

Supporting Information for
**Assembly of “Carrier Free” Enzymatic Nano-Reporters for
Improved ELISA**

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This Supporting Information includes Supplementary Figure S1, Figure S2, Figure S3, and
Figure S4.

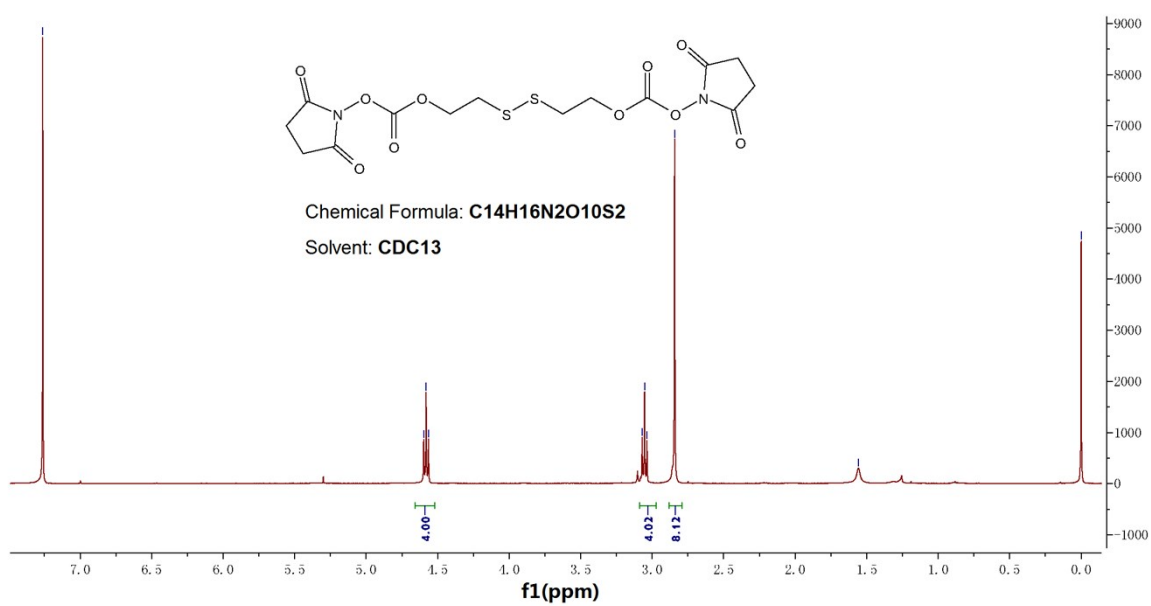


Figure S1. NMR analysis of NHS-SS-NHS. CDCl₃, 500 MHz: δ 4.57 (t, 4H), 3.04 (t, 4H), 2.82 (s, 8H).

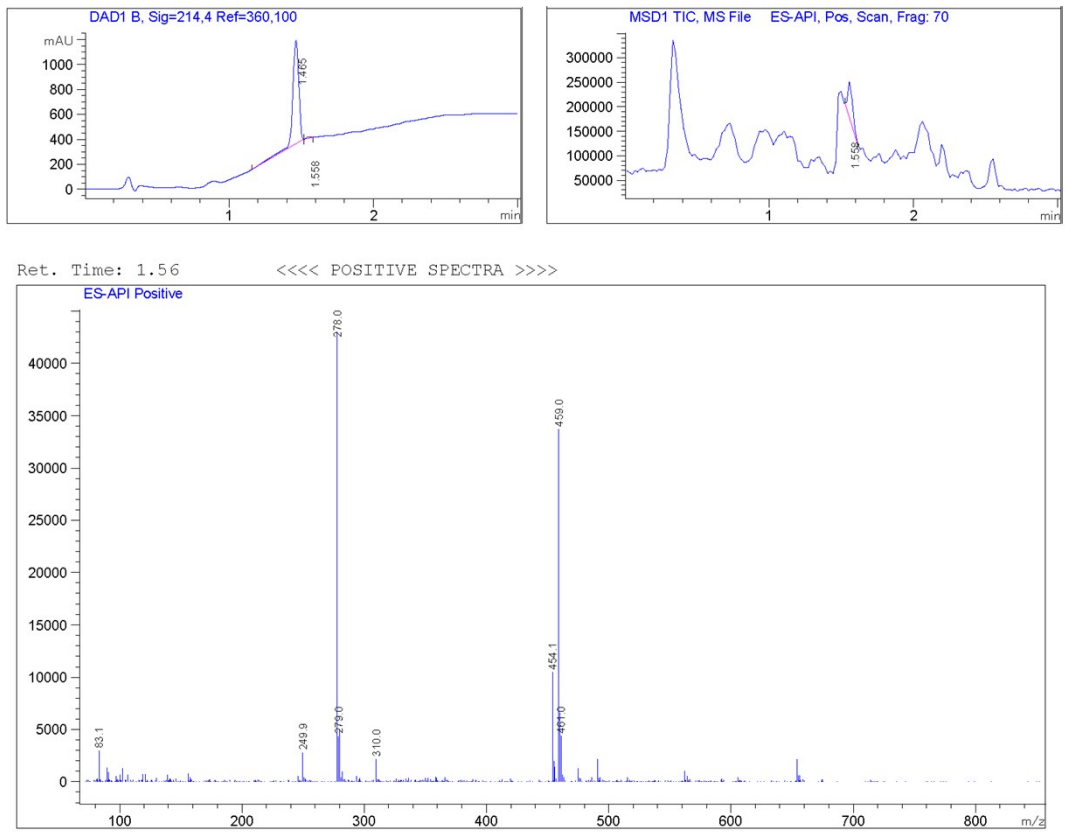


Figure S2. LC-MS analysis of NHS-SS-NHS.

