

Colorimetric detection of lipopolysaccharides based on lipopolysaccharides-binding peptide and AuNPs

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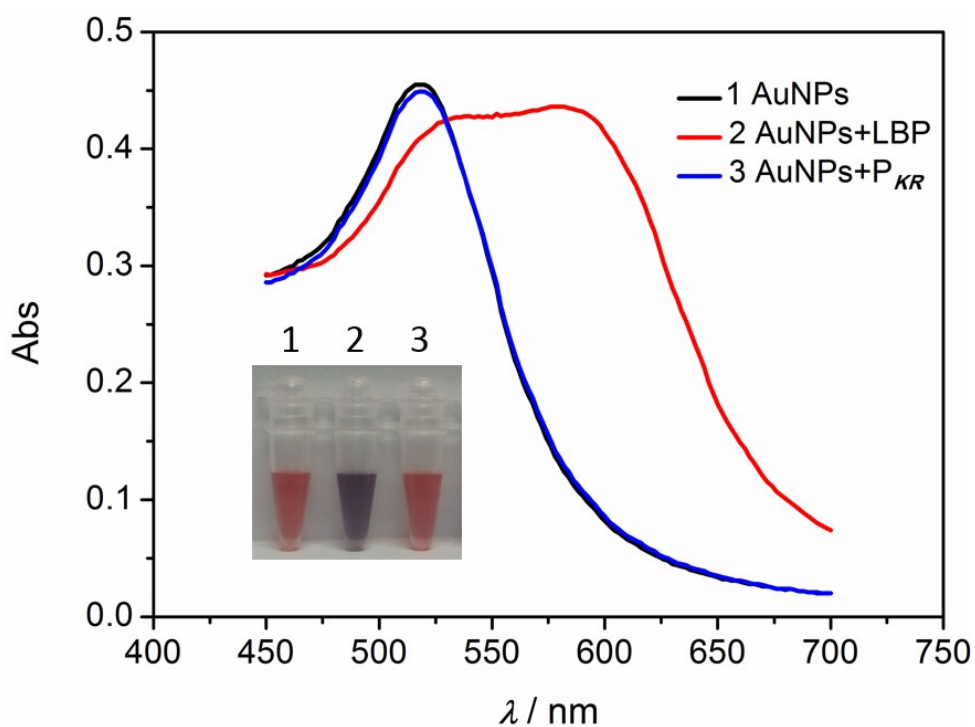


Figure S1. Absorption spectra and color changes of AuNPs in (1) assay buffer, (2) LBP solution and (3) P_{KR} solution and, respectively. The concentrations of the peptide probes are 1.0 μM .

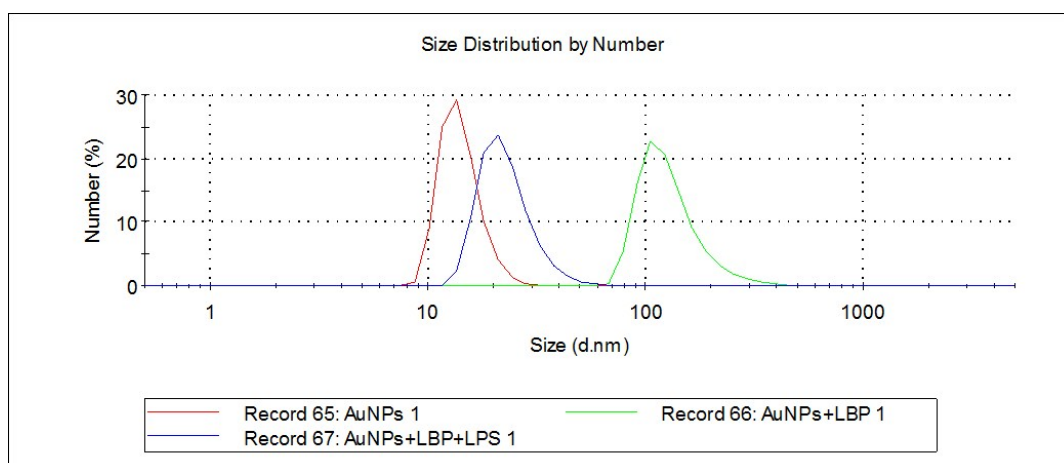


Figure S2. Characterization of the peptide and AuNPs assembly by dynamic light scattering (DLS). Red: AuNPs; green: AuNPs treated with LBP; blue: AuNPs treated with LBP and LPS.

