

Electronic Supporting Information

Polymer-Modified Gold Nanoparticles via RAFT Polymerization: Detailed Study for a Biosensing Application

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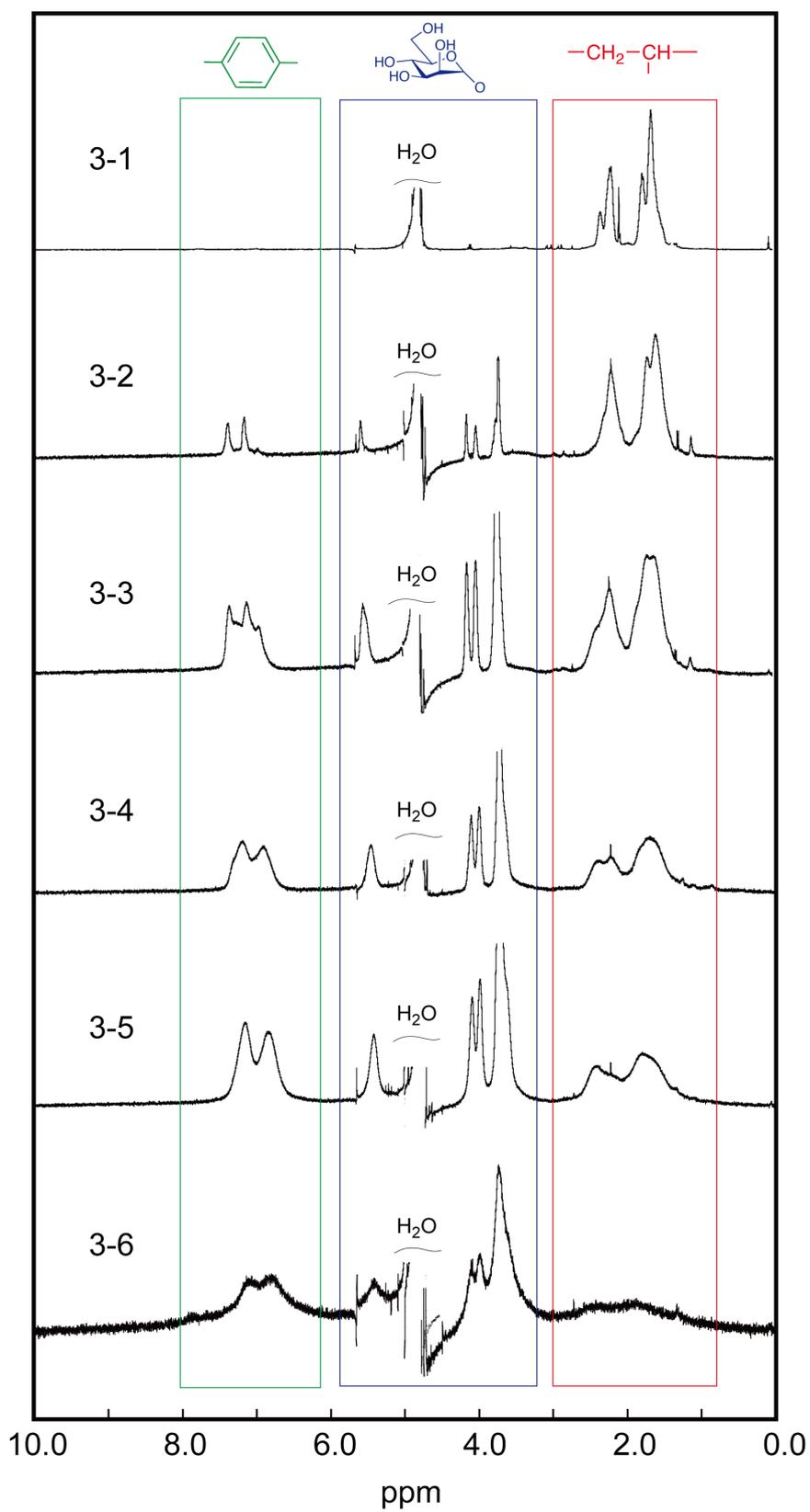


Figure S1. ¹H-NMR spectra of polymers 3-1 – 3-6 in D₂O.

