

Highly sensitive and rapid visual detection of ricin using unmodified gold nanoparticle probes

Jingting Hu ^{a,b}, Haichao Dai ^{a,b}, Yujing Sun ^a, Pengjuan Ni ^{a,b}, Yilin

Wang^{a,b}, Shu Jiang ^{a,b}, Zhuang Li ^{a,*}

*^aState Key Laboratory of Electroanalytical Chemistry, Changchun Institute of
Applied Chemistry, University of the Chinese Academy of Sciences, Changchun, Jilin
130022, China*

^bUniversity of the Chinese Academy of Sciences, Beijing 100049, China

Fig. S1. Hydrodynamic diameter of AuNPs measured by DLS in different solution. (A) 2.78 nM AuNPs solution mixed with 83 nM RBA for 5 min after the addition of 0.138 M NaCl. (B) 2.78 nM AuNPs solution in the presence of 83 nM RBA and 3.08 nM ricin for 5 min after the addition of 0.138 M NaCl.

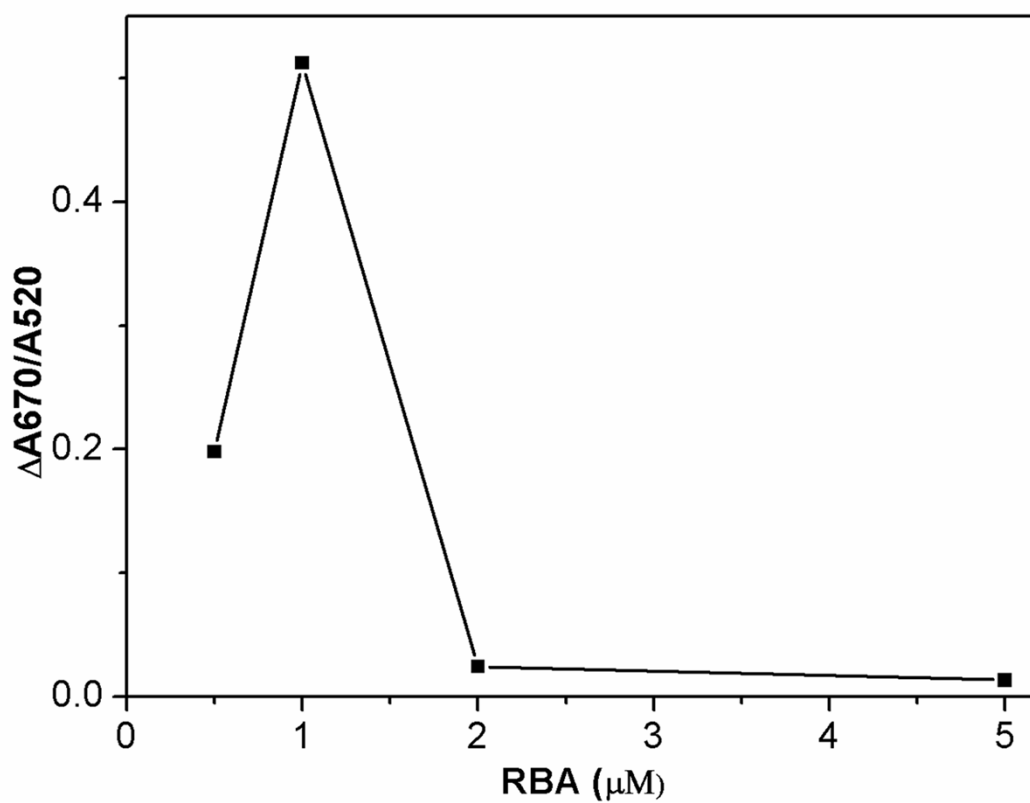


Fig. S2. Effect of aptamer amount on the sensitivity of ricin detection .