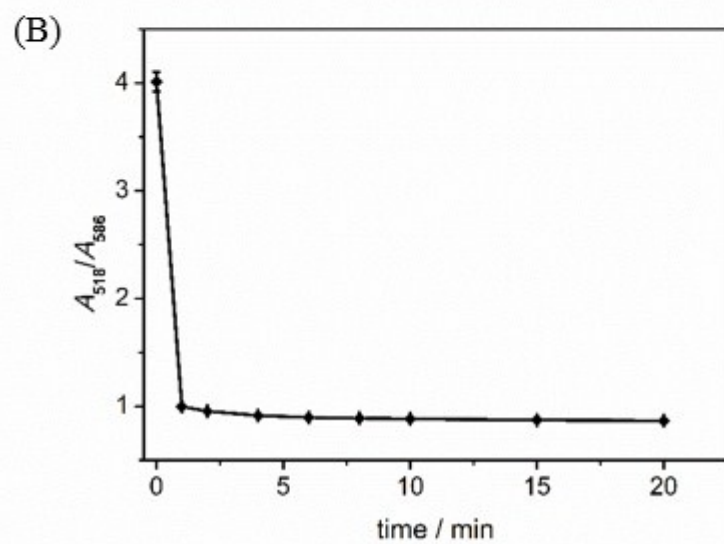
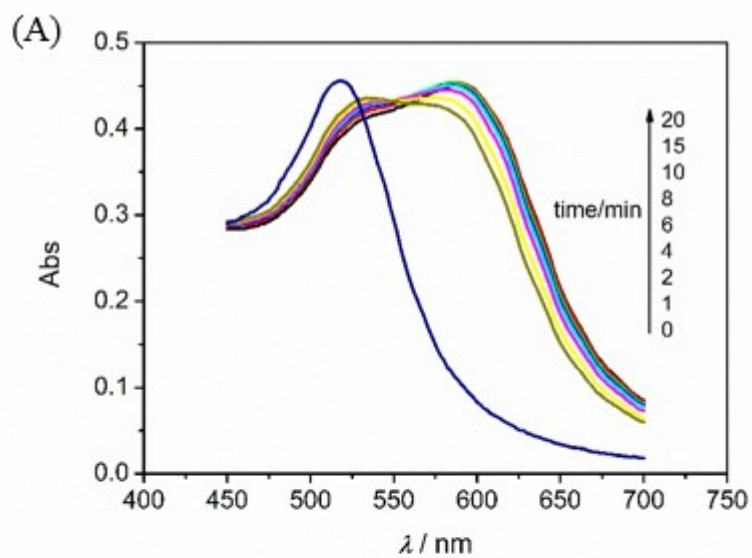


Figure S3. The absorption spectra of AuNPs (A) and the values of A_{518}/A_{586} (B) at different times after the addition of 1.0 μM LBP.