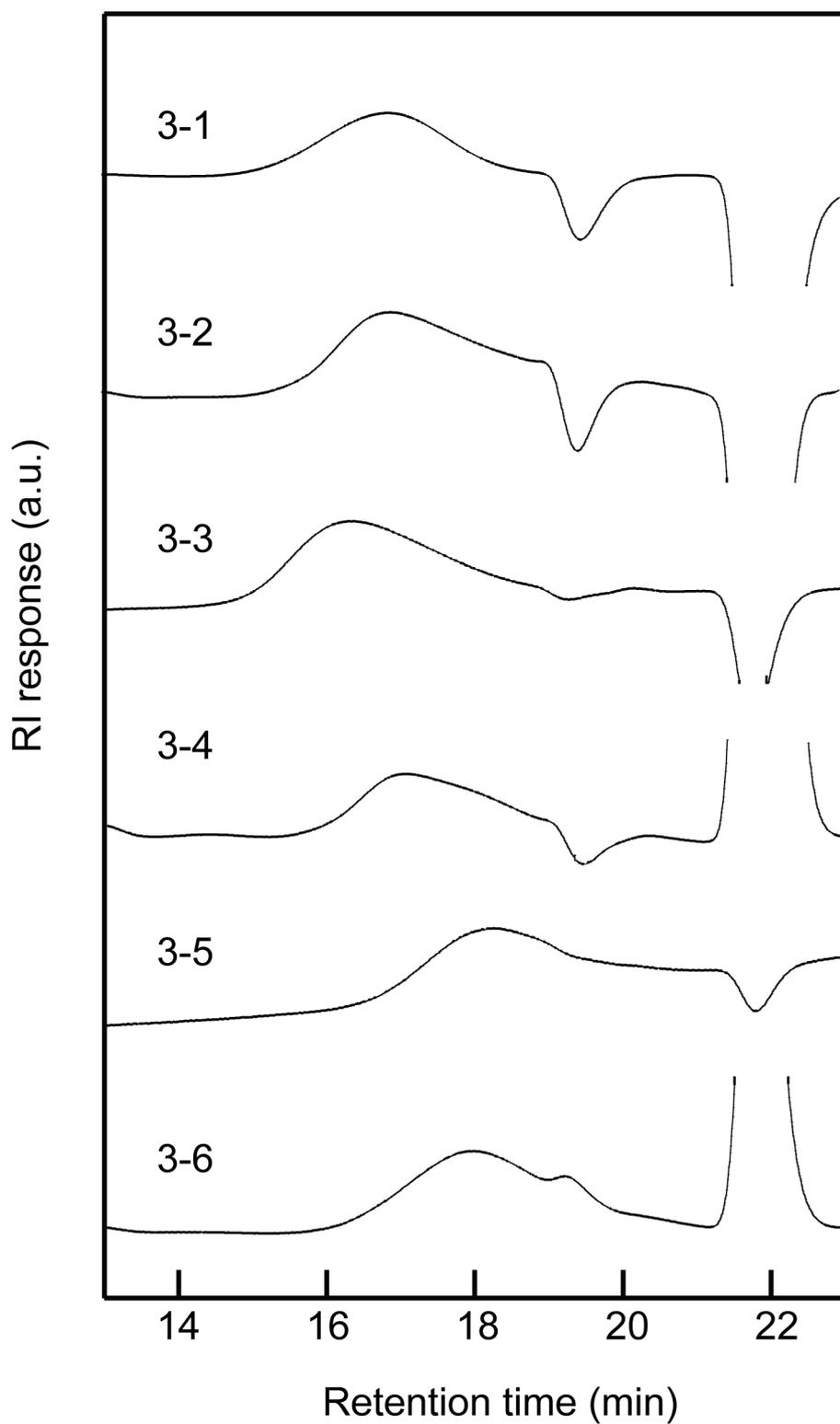
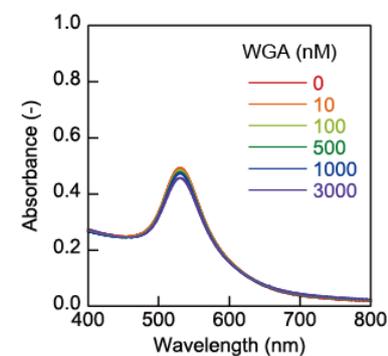
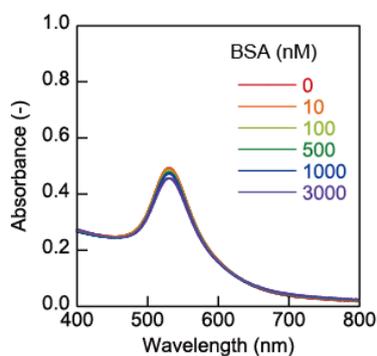
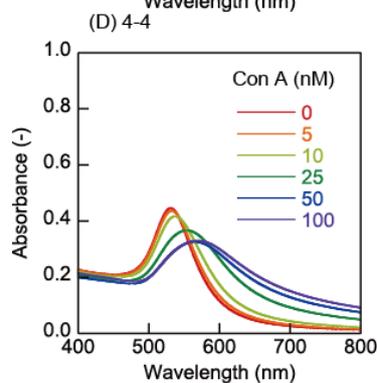
