Electronic Supplementary Material (ESI) for Analytical Methods.

Supplementary Information

Graphene-labeled Synthetic Antigen as Novel Probes for Enhancing Sensitivity and Simplicity in Lateral Flow Immunoassay

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Preparation of Au nanoparticles (AuNPs)

Specifically, an Erlenmeyer flask (250 mL) and a magnetic stirrer (2 cm) was immersed in aqua regia for 2 hours to remove impurity ions, and then washed three times with ultra-pure water. 100 mL of ultra-pure water was added to the washed Erlenmeyer flask and heated to boiling. Turn on the magnetic stirrer, 1 mL of 1% chloroauric acid was added under stirring and the solution turned pale yellow. Under the conditions of uniform stirring and boiling, 4 mL of 1% freshly prepared trisodium cit-rate solution was quickly added, and stirred vigorously to make it fully react. After about 10 minutes, the solution turned wine red, indicating the successful preparation of AuNPs. The solution was continuously boiled for another 15 minutes to make the AuNPs mature and stable, showing a uniform spherical shape and achieving good dispersion. After natural cooling, ultra-pure water was added to make it reach the initial volume (100 mL). Finally, the AuNPs solution was sealed and stored at 4 °C for later use.

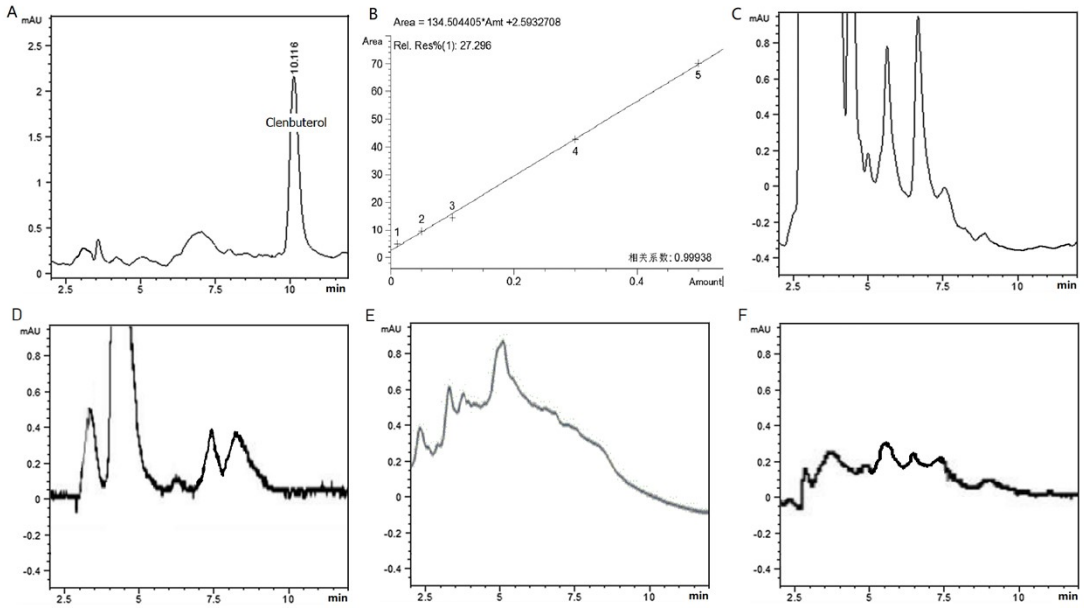

Fig. S1 (A) HPLC of clenbuterol standard solution (B) Clenbuterol standard curve (C) HPLC of clenbuterol-negative pork sample (D) HPLC of clenbuterol-negative mutton sample (E) HPLC of clenbuterol-negative sausage sample (F) HPLC of clenbuterol-negative bacon sample