Electronic Supplementary Material (ESI) for Analyst

Supporting Information

Dual Signal Amplification for Bioassays Using Ion Release of Nanolabels and Ion-Activated Enzyme Kinetics

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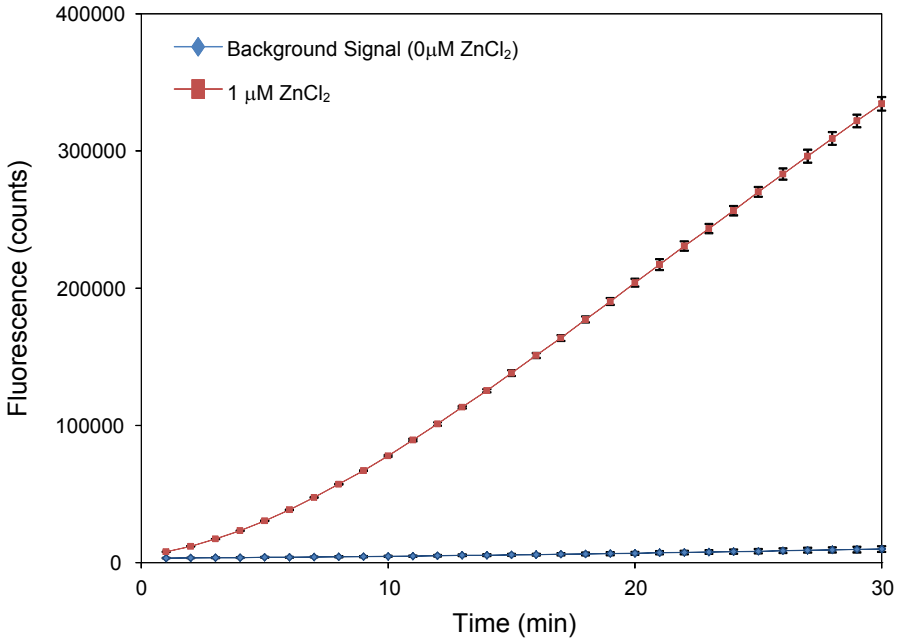

Figure S1. The fluorescence response for the enzymatic reaction of 2 μM apo-CA and 10 μM FDA with two different $ZnCl_2$ concentrations

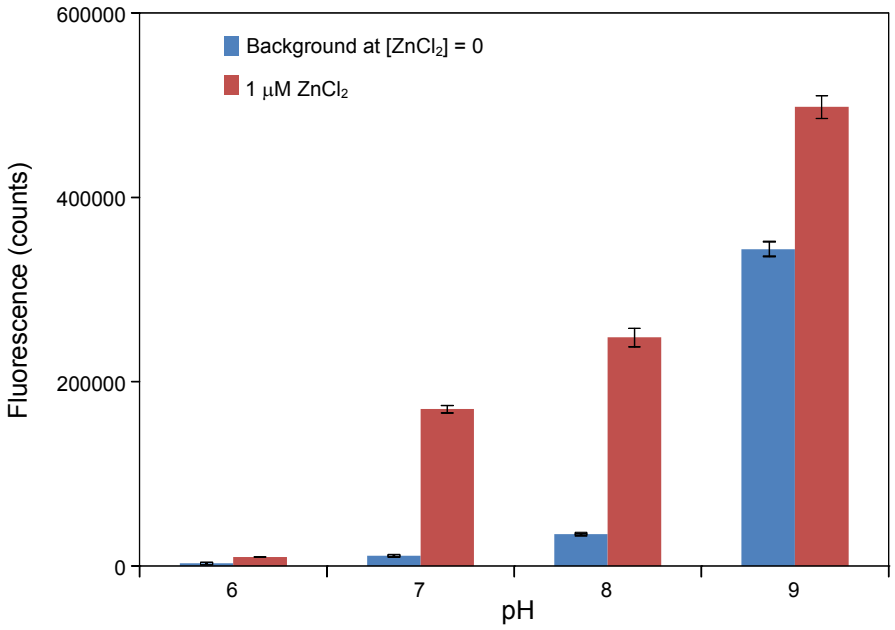

Figure S2. Effects of pH on the reaction of apo-CA with $ZnCl_2$ and FDA (all chemicals are prepared in solutions with the same pH)

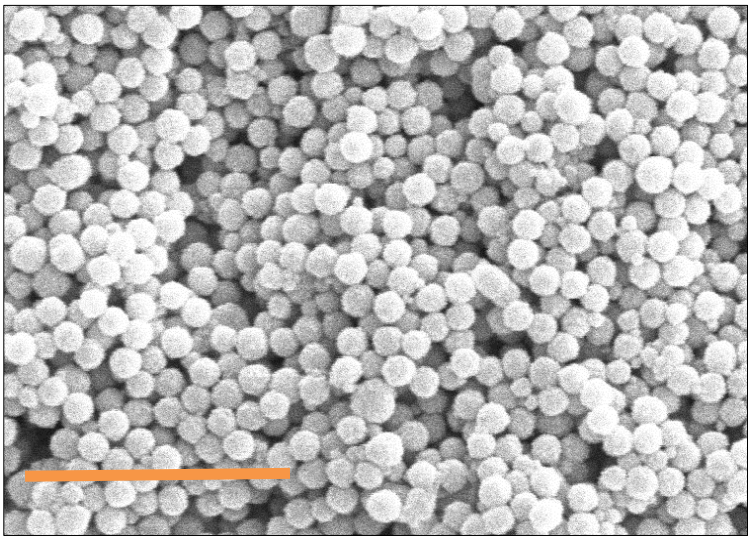

Figure S3. SEM image of the prepared ZnS nanoparticles with a ~50 nm diameter (the bar in the image is in 500 nm scale)