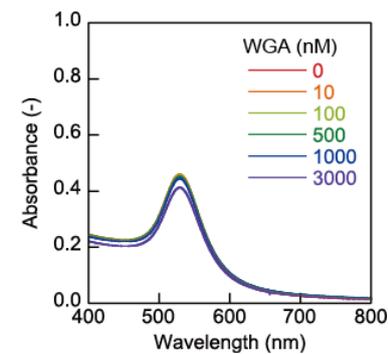
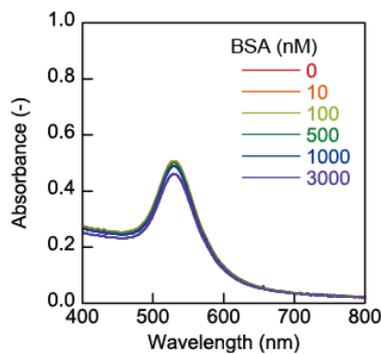
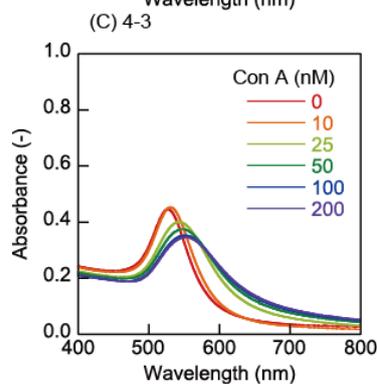
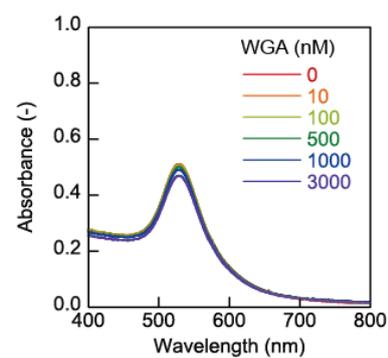
