Supporting Information

Colorimetric sensing of Chromium(Ⅵ) ions in aqueous solution based on the leaching of protein-stabled gold nanoparticles

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Figure captions

Fig. S1 Effect of the pH on the stability of Au NPs and BSA-Au NPs

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Fig. S5 Effect of concentrations of HBr on the SPR absorption changes of BSA-Au NPs (conditions: 20 μM of Cr (VI) ions, pH=1, 6 min at 75℃).

Fig. S6 The stability of BSA-Au NPs incubated at different temperature

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Fig. S8 The reaction rate with Cr (VI) of BSA-Au NPs at different temperature

Fig. S9 Effect of time on the SPR absorption changes of BSA-Au NPs (Conditions: 50 μM of Cr (VI) ions, 0.8 M of HBr,75℃).

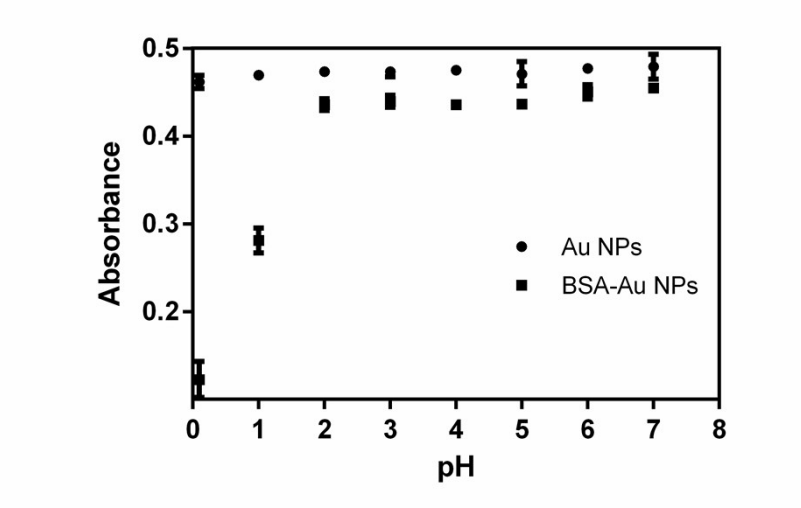

Fig. S1 Effect of the pH on the stability of Au NPs and BSA-Au NPs

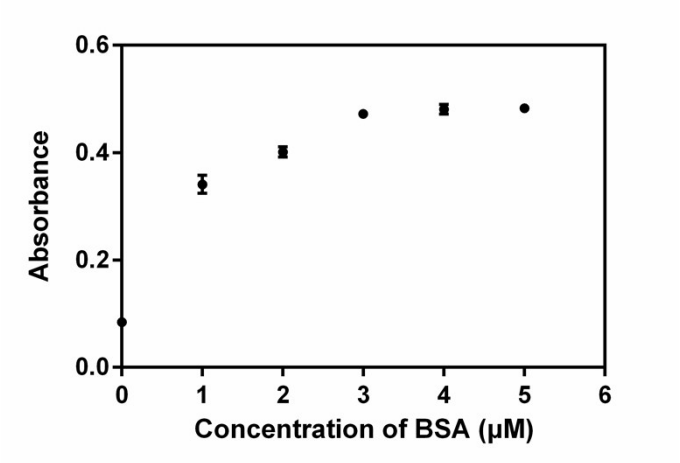

Fig. S2 Effect of the concentration of BSA on the stability of Au NPs solution (pH=1)

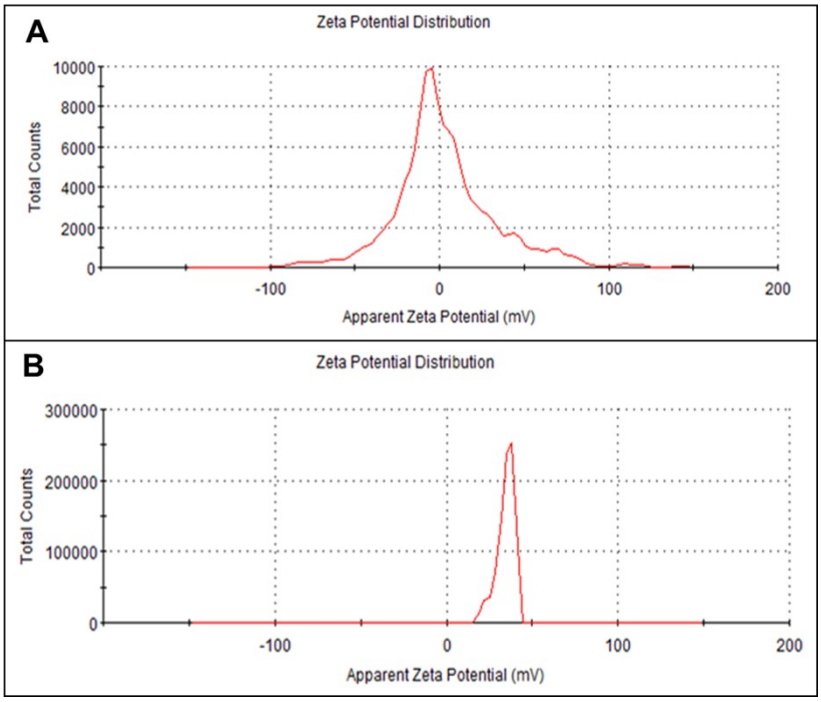

Fig. S3 Zeta potential of Au NPs(A) and BSA-Au NPs(B) solution (pH=1)

