D-alanyl-D-alanine-Modified Gold Nanoparticles Form a Broad-Spectrum Sensor for Bacteria

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This SI includes the following contents:

24 h.

Figure S7. Stability of Au_DADA in various pH values.

Figure S8. Absorption spectra of Au_DADA incubated with ascetic fluid and various positive ions.

Figure S9. TEM image of Au_DADA stored for 15 months at 4 ^{o}C and for 2 months at 37 ^{o}C.

Table S1. Zeta potential of AuNPs.

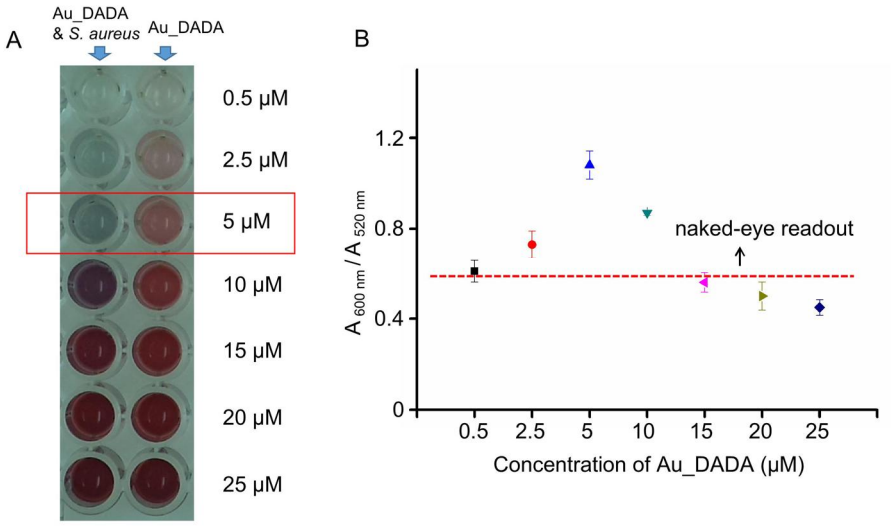

Figure S1. Colorimetric response of various concentrations of Au_DADA incubated with *S. aureus*.(A) Photographs of Au_DADA solution. (B) $A_{600\ nm}/A_{520\ nm}$ value of Au_DADA.

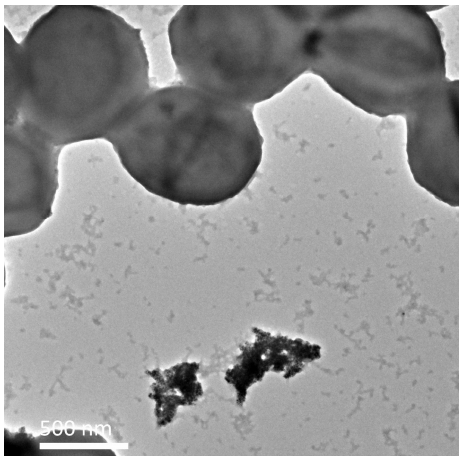

Figure S2. TEM images of *S. aureus* and Au_DADA.

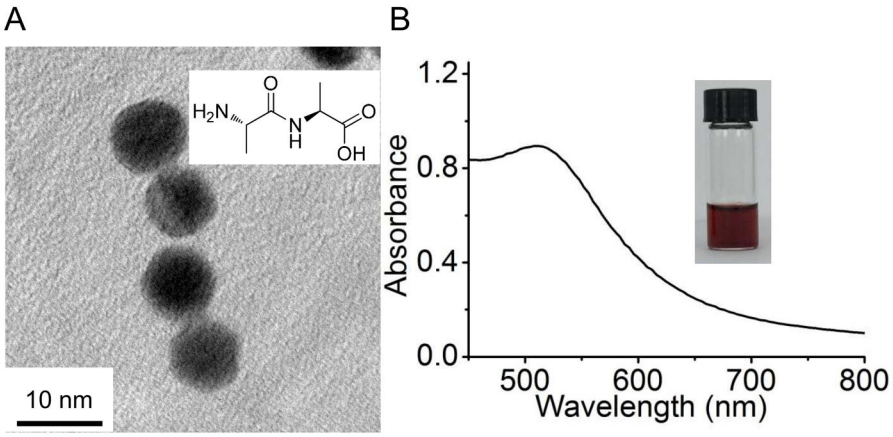

Figure S3. Characterization of Au_LALA. (A) TEM image of Au_LALA. Inserted structure is LALA. (B) UV-via spectrum of Au_LALA. Inserted photo is Au_LALA.