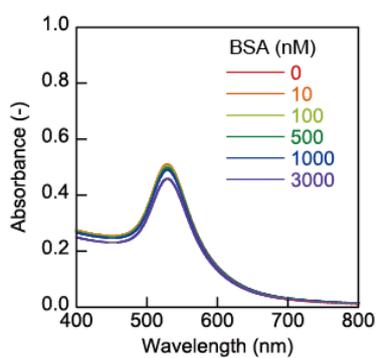
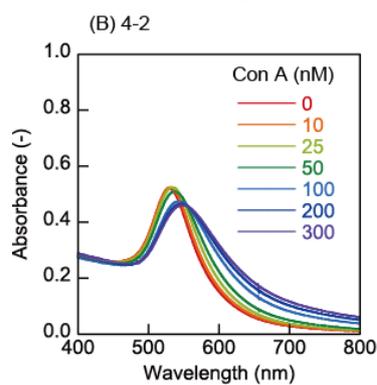
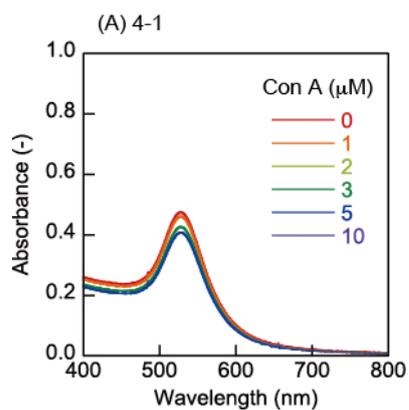
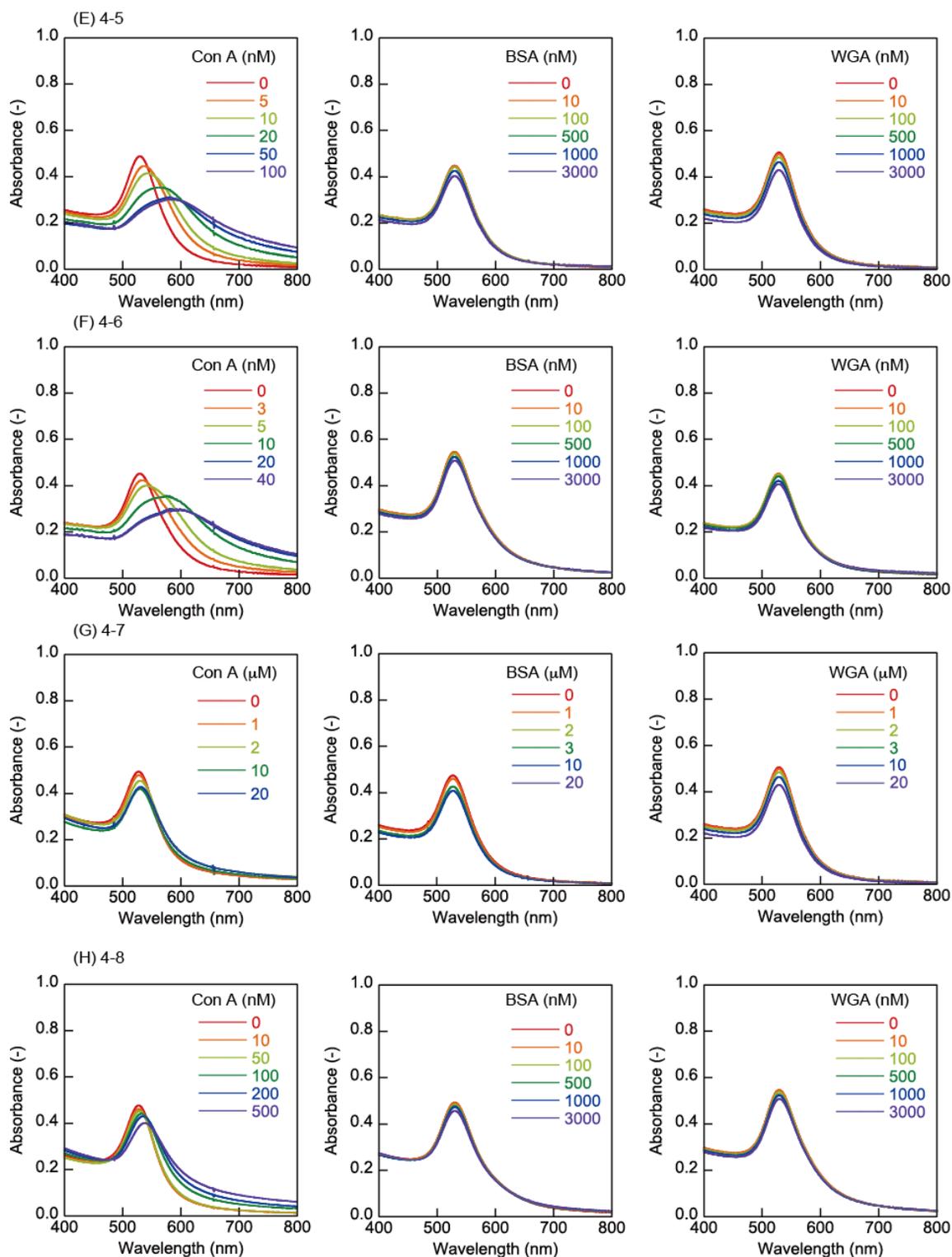