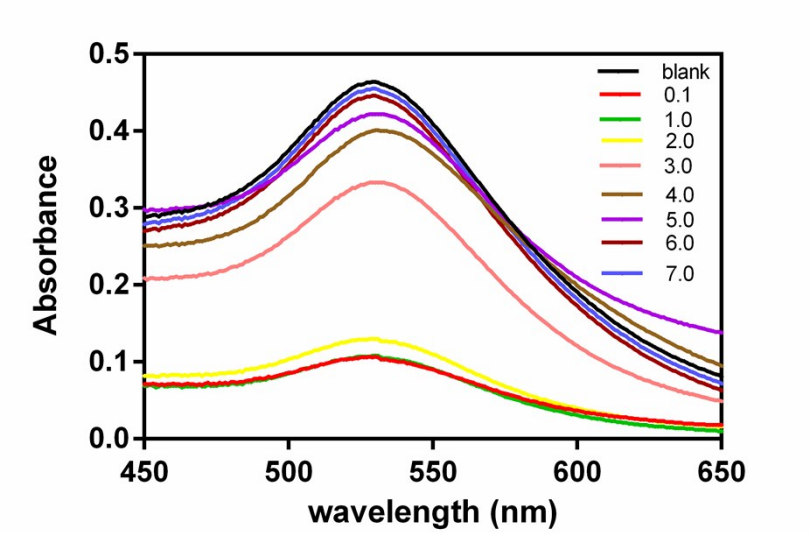

Fig. S4 Effect of pH on the SPR absorption changes of Au NPs (conditions: 40 μM of Cr (VI) ions, 0.8 M of HBr, 6 min).

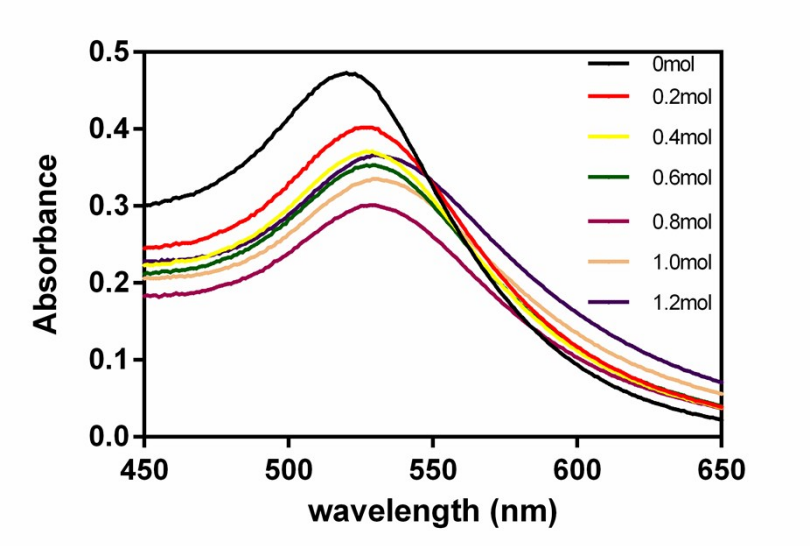

Fig. S5 Effect of concentrations of HBr on the SPR absorption changes of BSA-Au NPs (conditions: 20 μM of Cr (VI) ions, pH=1, 6 min at 75℃).

