Supplementary Materials: A Colorimetric Sensor for the Highly Selective Detection of Sulfide and 1,4-Dithiothreitol Based on the *In Situ* Formation of Silver Nanoparticles Using Dopamine

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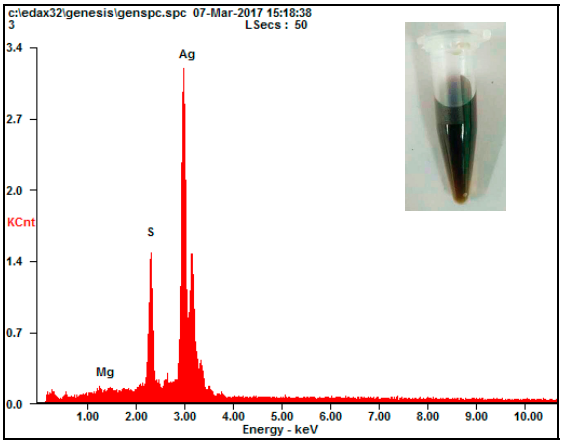

Element	*Wt %*	*At %*
MgK	00.92	03.11
S K	11.81	30.30
AgL	87.27	66.58

Figure S1. Energy dispersive X-ray spectroscope (EDS) spectrum and photo of the mixture of 5 mM $AgNO_3$ and 5 mM Na_2S.

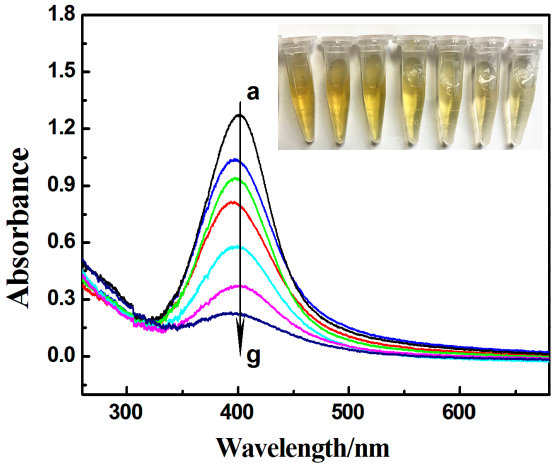

Figure S2. UV-Vis absorption responses of AgNPs in the absence (curve a) and presence of different concentrations of GSH (from curve a to g: 0, 10, 15, 20, 30, 50, 100 μM). The color changes of AgNPs before (the first tube) and after the reaction with different concentrations of GSH (from curve a to h: 0, 10, 15, 20, 30, 50,100 μM) for 24 h later.

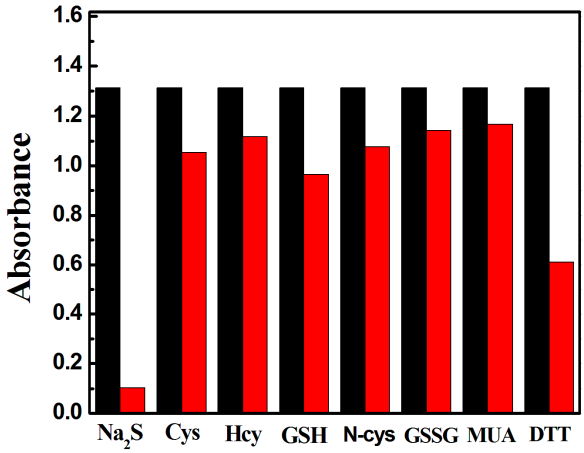

Figure S3. UV-Vis absorption responses of AgNPs in the absence (black columns) and presence of different thiol compounds (red columns). The reation time for S^{2-} and DTT, 20 min. The reation time for Cys, Hcy, GSH, GSSG, MUA N-cys, 2 h.

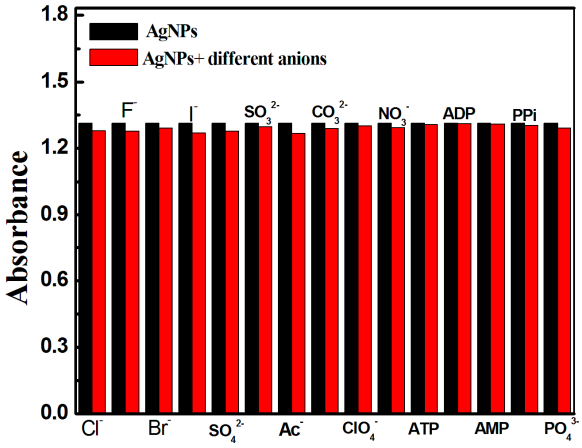

Figure S4. UV-Vis absorption responses of AgNPs in the absence (black columns) and presence of various anions (red columns) in aqueous solution. The concentration of Cl^-, NO_3^-, PO_4^{3-}, SO_4^{2-}, 100 μM; ATP, AMP, ADP, PPi, ClO_4^-, $CH_3CO_2^-$, CO_3^{2-}, SO_3^{2-}, 50 μM; F^-, Br^-, I^-, 20 μM.