Magnetic Quantitative Analysis for Multiplex Glycoprotein with Polymer-Based Elemental Tags

Hanyong Peng, Yang Jiao, Xiao Xiao, Beibei Chen, Man He, Zhengru Liu, Xing Zhang and Bin Hu*

Key Laboratory of Analytical Chemistry for Biology and Medicine (Ministry of Education), Department of Chemistry, Wuhan University, 430072, China

Supplemental materials

**Fig. S1.** $^1$H NMR spectroscopy of the synthesized polymer in D$_2$O.

**Fig. S2.** Effect of molar ratio between PAA and antibody.

**Fig. S3.** Comparison of PAA and DTPA-based methods used to label the same amount protein under respective optimized condition.

**Fig. S4.** Effect of blocking time. Sample volume: 200 μL; Concentration of HP, HPX, OVA: 10 ng mL$^{-1}$; blocking buffer: 50 μL

**Fig. S5.** Effect of sample volume on the signal intensity of metal ions. Concentration of HP, HPX, OVA: 10 ng mL$^{-1}$; blocking buffer: 50 μL

**Fig. S6.** Effect of eluent volume on the signal intensity of metal ions. Each time 15 μL, sample volume: 200 μL; Concentration of HP, HPX, OVA: 10 ng mL$^{-1}$; blocking buffer: 50 μL
Fig. S1
Fig. S2
Fig. S3
Fig. S4

![Graph showing CPS vs. Time (s)]
Fig. S5
Fig. S6

![Graph showing CPS values for different elution times with bars for Cd, Hg, and Pb.](Image)