Supporting information

Competitive inhibition enzyme-linked immune

The test principle is Sandwich enzyme immunoassay. A 96-well micro-plate used in this experiment has been pre-coated with an antibody specific to Pro-Gastrin Releasing Peptide (proGRP). Standards or samples are then added to the appropriate microplate wells with a biotin-conjugated antibody specific to proGRP. The antigen of proGRP in Standards or samples and the antigen of proGRP conjugated to biotin will combine with antibodies in the microplate by competitive binding test. The micro-plate was then washed repeatedly to remove uncombined bio-composites. Nest, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After tetramethylbenzidine (TMB) substrate solution is added, only those wells that contain proGRP, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction in terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm. The concentration of proGRP in the samples is then determined by comparing the O.D. of samples with the calibration curve..

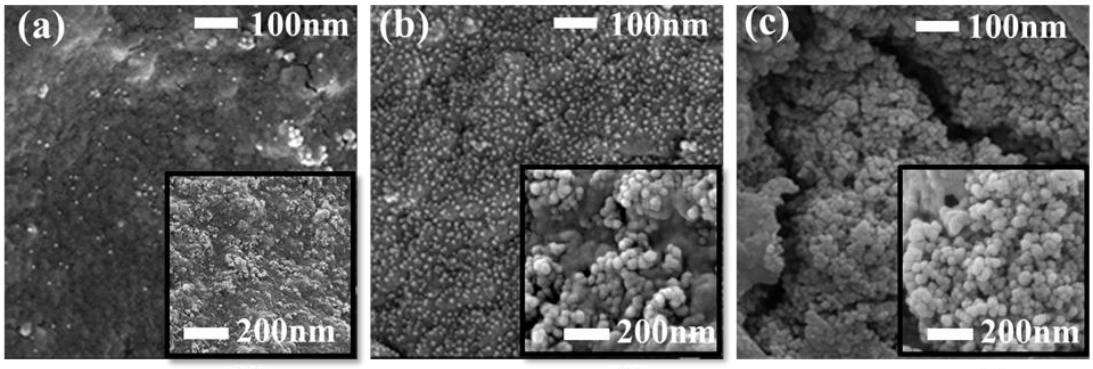

Fig. 2S SEM images of Se NCs of the reaction time for 0.5h (a), 2h (b), 4h (c)（The concentration of H_2SeO_3 was 500 mg L^{-1}）(Supporting information of Fig.2)

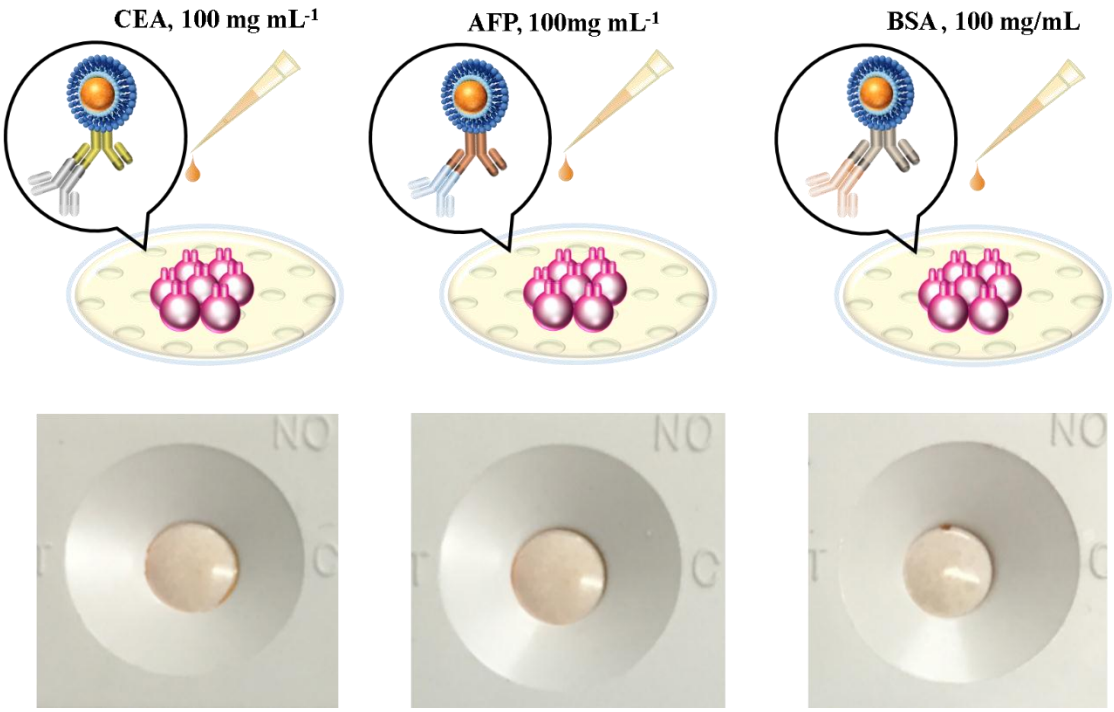

Fig. 4S Actual result after serum test (3 min) for three kinds of potential interfering substances. (The concentration of pro-GRP was 25 pg mL^{-1}) (Supporting information of Fig. 4)