

**Fluorescence based immunochromatographic sensor for monitoring
chlorpheniramine and its comparison with a gold nanoparticle-based
lateral-flow strip**

(Supplementary Material)

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Table S1 Cross-reactivity of mAbs with CPM and analogues.

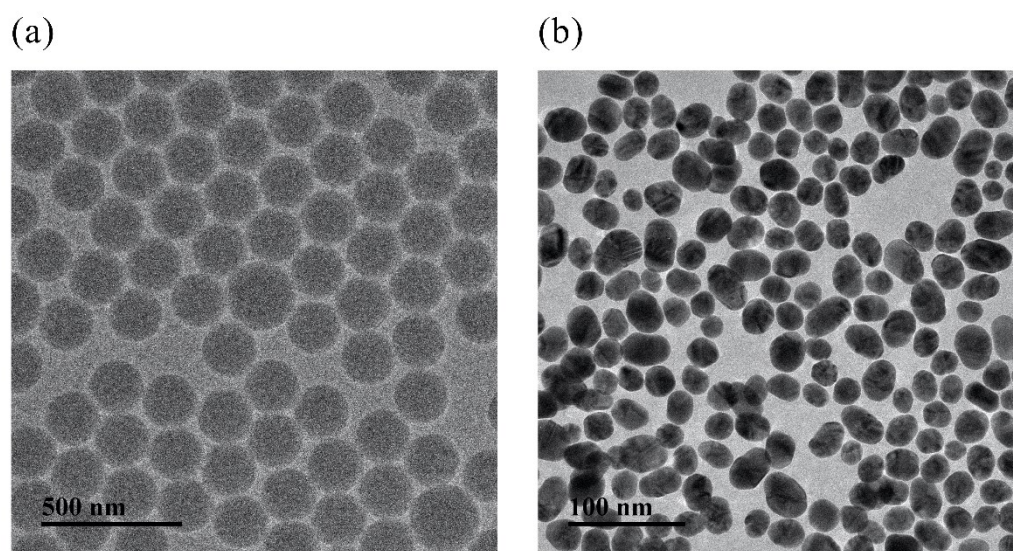


Fig. S1 Scanning electron microscope image of (a) fluorescent microsphere and (b) gold nanoparticle.

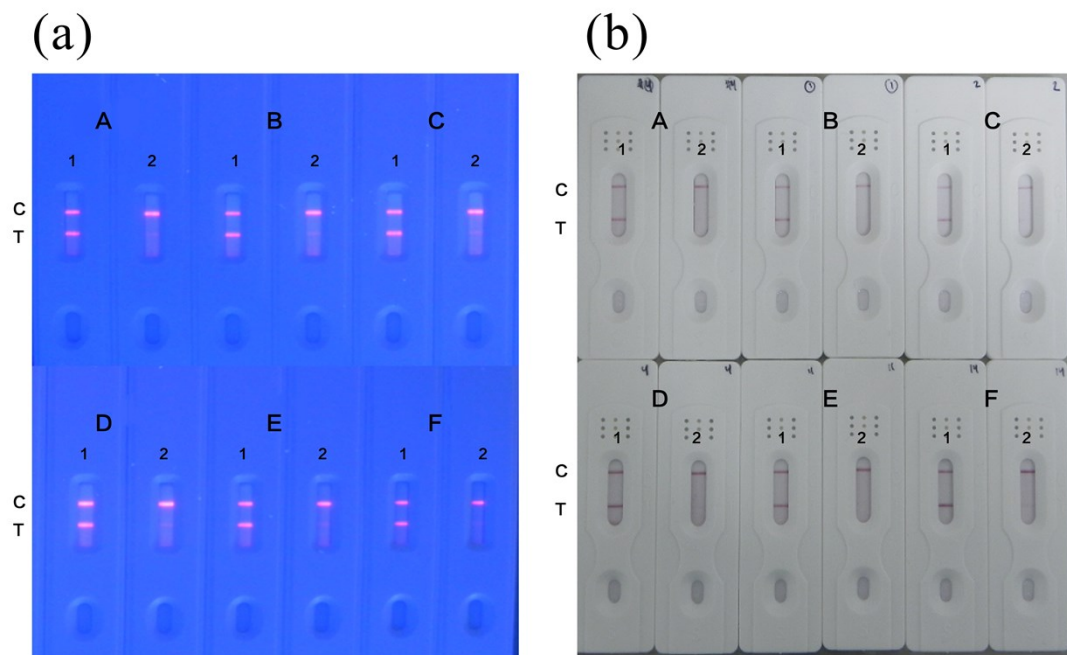
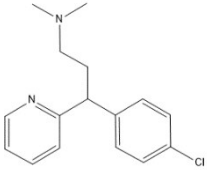
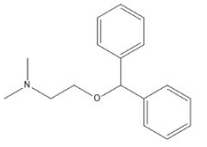
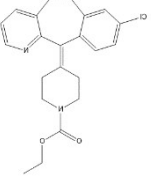
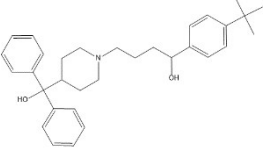
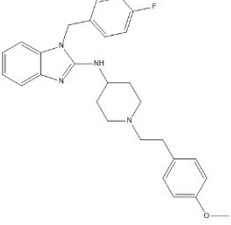
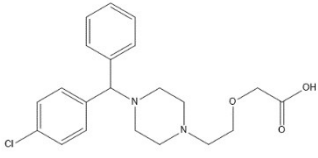


Fig. S2 Optimization of suspension buffer with different surfactant reagents: A = basic buffer, B = PVP, C = PEG, D = BSA, E = Tween-20, F = ON-870. (a) FM-ICS assay, 1 represents CPM concentration of 0 ng/mL, 2 represents CPM concentration of 10 ng/mL. (b) GNP-ICS assay, 1 represents CPM concentration of 0 ng/mL, 2 represents CPM concentration of 100 ng/mL.

Table S1 Cross-reactivity of mAbs with CPM and analogues.

Chemical compound	Structure	IC ₅₀ (ng/mL)	Cross-reaction (%)
Chlorpheniramine		0.98	100
Diphenhydramine		> 50	< 1.8
Loratadine		> 50	< 1.8
Terfenadine		> 50	< 1.8
Astemizole		> 50	< 1.8
Cetirizine		> 50	< 1.8