

## Supplementary Materials

### Simultaneous Detection of Inflammatory Biomarkers by SERS Nanotag- Based Lateral Flow Assay with Portable Cloud Raman Spectrometer

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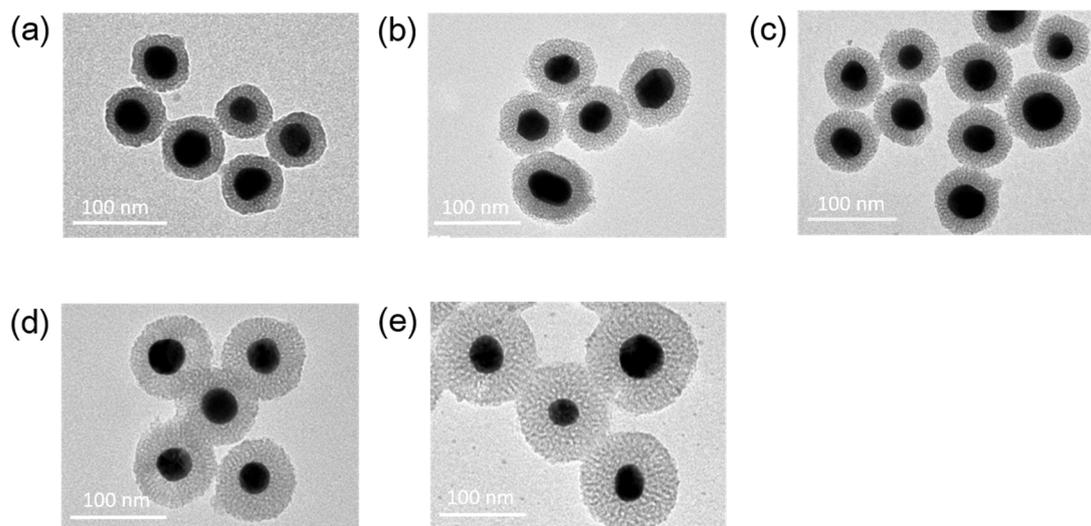
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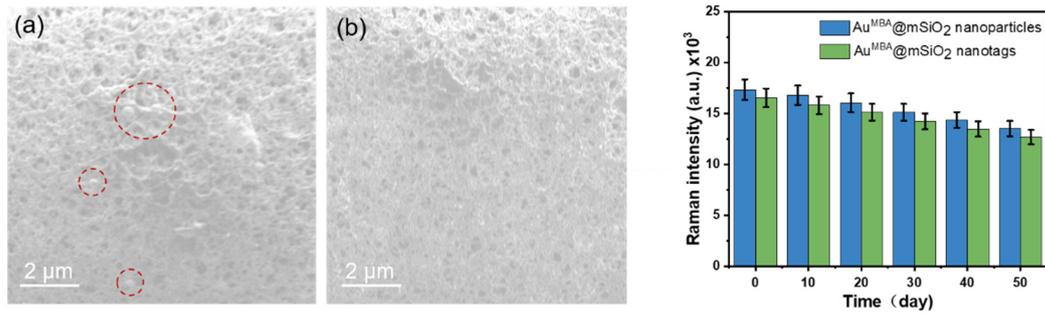
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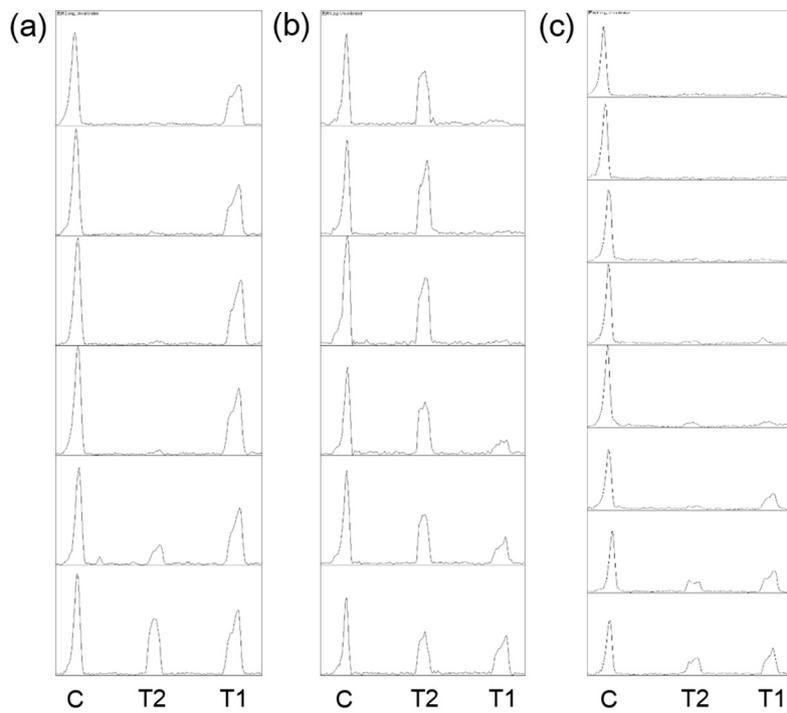
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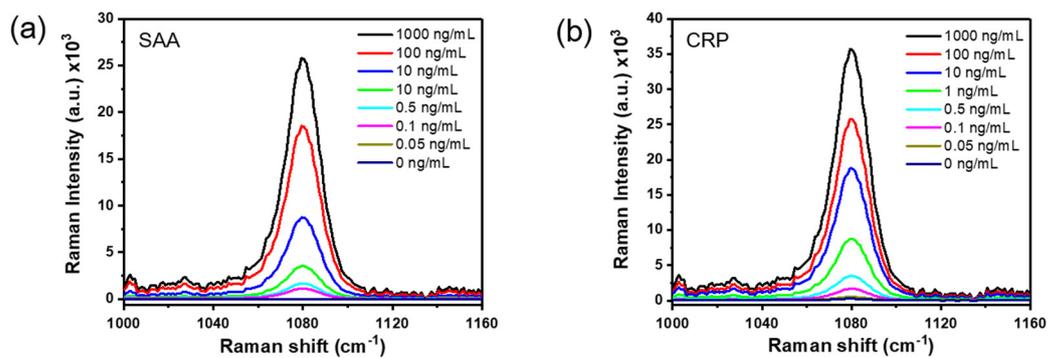
**Figure S1:** TEM images of Au<sup>MBA</sup>@mSiO<sub>2</sub> NPs with different TEOS usage (μL): (a) 140; (b) 160; (c) 180; (d) 200; (e) 400.



**Figure S2:** SEM images of LFA trips in Figure 4: (a) 1000 ng/mL, (b) 0 ng/mL. (c) The relationship between the total Raman intensities of ten Au<sup>MBA</sup>@mSiO<sub>2</sub> nanoparticles and nanotags at 1079 cm<sup>-1</sup> and the storage time of the nanoparticles.



**Figure S3:** (a), (b), (c) are the brightness curves of two test lines and one control line corresponding to the LFA strips in Figure 3 (a), (d) and Figure 4 (a), respectively. The area of the peak in the brightness curve is the brightness value.



**Figure S4:** (a,b) Averaged Raman spectra of two test lines for different concentrations of SAA and CRP corresponding to the SERS-LFA strips in Figure 4 (a) measured by a confocal Raman spectrometer.