

Electronic Supplementary Information (ESI)

A simple fluorescence-based lateral flow test platform for rapid influenza B virus screening

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Figure S1 TEM image of the Cy5-SiNPs before antibody conjugation (upper panel) and (b) characterization of the particles before and after antibody conjugation using dynamic light scattering (lower panel).

Figure S2 Element distribution analysis within the T-line position in a presence (upper panel) and absence (lower panel) of influenza B virus proteins was performed using EDX analysis.

Figure S3 Fluorescence signal intensity and fluorescence image analysis of the test device corresponded to different antibody/particle ratios.

Figure S4 Fluorescence signal intensity and fluorescence image analysis of the test device corresponded to different reaction time, including 10, 20, and 30 min.

Figure S5 A linear relationship between the relative signal intensity and influenza B virus protein concentrations. Arrow indicates limit of detection (LOD)

Figure S6 A linear relationship between the relative signal intensity and influenza B virus proteins in viral transport media (VTM) ranging from 0.14 to 17.5 µg per test. Arrow indicates LOD

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Figure S1

	Size (nm)	Charge (mV)
SiNP-COOH	152 ± 6	-46 ± 3
SiNP-MAb Flu B	200 ± 1	-23 ± 3

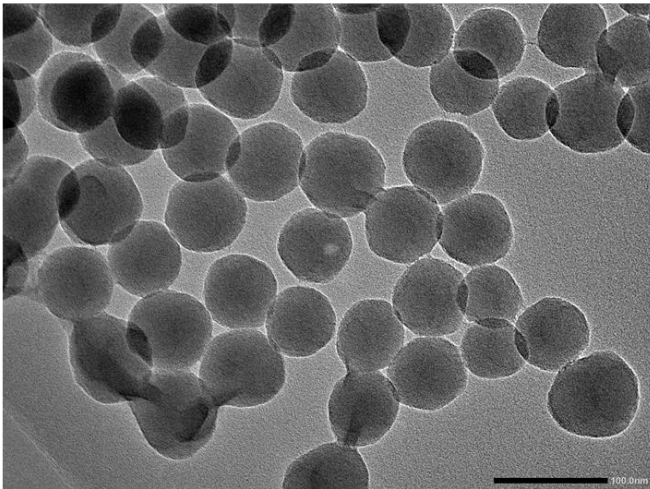


Figure S2

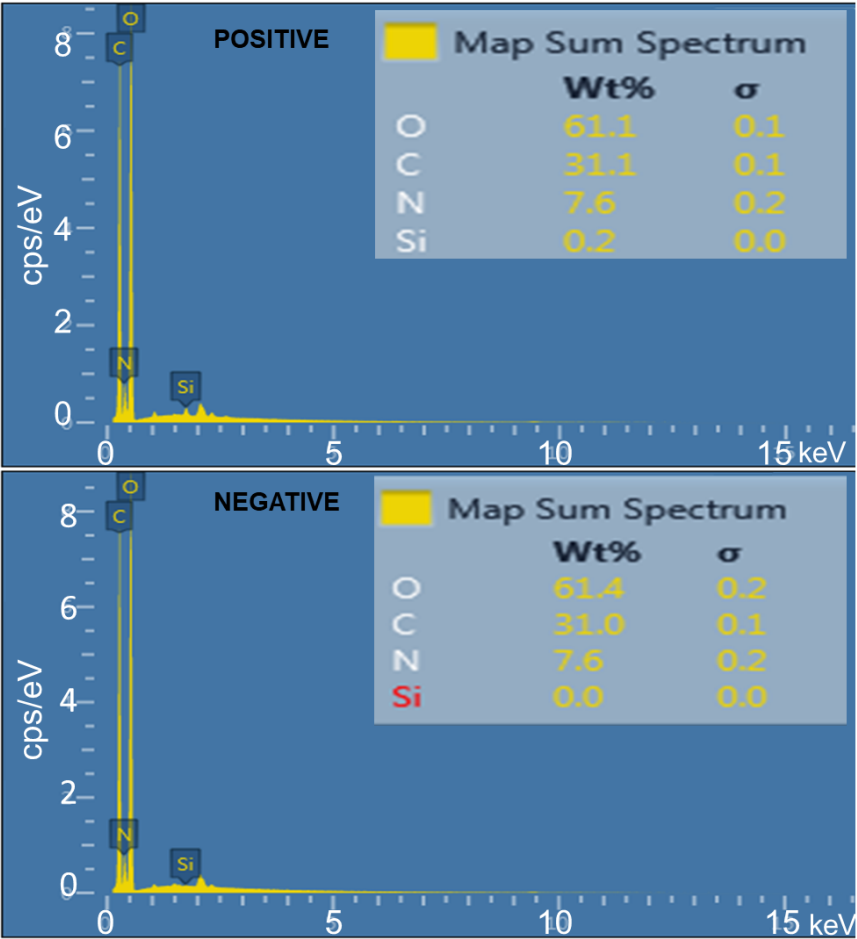


Figure S3

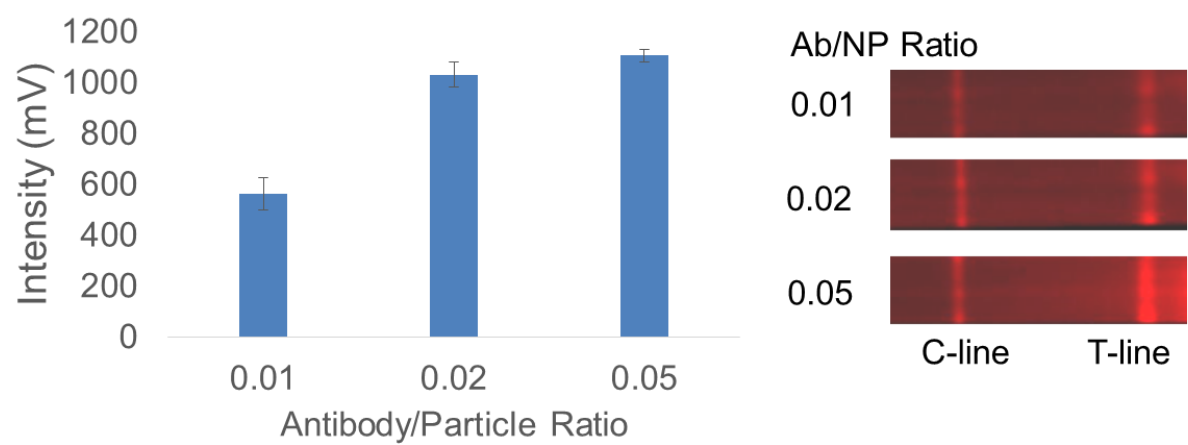


Figure S4

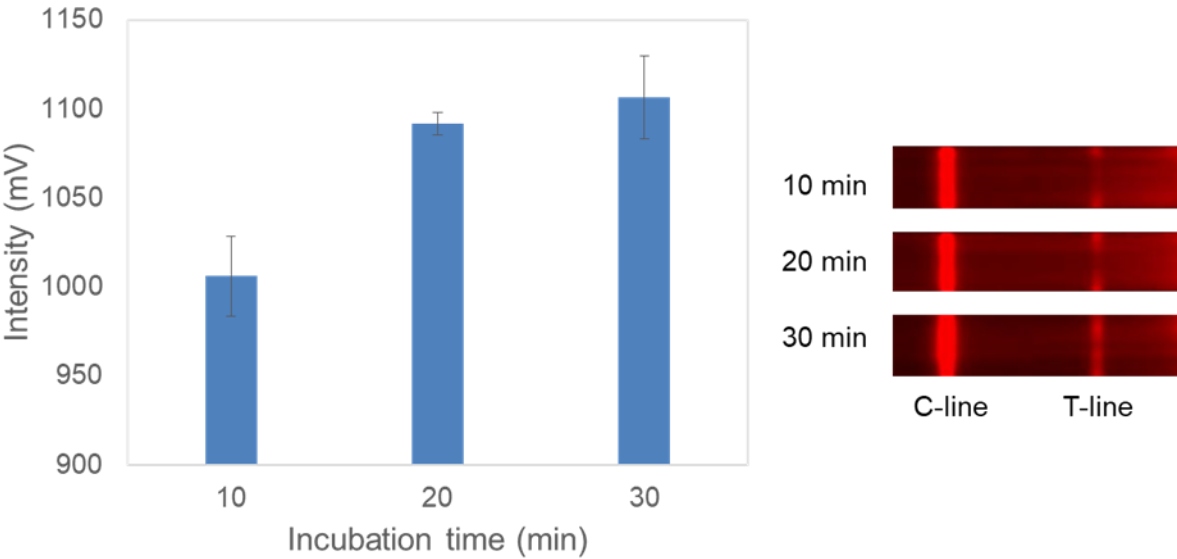
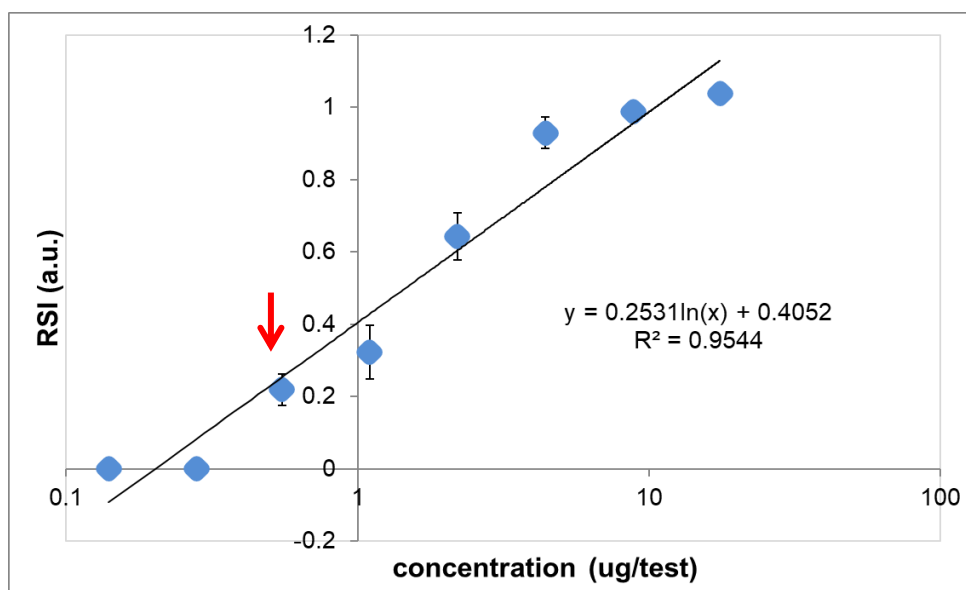


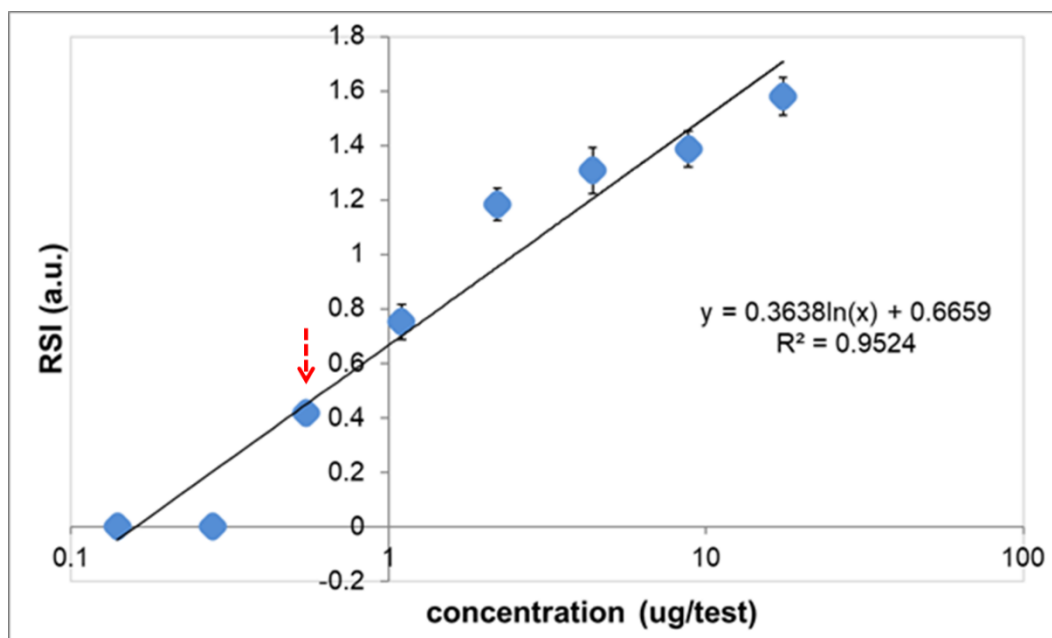
Figure S5



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