Figure S2. Size exclusion chromatograms of polymer 3-1 – 3-6. There are peaks by eluent or dissolved air around 19 min and 22 min.





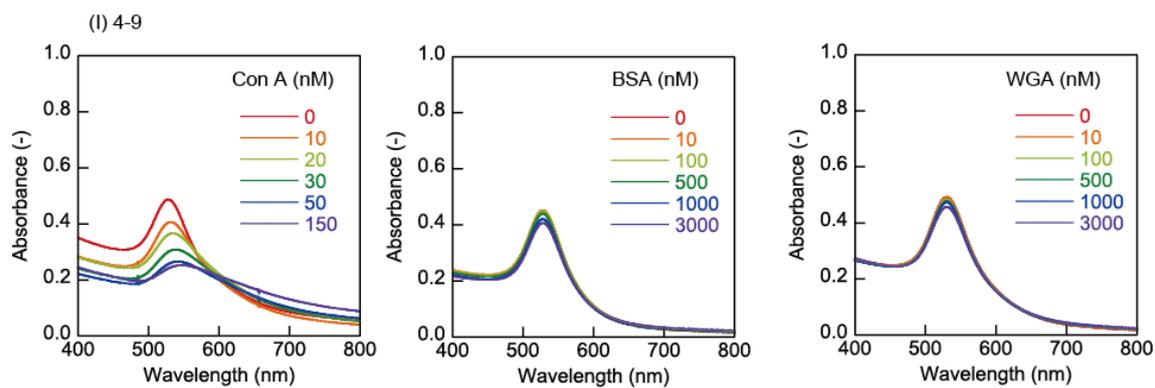


Figure S3. UV-vis spectra of (A) 4-1, (B) 4-2, (C) 4-3, (D) 4-4, (E) 4-5, (F) 4-6, (G) 4-7, (H) 4-8, and (I) 4-9 with the addition of Con A, BSA or WGA in varying concentration.

