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Supporting information Matrix Effect of Five Kinds of Meat on Colloidal Gold Immunochromatographic Assay for Sulfamethazine Detection Namei Liu^{a,1}, Keyu Xing^{a,1}, Chun Wang^a, Ganggang Zhang^a, Meifang Yuan^a, Danhong Lib, Weihua Laia,*, Juan Pengb,* ^a State Key Laboratory of Food Science and Technology, Nanchang University, Nanchang 330047, China ^b School of Food, Nanchang University, Nanchang 330047, China ¹ These authors contributed equally to the work. * Corresponding authors: Weihua Lai (talktolaiwh@163.com) and Juan Peng (pengjuan2016@163.com), Tel.: +86 13879178802, fax: +86 791 88333708.

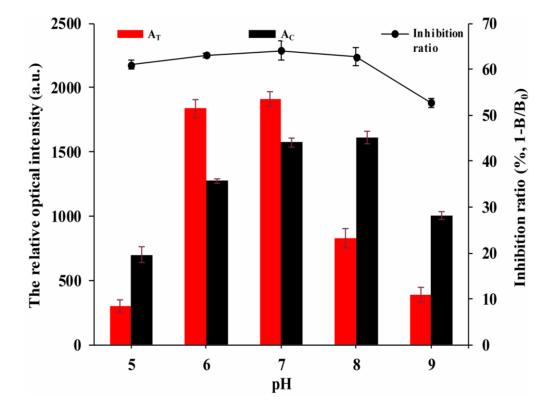


Fig. S1. Optimization of coupling pH between CG nanoparticles probe and anti-SM $_2$ mAb. The competitive inhibition ratio was obtained by 1–B/B $_0$. B $_0$ and B of all optimizations represented A $_T$ /A $_C$ of the negative sample and the positive sample (0.3 ng/mL), respectively. Data were obtained from three replicates.

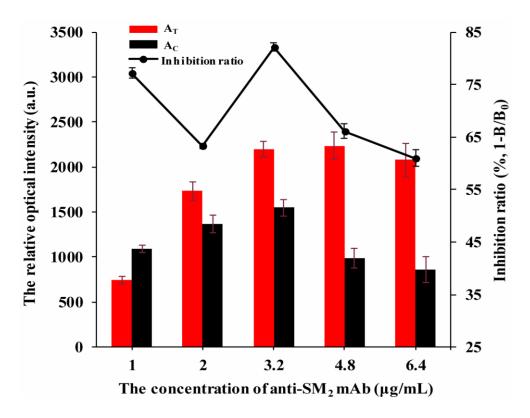
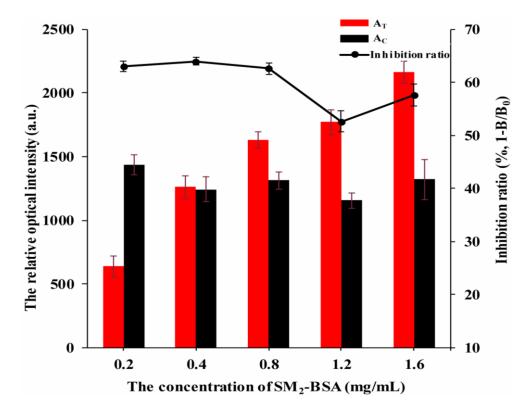


Fig. S2. Optimization of the anti-SM₂ mAb concentration. The competitive inhibition ratio was obtained using the following equation: $1-B/B_0$. B_0 and B of all optimizations represented A_T/A_C of the negative sample and the positive sample (0.3 ng/mL), respectively. Data were obtained from three replicates.



Figs. S3. Optimization of the SM₂-BSA concentration on the T line on the test line of CG-ICA. The competitive inhibition ratio was obtained using the following equation: $1-B/B_0$. B_0 and B of all optimizations represented A_T/A_C of the negative sample and the positive sample (0.3 ng/mL). Data were obtained from three replicates.

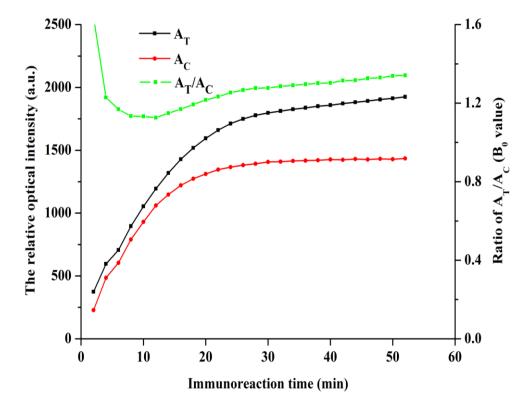


Fig. S4. Immunoreaction dynamics of the CG-ICA without SM₂.