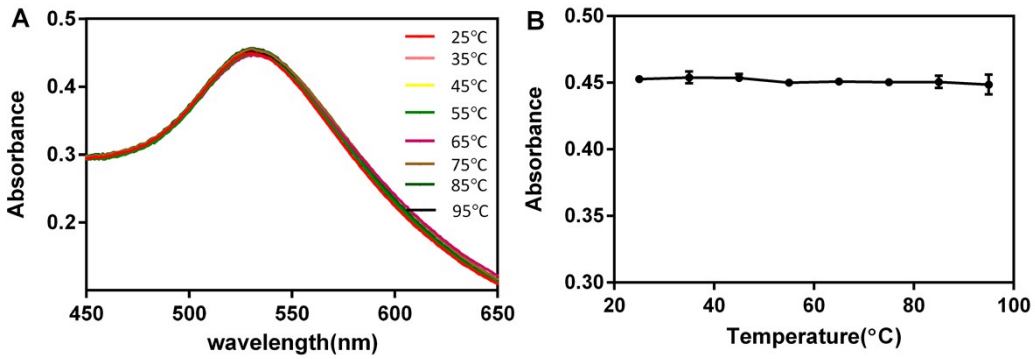

Fig. S6 The stability of BSA-Au NPs incubated at different temperature

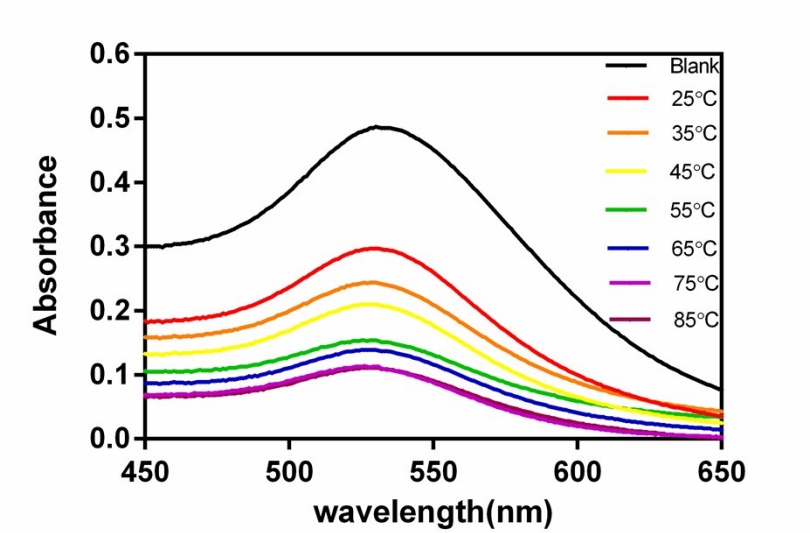

Fig. S7 Effect of temperature on the SPR absorption changes of BSA-Au NPs (Conditions: 50 μM of Cr (VI) ions, 0.8 M of HBr, 6 min).

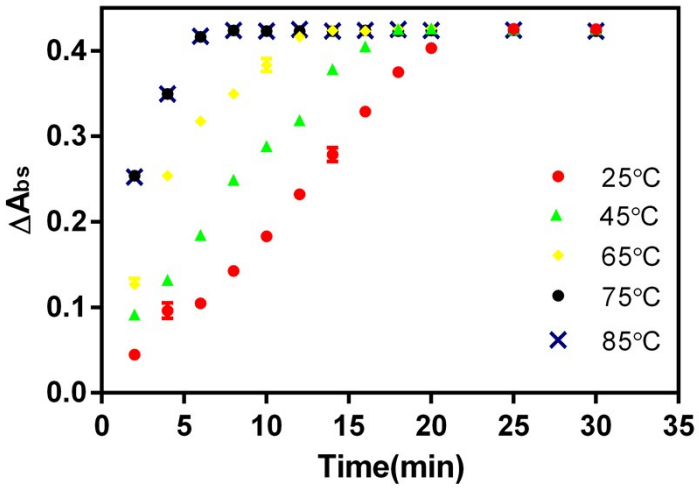

Fig. S8 The reaction rate with Cr (VI) of BSA-Au NPs at different temperature

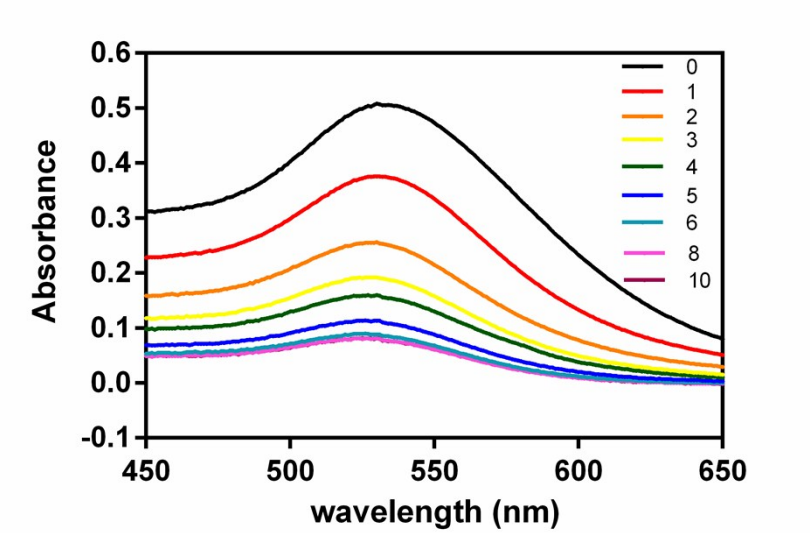

Fig. S9 Effect of time on the SPR absorption changes of BSA-Au NPs (Conditions: 50 μM of Cr (VI) ions, 0.8 M of HBr,75℃).