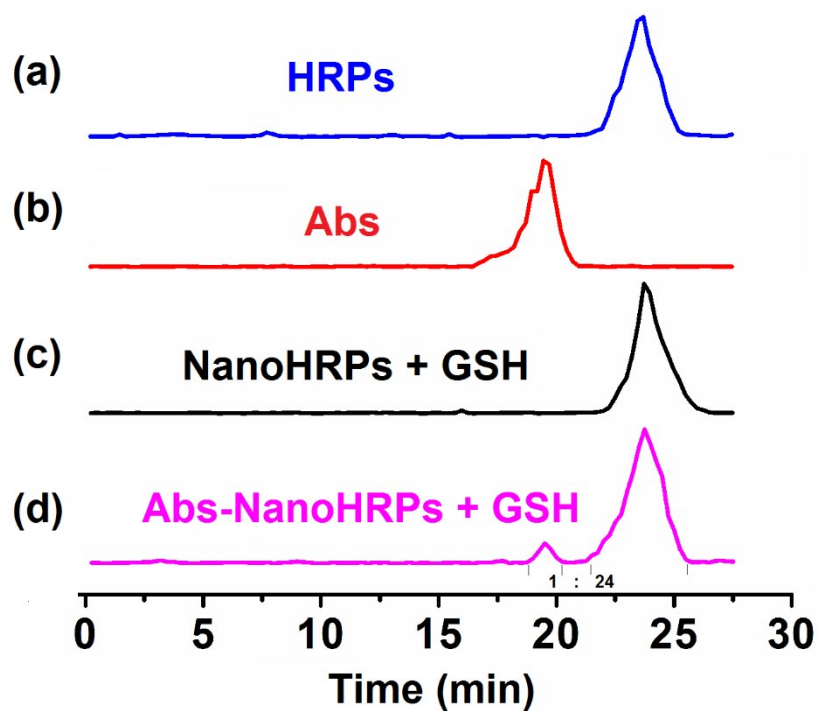


Figure S3. HPLC analysis of the antibody conjugated NanoHRPs. (a) Free HRPs. (b) Free anti-CEA antibody (Abs). (c) NanoHRPs (without Abs conjugated) were incubated with GSH for 30 min. (d) NanoHRPs (conjugated with Abs) were incubated with GSH for 30 min. The peak-area ratio of antibody to HRP is 1:24.

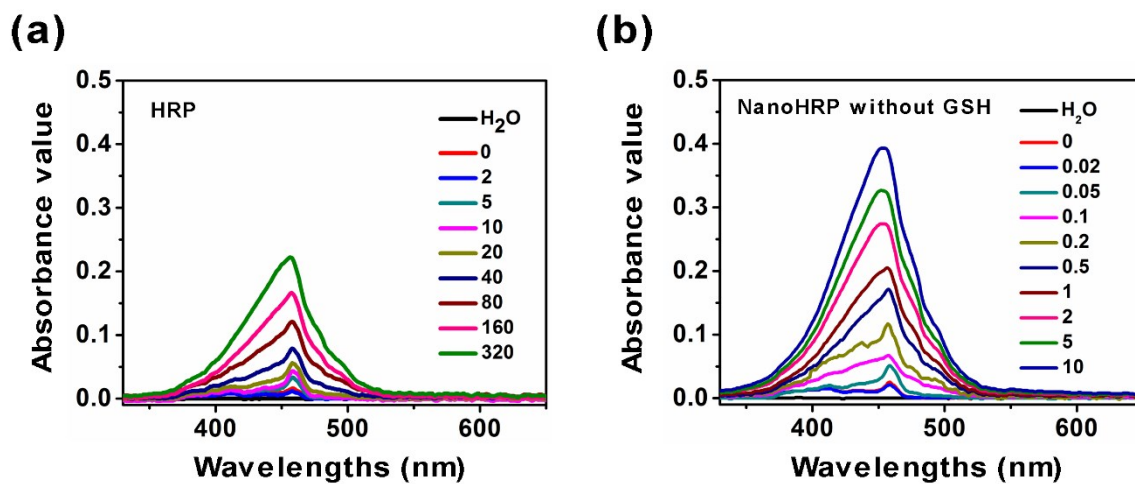


Figure S4. Absorption spectrum of chromogenic agent for different CEA concentrations. (a) Traditional antibody conjugated HRP probe. (b) Antibody conjugated NanoHRP probe without addition of GSH.