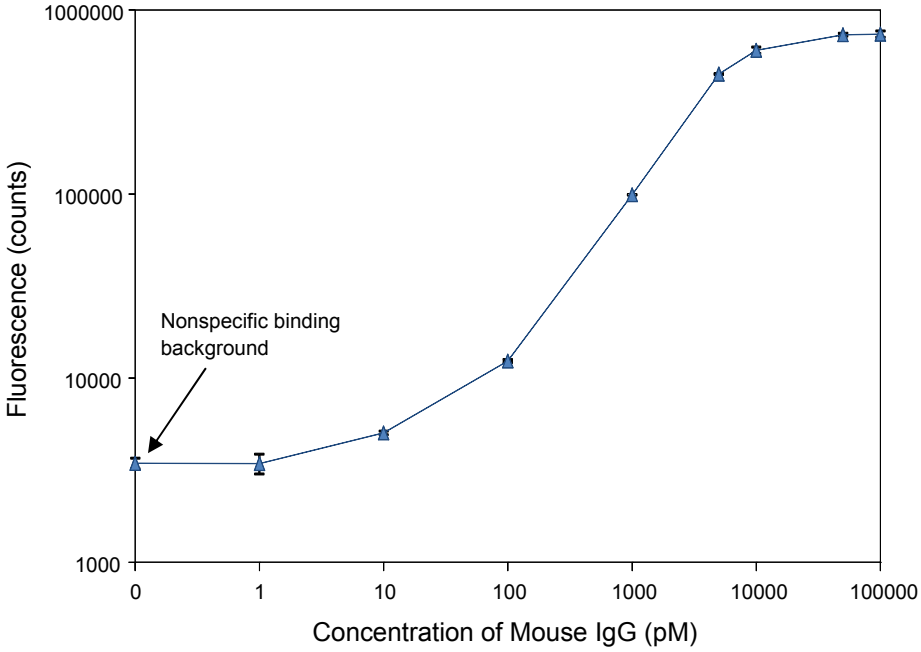

Figure S4. The calibration curves of the streptavidin-beta-galactosidase based immunoassay on mouse IgG (the detection limit is around 5 pM on the basis of the three times of standard deviation of the background)

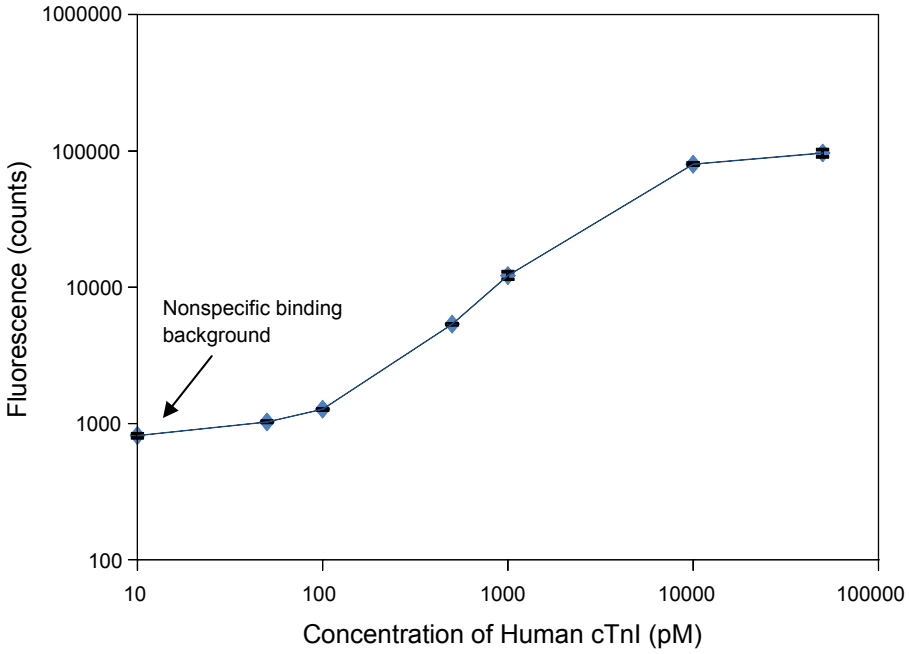

Figure S5. The calibration curves of the streptavidin-beta-galactosidase based immunoassay on cTnI (the detection limit is around 50 pM on the basis of the three times of standard deviation of the background)