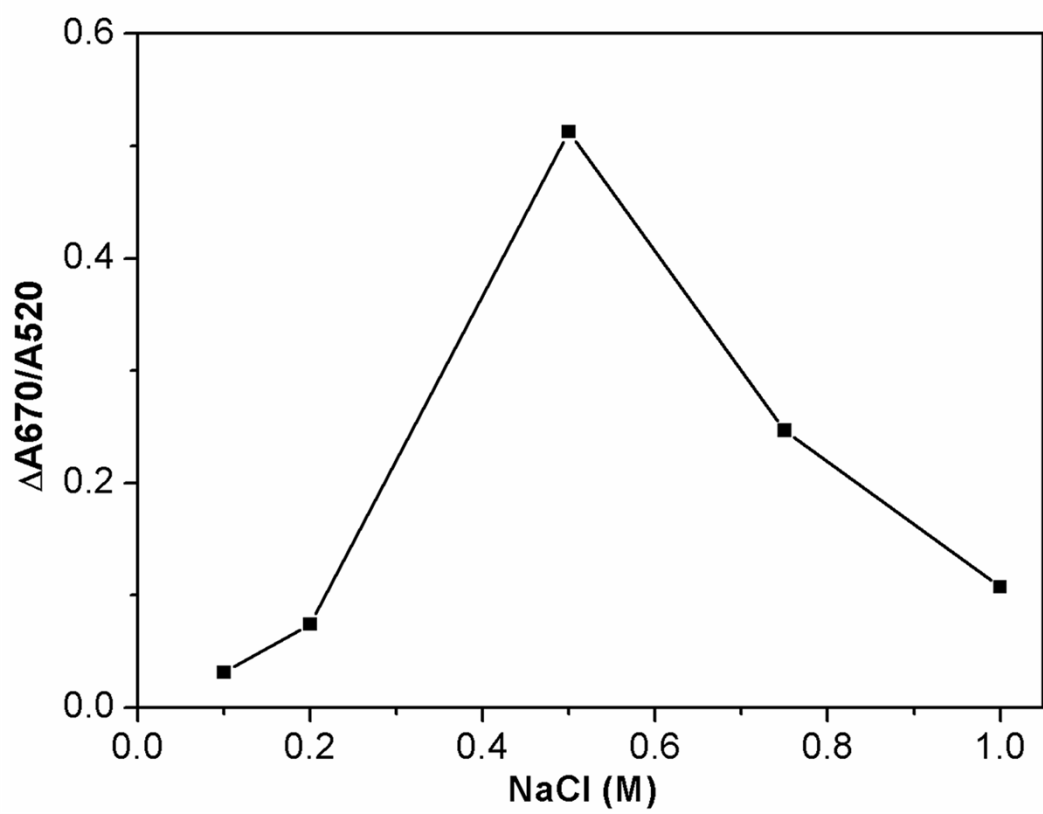


Fig. S3. Effect of salt concentrations on the sensitivity of ricin detection.

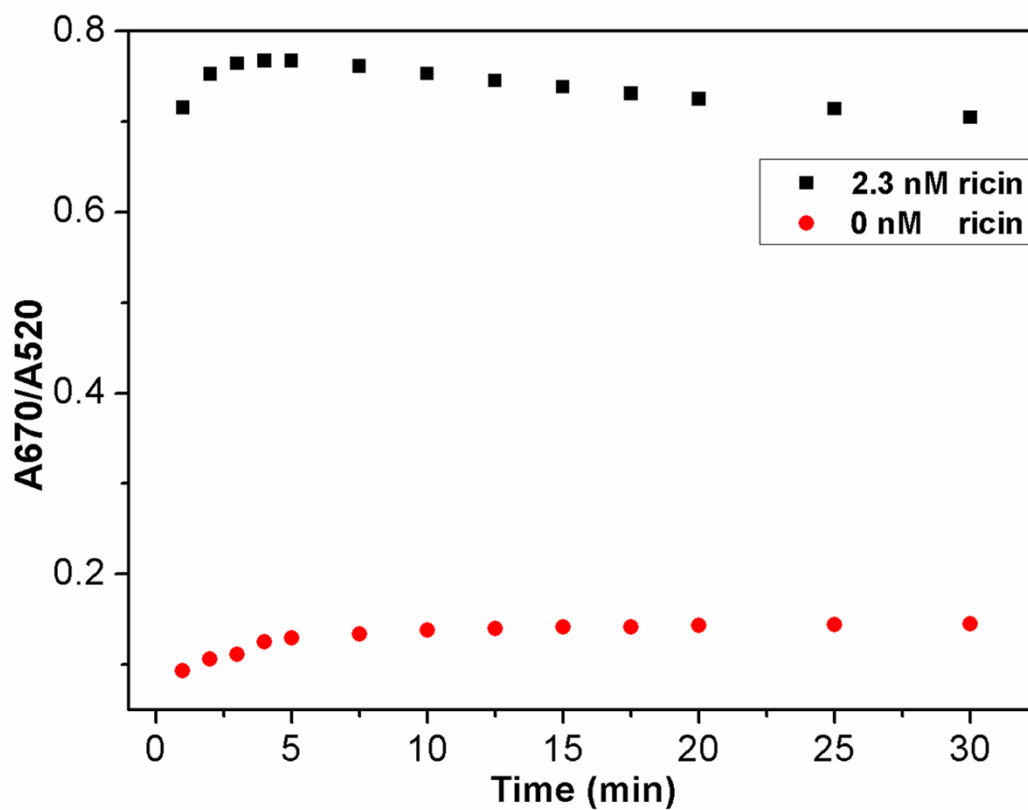


Fig. S4. Effect of the reaction time after adding NaCl on the sensitivity of ricin detection.