

## **Supporting Information**

for

## Detection and imaging of Hg(II) in vivo using glutathionefunctionalized gold nanoparticles

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## Additional experimental data

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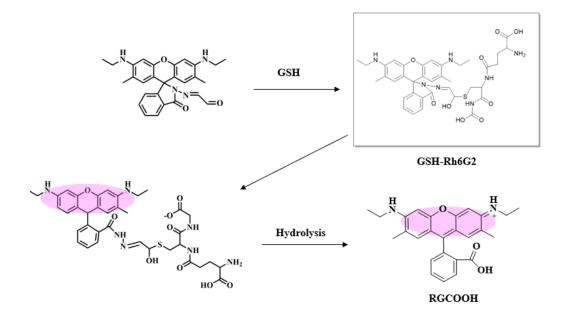
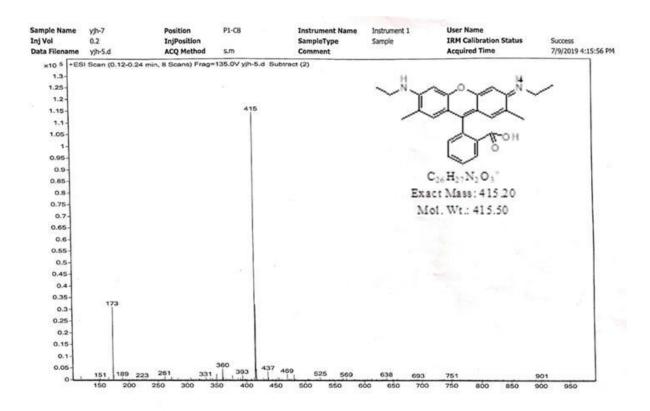
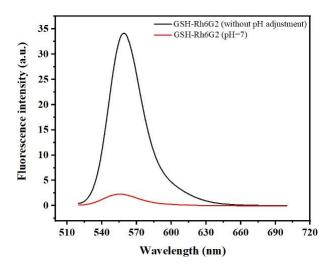


Figure S1: Speculative scheme of the reaction between Rh6G2 and GSH.



**Figure S2:** Mass spectra of GSH-Rh6G2. The fluorescent substance of GSH-Rh6G2 was separated, which proved that m/z is 415 as RGCOOH.



**Figure S3:** Fluorescence spectra of GSH-RH6G2 in weakly acidic environment (black curve) and in neutral environment (red curve).

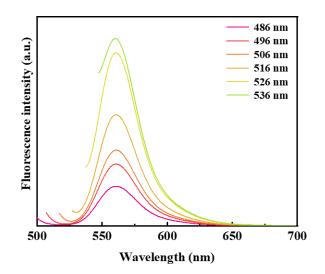


Figure S4: Fluorescence emission spectra of the GNPs-GSH-Rh6G2 with different excitation wavelengths.

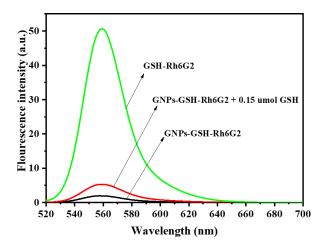


Figure S5: Fluorescence spectra of molecular saturation test of GNPs-GSH-RH6G2