incubation time 5 min; 3: incubation time 10 min; 4: incubation time 30 min; CT-B concentration was 500 ng/ml, AuNP@CT916 incubation time with sample was 10 min.