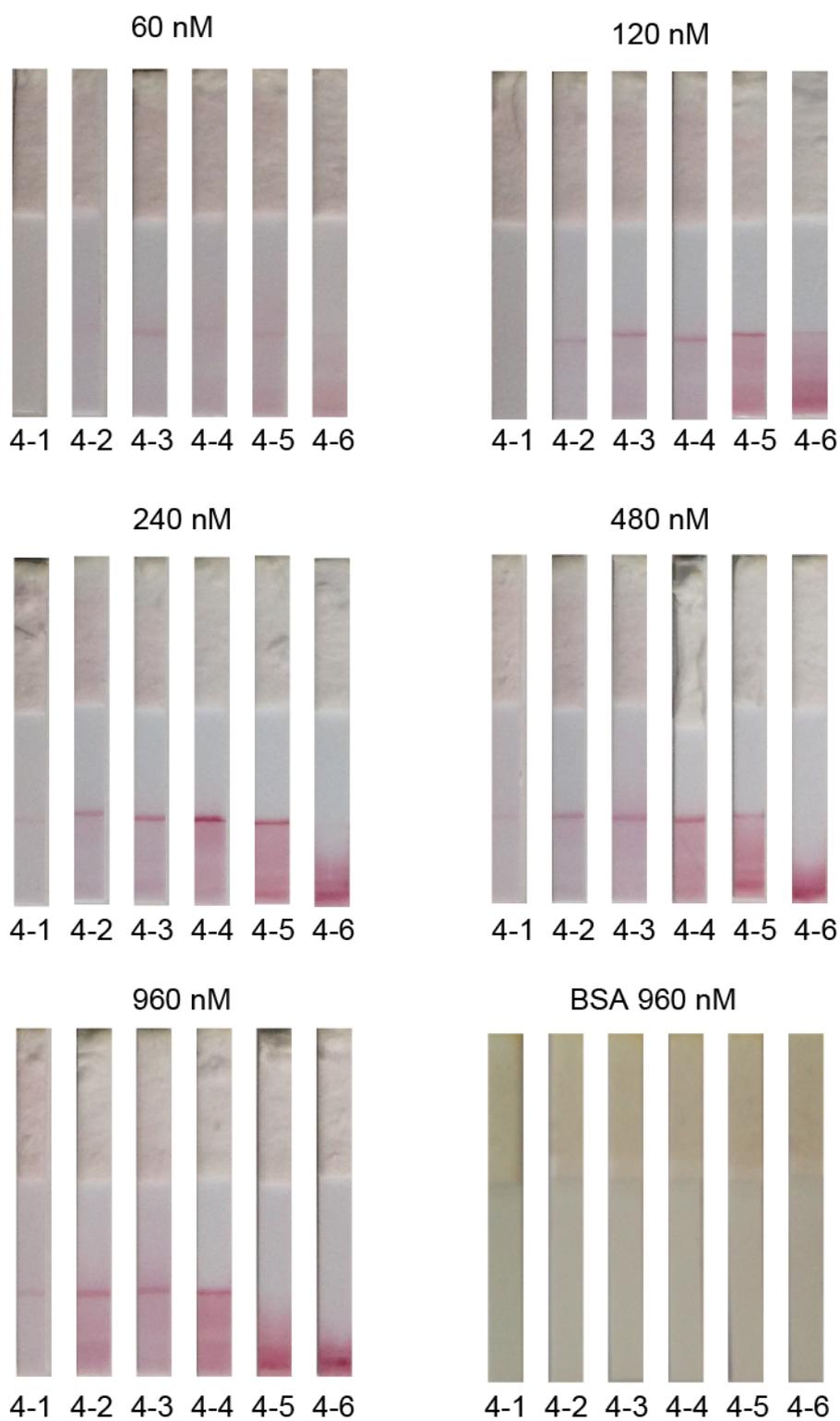


Figure S4. The images of test strips for the immunochromatography assay of AuNPs 4-1 – 4-6 in case of Con A concentration of 60 nM, 120 nM, 240 nM, 480nM, 960 nM and BSA concentration of 960 nM.