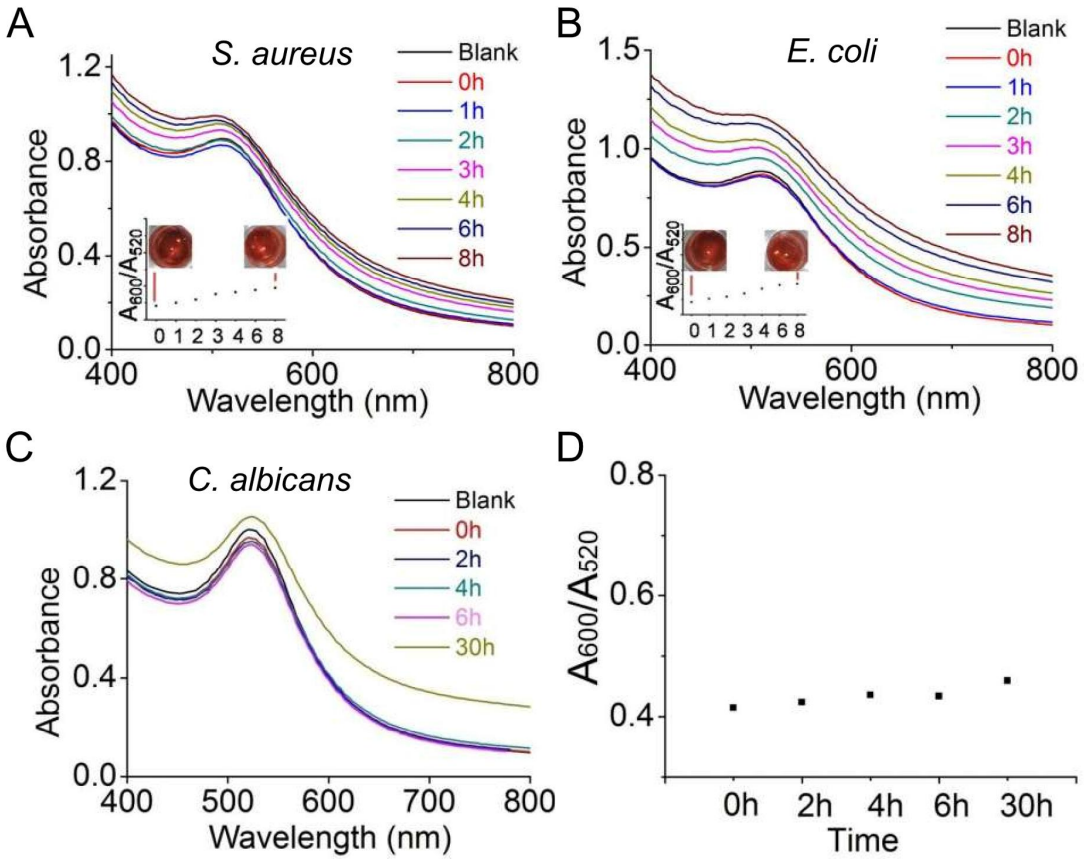

Figure S4. Colorimetric response of Au_LALA or Au_DADA. (A) Au_LALA incubated with *S. aureus*. (B) Au_LALA incubated with *E. coli*. Inserts are the corresponding plots of $A_{600\ nm}/A_{520\ nm}$ of Au_LALA versus different incubated time and the photographs of Au_LALA incubated with bacteria. (C) UV-vis spectra of Au_DADA mixed with *C. albicans*. (D) The plot of $A_{600\ nm}/A_{520\ nm}$ of Au_DADA versus different incubated time. With the growth of bacteria or fungus, the lines of spectra are moved higher vertically compared with control group.

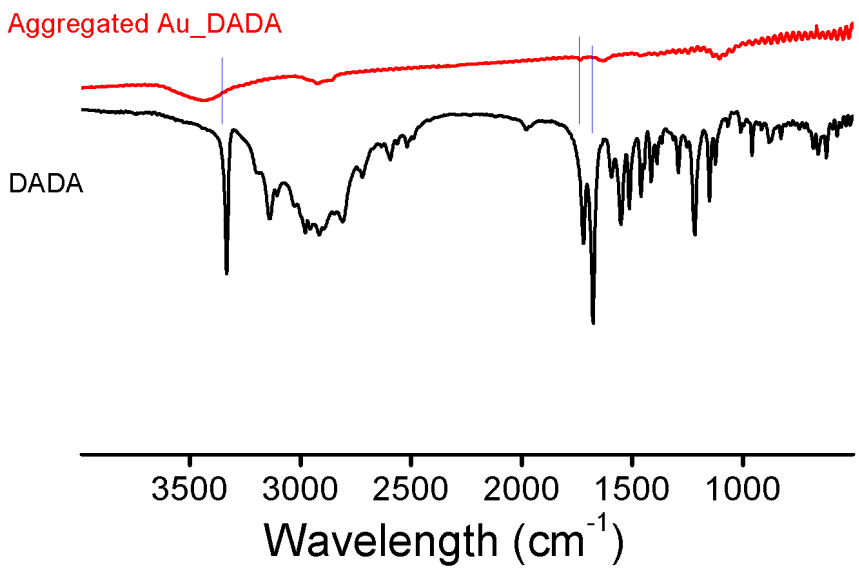

Figure S5. FT-IR of aggregated Au_DADA that incubating with bacteria and DADA.

