

Supplementary Information

Combining a Loop-Stem Aptamer Sequence with Methylene Blue: A simple assay for Thrombin Detection by Resonance Light Scattering Technique

Xiaopeng Huang,^{a†} Yuqin Li,^{b†} Xiang Huang,^a Yaowen Chen,^c and Wenhua Gao,^{ac*}

^a Department of Chemistry, Shantou University, Shantou, Guangdong 515063, P. R. China.

^b Department of Pharmacy, Taishan Medicine College, Taian, Shandong 271016, P. R. China.

^c Analysis & Testing Center, Shantou University, Shantou, Guangdong 515063, P. R. China.

* *Corresponding author. Tel: +86-22-86502774; Fax: +86-22-82903941*
E-mail address: whgao@stu.edu.cn

† Both the authors contributed equally to the paper.

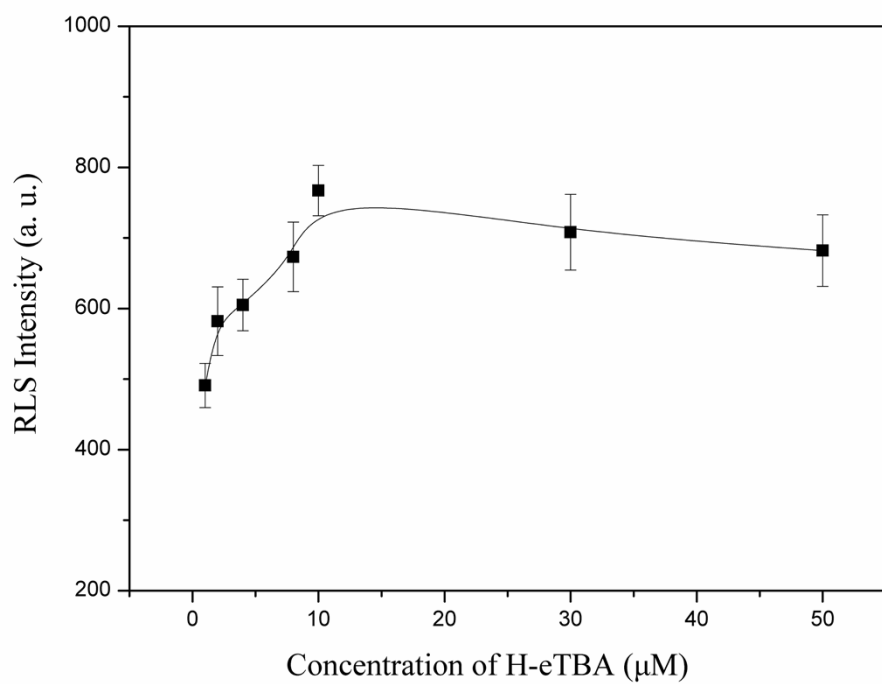


Fig. S1 RLS spectra of the reaction system upon different concentration of H-eTBA (1 μL, 1, 2, 4, 8, 10, 30 and 50 μM). Conditions: MB: 50 μM; pH value: 7.40. Error bars were the standard deviation of three repetitive measurements.

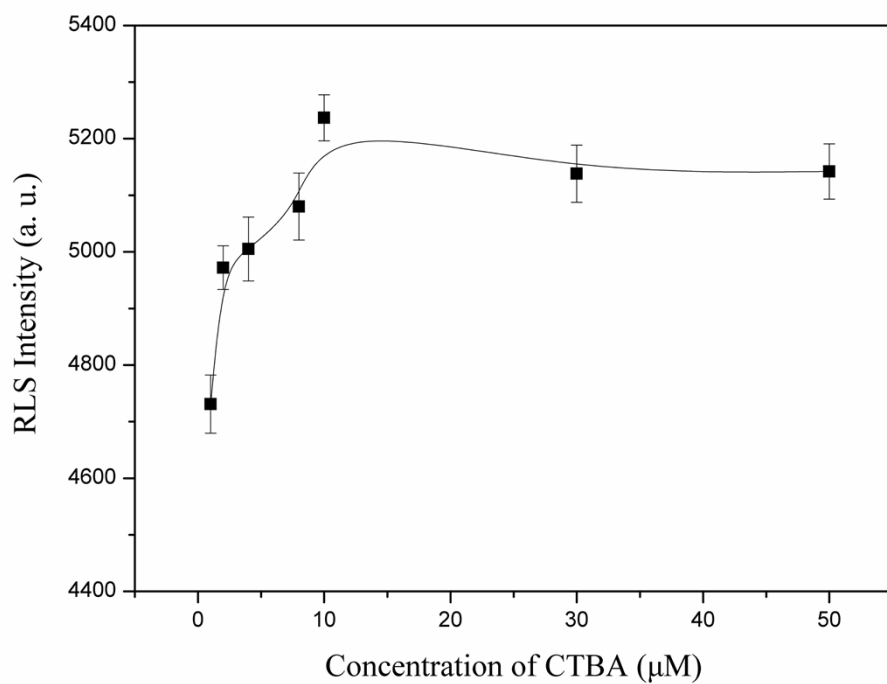


Fig. S2 RLS spectra of the reaction system upon different concentration of CTBA (1 μL , 1, 2, 4, 8, 10, 30 and 50 μM). Conditions: MB: 50 μM ; H-eTBA: 1 μL , 10 μM ; pH value: 7.40. Error bars were the standard deviation of three repetitive measurements.