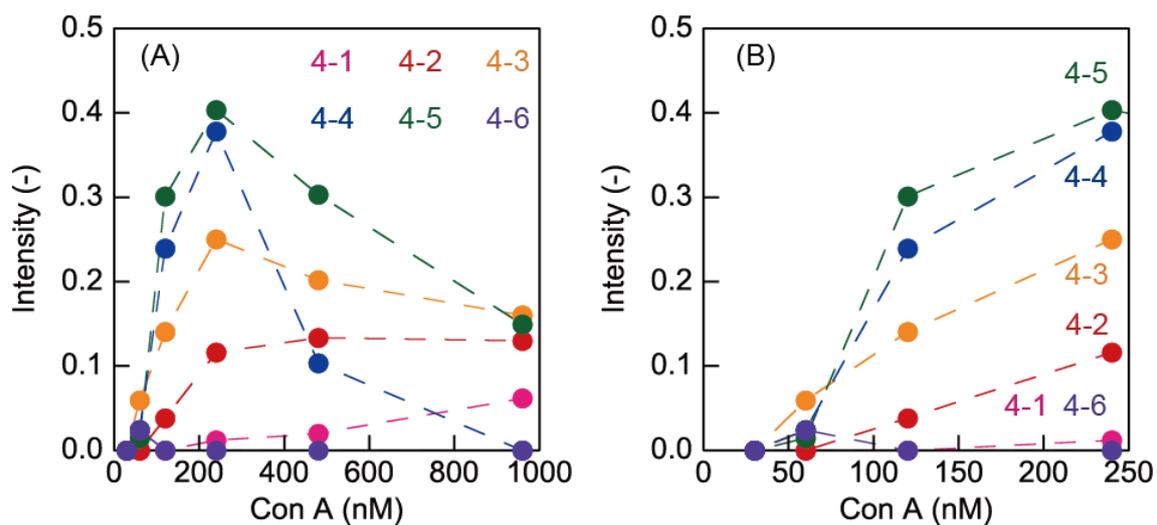


Figure S5. Relationships between the Intensity and the concentration of Con A for the Immunochromatography assay with polymer immobilized AuNPs **4-1** (pink), **4-2** (red), **4-3** (yellow), **4-4** (blue), **4-5** (green) and **4-6** (purple), Con A concentration of (A) 0-1000 nM (B) 0-250 nM.

