

## **Supplementary information**

### **Physicochemical, electrochemical, and biological characterization of field assisted gold nanocluster-coated barium titanate nanoparticles for biomedical applications**

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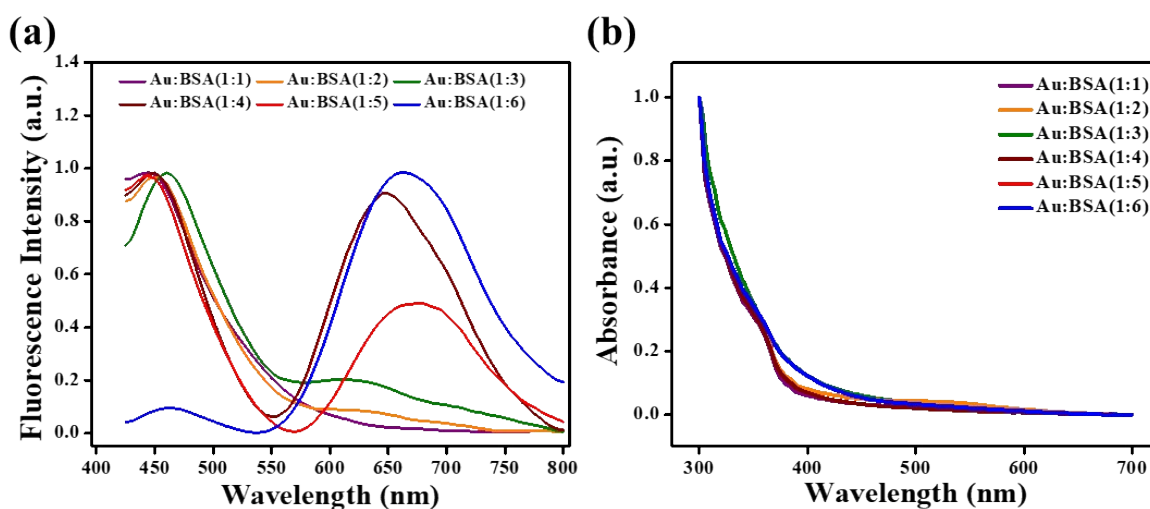
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## 2.1 Synthesis of Gold nanoclusters (AuNCs)

To verify the effect of the weight ratio of Au and BSA, six different ratio of Au: BSA (1:1, 1:2, 1:3, 1:4, 1:5, 1:6) were investigated. After the synthesis process, the fluorescence and absorption spectra for each ratio was recorded. Based on the highest fluorescent intensity and minimal absorption, Au: BSA ratio of 1:6 (wt./wt.) was selected.



**Figure S1.** (a) Fluorescence intensity of the different ratios of gold (Au) and bovine serum albumin (BSA), (b) Absorption spectra of the different ratios of gold (Au) and bovine serum albumin (BSA).

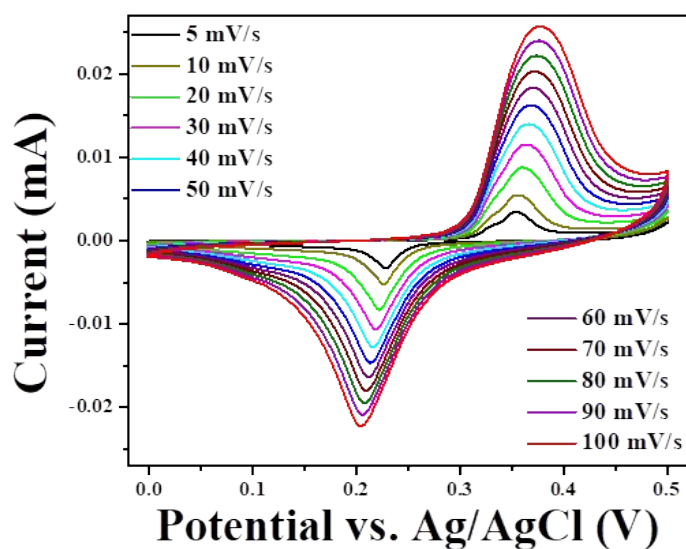


Figure S2. CV curves at different scan rates for 0.6G ABT.

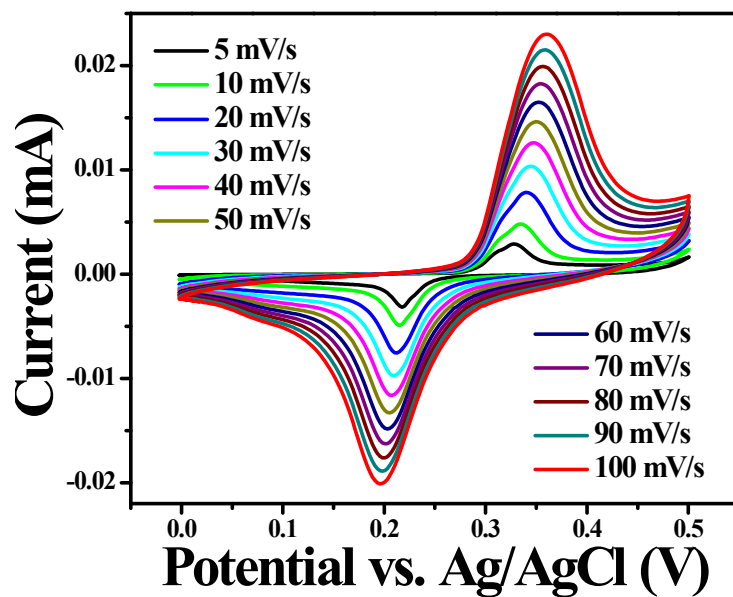


Figure S3. CV curves at different scan rates for ABT.

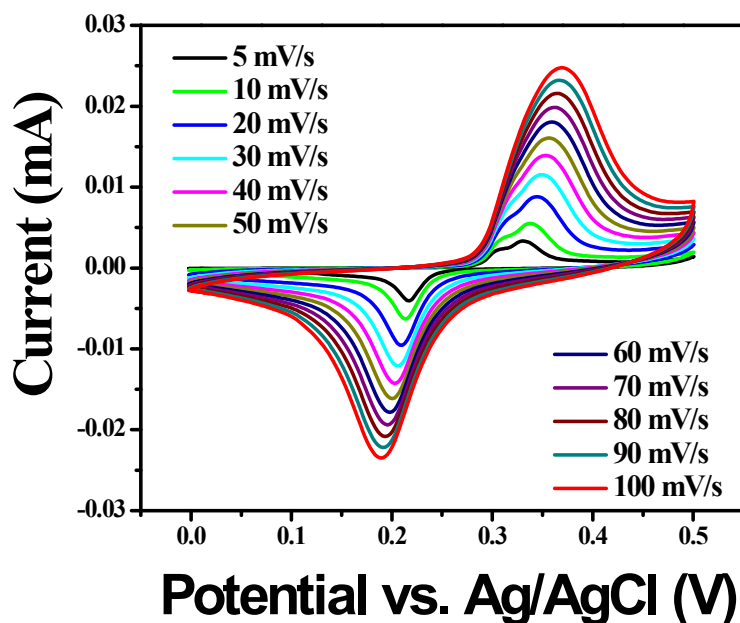


Figure S4. CV curves at different scan rates for 2.0 ABT.