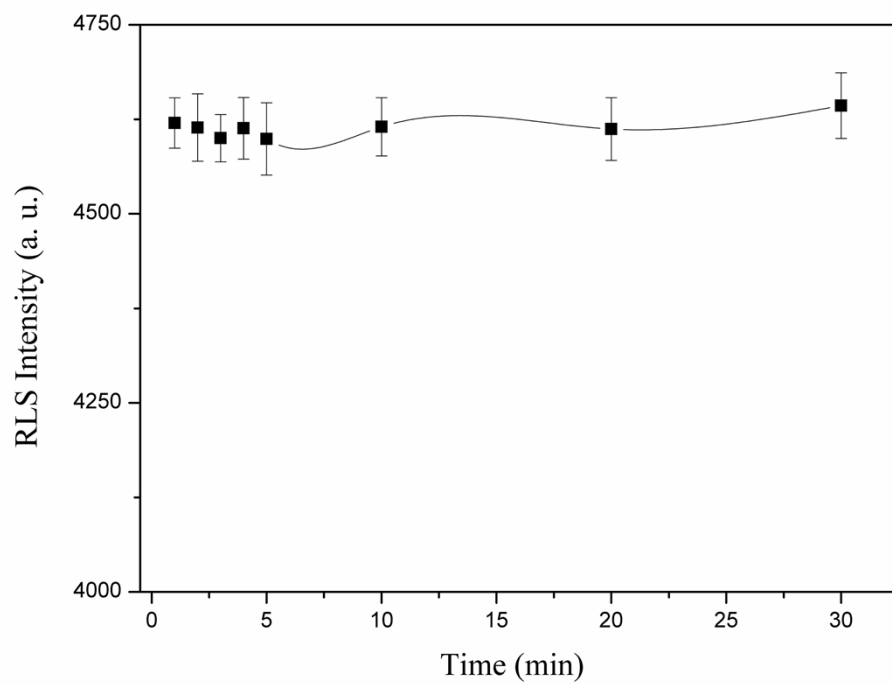


Fig. S3 RLS spectra of the reaction system upon the different incubation time. Conditions: MB: 50 μ M; H-eTBA: 1 μ L, 10 μ M; CTBA: 1 μ L, 10 μ M; thrombin: 4.91 nM; pH value: 7.40. Error bars were the standard deviation of three repetitive measurements.

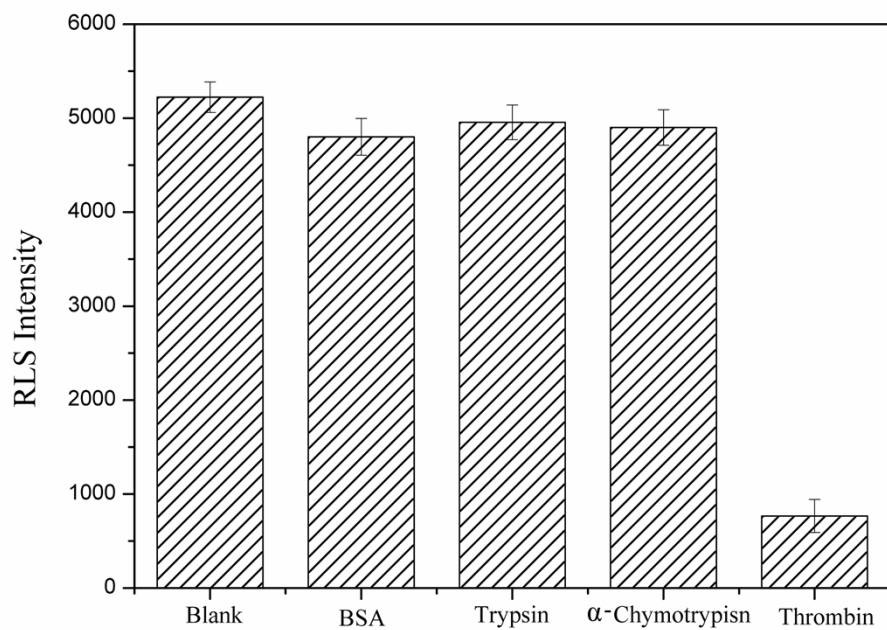


Fig. S4 RLS intensity comparison of the protein interferences toward human thrombin. All interferences (BSA, Trypsin and α -Chymotrypsin) were tested at the concentration of 27.25 nM. The RLS signal of thrombin was tested at 17.18 nM. Other conditions: MB: 50 μ M; H-eTBA: 1 μ L, 10 μ M; CTBA: 1 μ L, 10 μ M; pH7.40. Error bars were the standard deviation of three repetitive measurements.