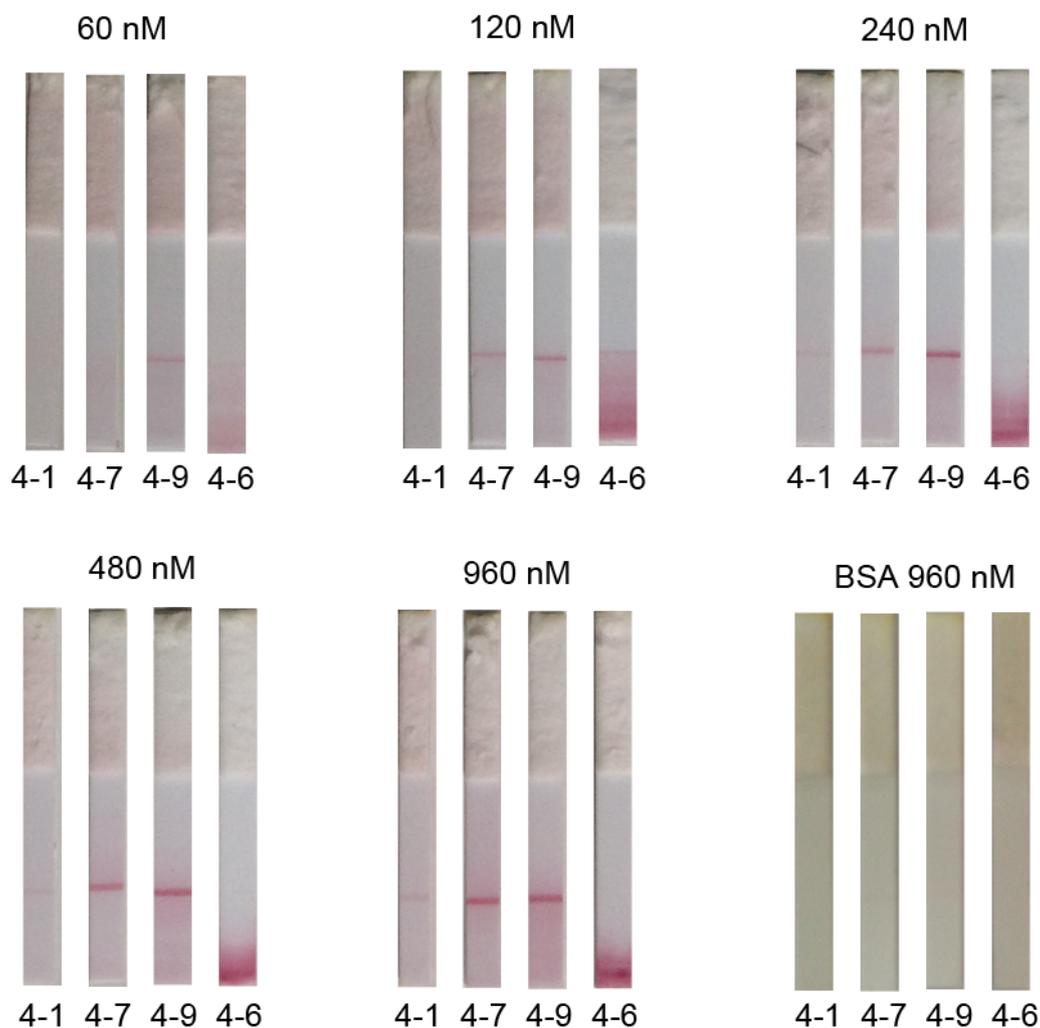


Figure S6. The images of strips for the immunochromatography assay of AuNPs 4-1, 4-6, 4-7 and 4-9 in case of Con A concentration of 60 nM, 120 nM, 240 nM, 480nM, 960 nM and BSA concentration of 960 nM.

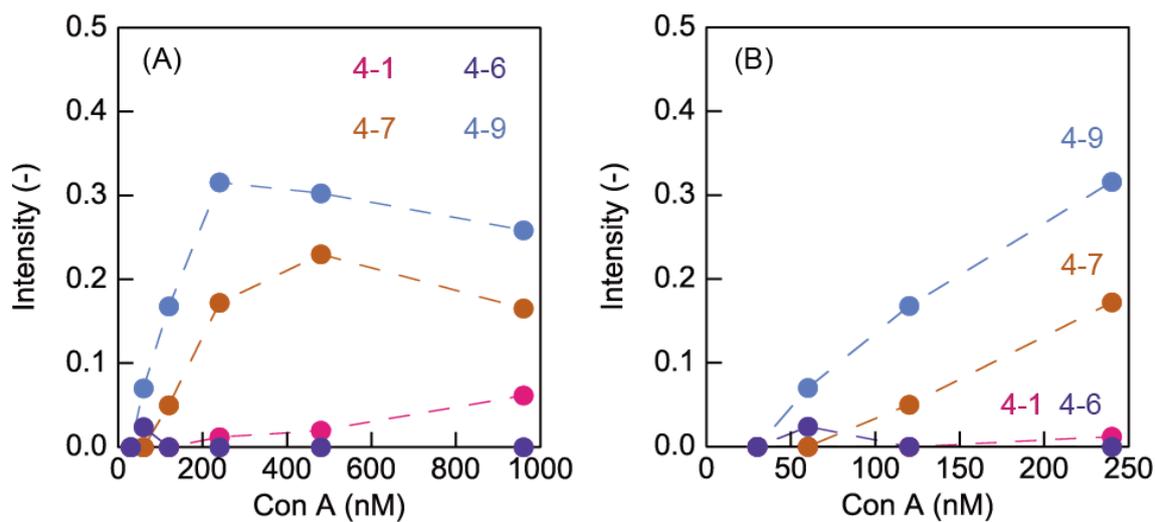


Figure S7. Relationships between the Intensity and the concentration of Con A for the Immunochromatography assay with polymer immobilized AuNPs **4-1** (pink), **4-6** (purple), **4-7** (brown) and **4-9** (sky blue), Con A concentration of (A) 0-1000 nM (B) 0-250 nM.