**Additional file**

**Atom transfer radical polymer-modified paper for improvement in protein fixation in paper-based ELISA**

Lu Qia\*, Aihong Zhangb, Yu Wanga, Long Liua and Xinghe Wanga

aPhase I Clinical Trial Center, Beijing Shijitan Hospital, Capital Medical University, Beijing 100038, China

bInstitute of Chemical Defense, Beijing 102205, China

This Additional file includes additional information as described in the text of the main article:


**Fig. S1.** XPS measurements of N1s for Ab2-GO-HRP (A) and GO (B).

The Ab2-GO-HRP spectrum exhibits a single sharp N 1s peak centred at 399.6 eV (curve A in Fig. S1), while the spectrum of GO does not (curve B in Fig. S1). This result indicates that the dark spots originate from Ab2-GO-HRP.



**Fig. S2.** The calibration curves of AP-ELISA and P-ELISA.

AFP was detected using the AP-ELISA and P-ELISA method. Each concentration in the figure was tested six times, and eight different concentrations were detected by two methods. Each concentration represents the average of six independent measurements (N = 6). The error bars represent one standard deviation from the average.