## **Supporting information**

## Fluorescent probe for sensing ferric ions in bean sprouts based on L-histidine-stabilized gold nanoclusters

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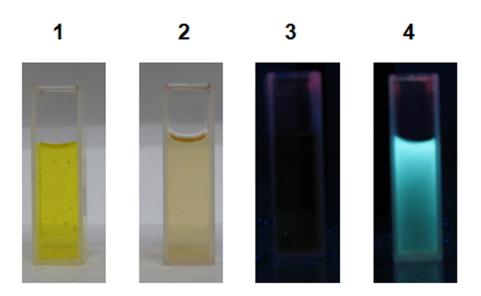
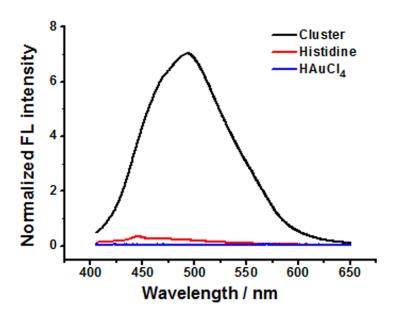


Fig. S1. Photographs under daylight (1, 2) and 365 nm UV light irradiation (3, 4) of Au NCs.



 $\textbf{Fig. S2.} \ \text{The fluorescence spectra of the Au NCs, histidine solution and } \ \text{HAuCl}_4 \ \text{solution}.$ 

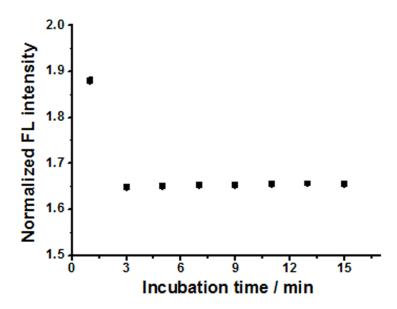
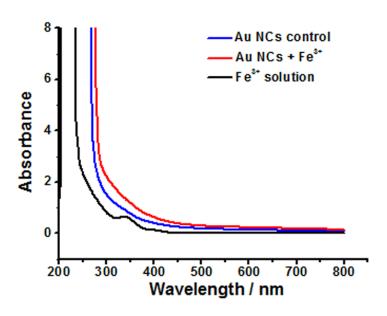
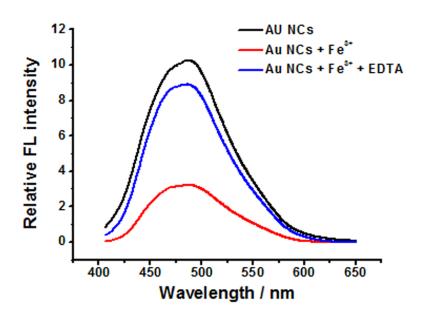


Fig. S3. Optimization of the incubation time for the fluorescence variation of the AuNCs in the presence of 1000.0  $\mu$ M Fe<sup>3+</sup> ions.



**Fig. S4**. UV/Vis absorption spectra of Fe $^{3+}$  solution (black line), aqueous Au NCs (blue line) and Au NCs in the presence of 500.0  $\mu$ M Fe $^{3+}$  ions (red line).



**Fig. 5.** Fluorescence spectra of the Au NCs solution (black line), in the presence of 1000.0  $\mu$ M Fe<sup>3+</sup> (blue line), and in the presence of 1000.0  $\mu$ M EDTA and Fe<sup>3+</sup> (red line).