

Streptococcus suis II immunoassay based on thorny gold nanoparticles and surface enhanced Raman scattering

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Effect of MRP concentration and IgG ratio on SERS assay

10 In an indirect sandwich immunoassay, the detection sensitivity is mainly dominated by the performance of capture antigen and secondary antibody, and the detection signal critically depends on the number of secondary antibody conjugated SERS tags. To achieve a ultrahigh sensitivity, we improved the SERS assay by optimizing the concentration of capture antigen and ratio of rabbit anti-pig IgG relative to pMBA-tAuNPs (Figure S1 and S2). According to the obtained data, capture antigen concentration of 2.5 $\mu\text{g/mL}$, IgG volume of 50 μL were used in the following experiments.

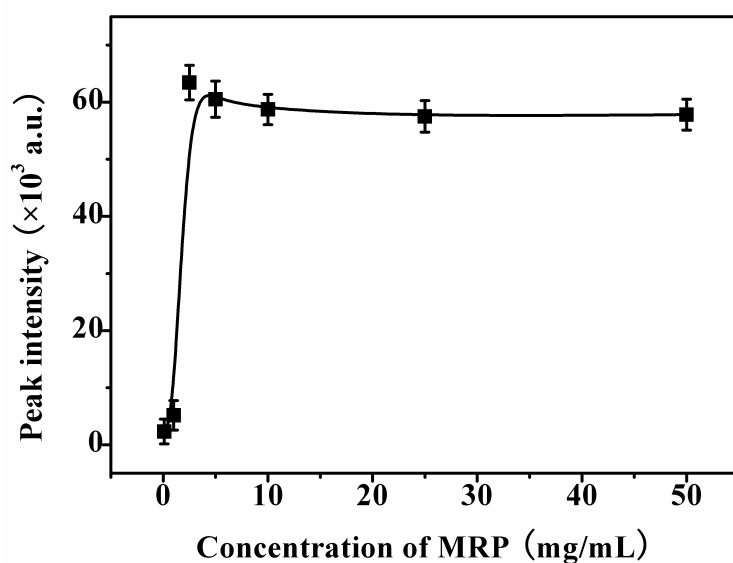


Figure S1 Effect of MRP concentration on the SERS-based immunoassay for MRP antibody (100 ng/mL).

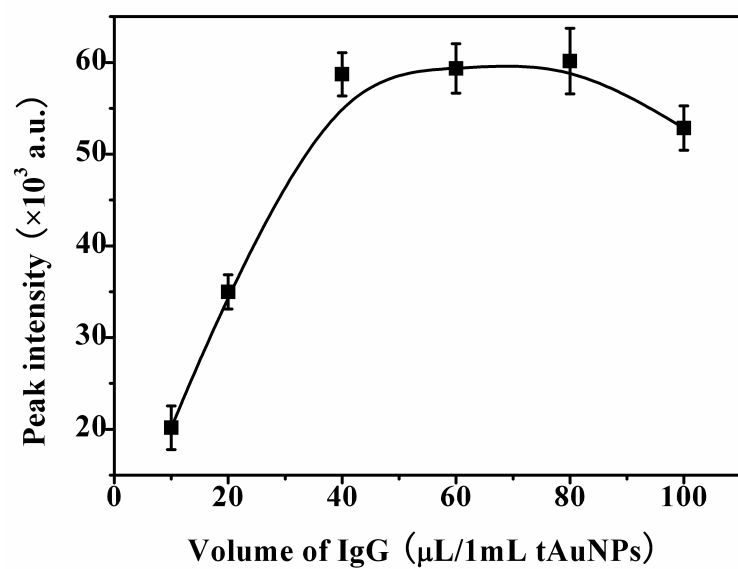


Figure S2 Effect of IgG ratio on the SERS-based immunoassay for MRP antibody (100 ng/mL).