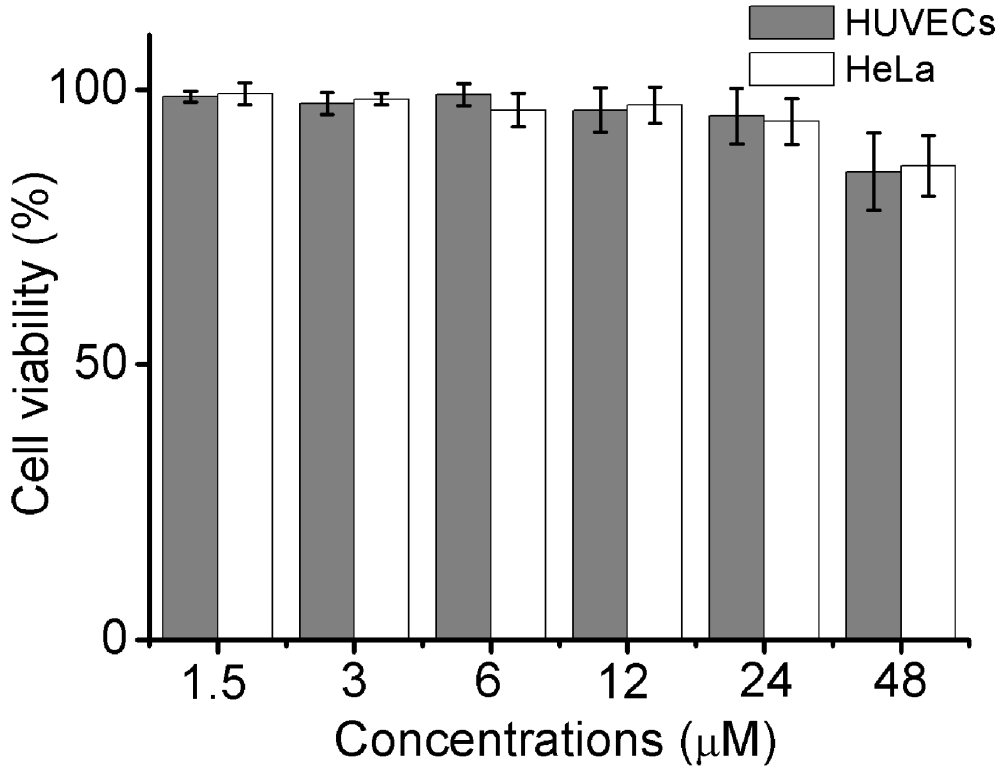

Figure S6. Cytotoxicity of Au_DADA incubated with HUVECs and HeLa cells for 24 h.