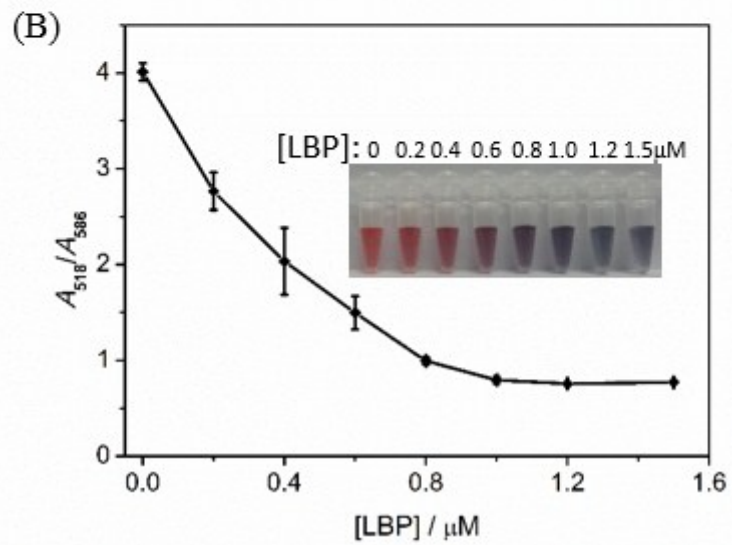
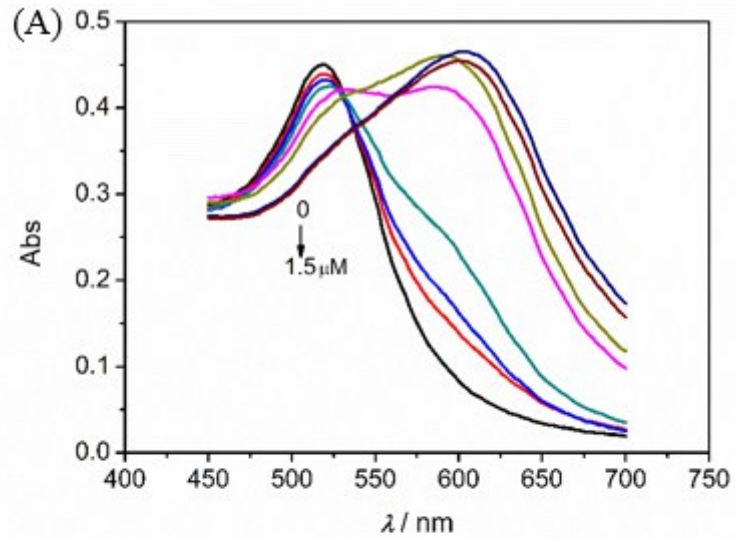


Figure S4. The absorption spectra of AuNPs (A) and the values of A_{518}/A_{586} (B) with different concentrations of LBP. Inset is the color changes of AuNPs solution with the concentration of LBP increasing.

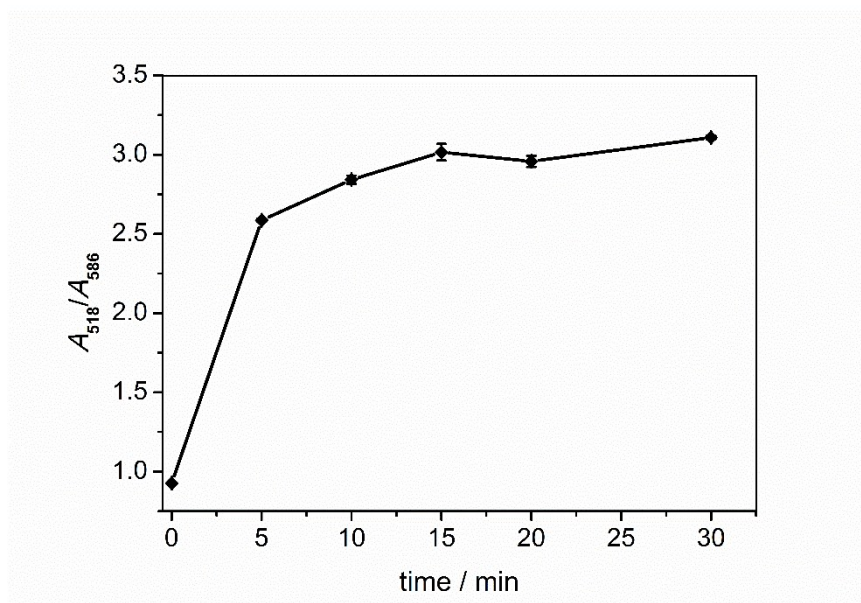


Figure S5. Effects of incubation time between LBP and LPS on the colorimetric responses. The concentrations of LBP and LPS are 1.0 μM and 1.5 μM , respectively.

Table S1 Comparison of various methods for LPS detection.

Probe	Method	LOD (nM)	Reference
Pyrene derivative	Fluorometric	100	13
Dye labeled peptide	Fluorometric	150	23
Peptide-perylene	Fluorometric	28	24
Peptide/AuNPs	Colorimetric	2	This work