

Enhanced Competitive Immunomagnetic Beads Assay Assisted with PAMAM-Gold Nanoparticles Multi-Enzyme Probes for Detection of Deoxynivalenol

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Table S1. Optimization of parameters in magnetic immunoassays based on DON-HRP/AuNPs.

		Absorbance at 0 ng/mL of DON	Absorbance at 5 ng/mL of DON	Inhibition rate
Volume of IMBs in one test	20 μ L	1.547	0.454	29.35%
	30 μ L	1.871	0.445	23.78%
	40 μ L	1.934	0.460	18.61%
	1:500	1.895	0.358	18.89%
Dilution of antibody	1:1000	1.758	0.294	16.72%
	1:2000	1.354	0.245	18.09%
	1:50	2.214	0.567	25.61%
Dilution of DON-HRP/AuNPs	1:100	1.892	0.345	18.23%
	1:150	1.425	0.312	21.89%

Table S2. Optimization of parameters in magnetic immunoassays based on DON-HRP/AuNPs/PA-MAM.

		Absorbance at 0 ng/mL of DON	Absorbance at 5 ng/mL of DON	Inhibition rate
Volume of IMBs in one test	20 μ L	1.476	0.428	29.00%
	30 μ L	1.939	0.421	21.69%
	40 μ L	2.010	0.349	17.36%
Dilution of antibody	1:500	1.966	0.347	17.66%
	1:1000	1.813	0.313	17.29%
	1:2000	1.360	0.222	16.33%
Dilution of DON-HRP/AuNPs/PA-MAM	1:50	2.323	0.323	13.90%
	1:100	1.963	0.276	14.06%
	1:150	1.440	0.268	18.61%

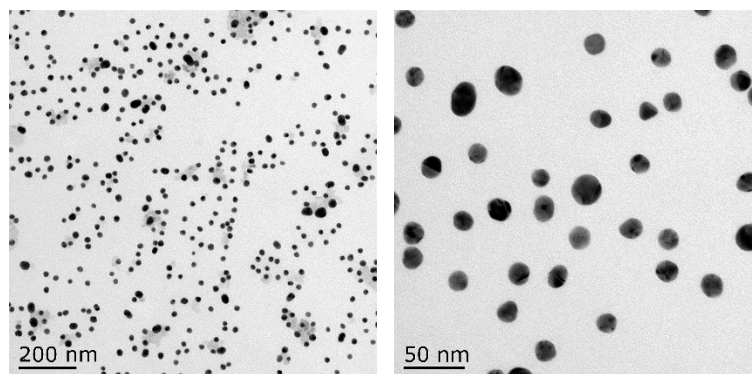


Figure S1. TEM images of AuNPs.

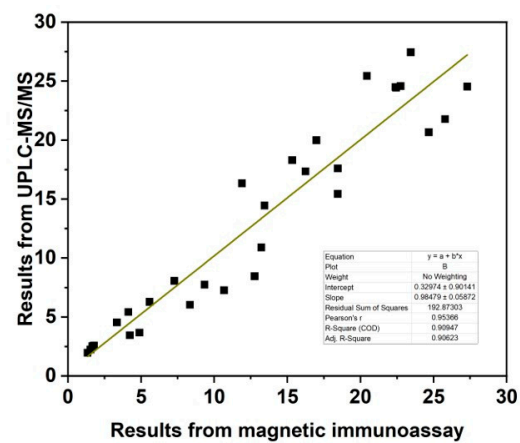


Figure S2. Correlation analysis between magnetic immunoassay based on DON-HRP/AuNPs/PA-MAM and UPLC-MS/MS.