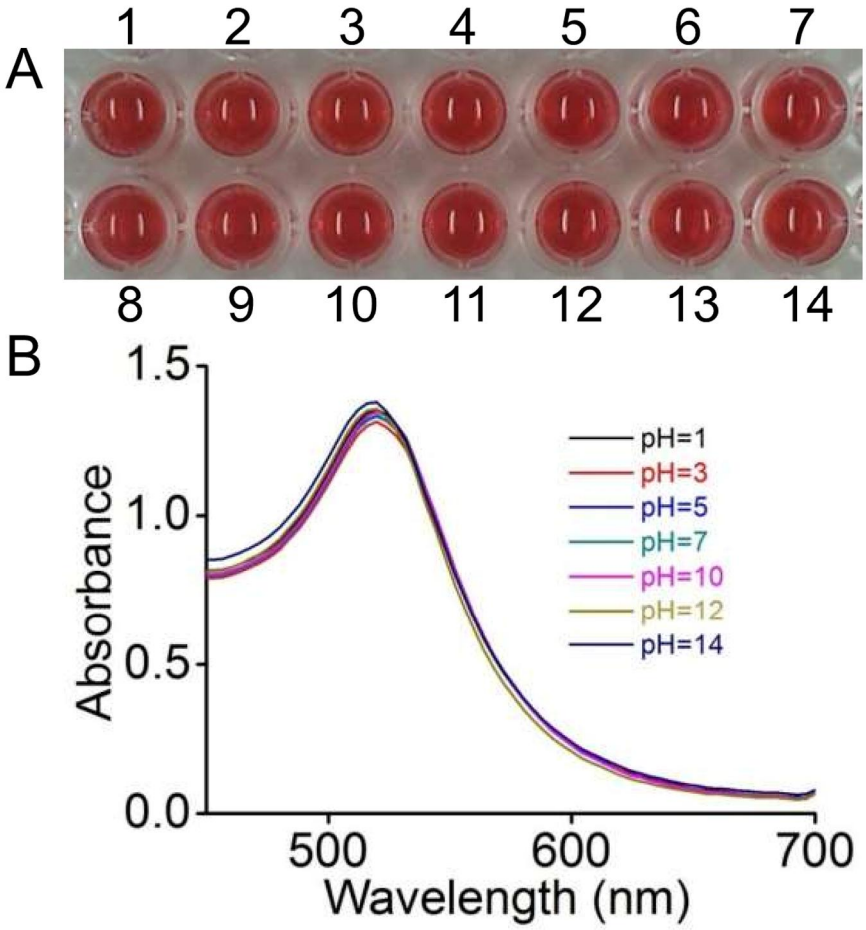

Figure S7. Stability of Au_DADA in various pH values. (A) Photos of Au_DADA in different pH solutions. (B) Absorption spectra of Au_DADA incubated in aqueous solutions at various pH values.

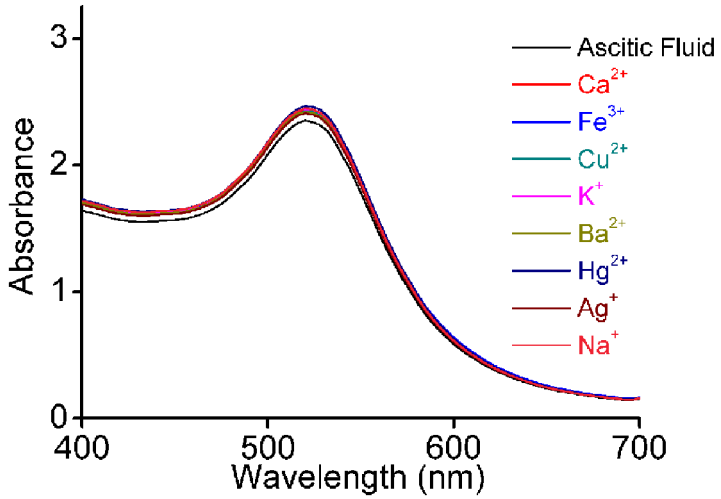

Figure S8. Absorption spectra of Au_DADA incubated with ascetic fluid and various positive ions.

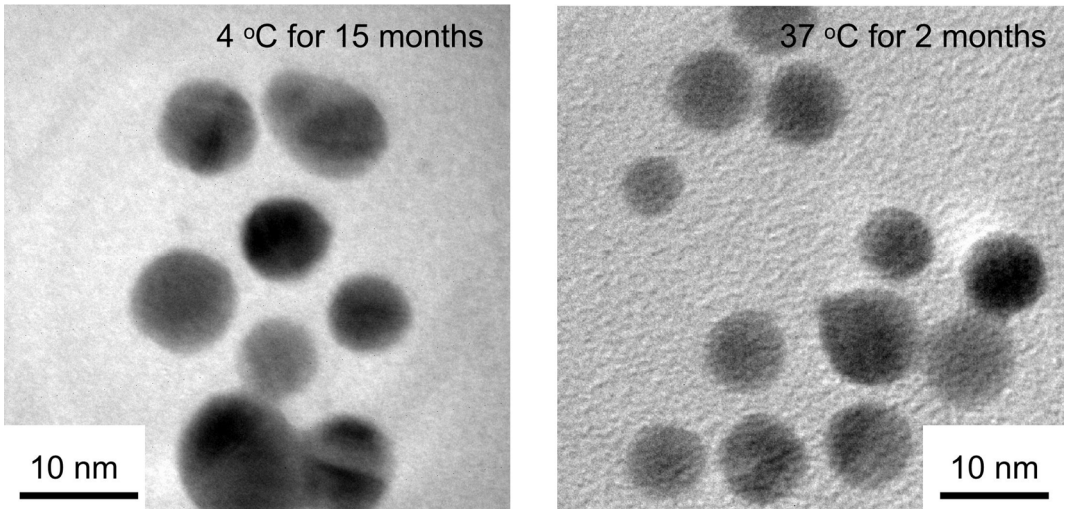

Figure S9. TEM image of Au_DADA stored for 15 months at 4 °C and for 2 months at 37 °C.

Table S1. Zeta potential of AuNPs.

	Au_DADA	Au_LALA
Zeta potential (mV)	–21.9 ± 1.3 mV	–18.8 ± 0.9 mV