Supplementary information:

A sensitive fluorescence biosensor based on metal ion-mediated DNAzyme activity for amplified detection of acetylcholinesterase

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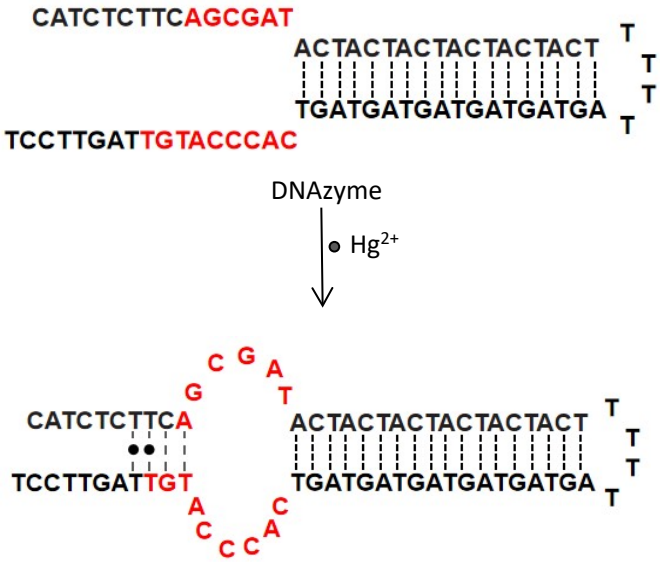

Figure S1：Secondary structures of Mgzyme and Mgzyme-Hg^{2+} complex. The red nucleotides were the highly-conserved nucletedes of Mgzyme.

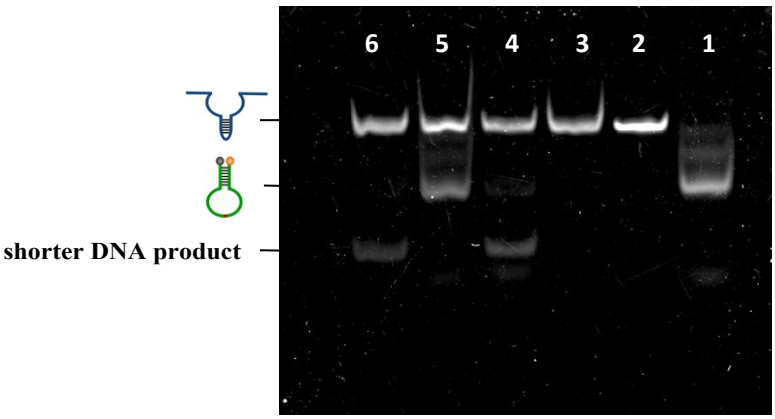

Figure S2: Nondenaturing PAGE (12%) analysis of detection MB digestion. Lane 1: MB; Lane 2: Mgzyme; Lane 3: mixture of Hg^{2+} and Mgzyme; Lane 4: mixture of Mgzyme and MB at 1:2 molar ratio; Lane 5: mixture of MB, Mgzyme, Hg^{2+} and ATCh; MB, Mgzyme, Hg^{2+} at 1:2:10 molar ratio; Lane 6: mixture of MB, Mgzyme, Hg^{2+}， ATCh and AChE, MB; Mgzyme, Hg^{2+} at 1:2:10 molar ratio.

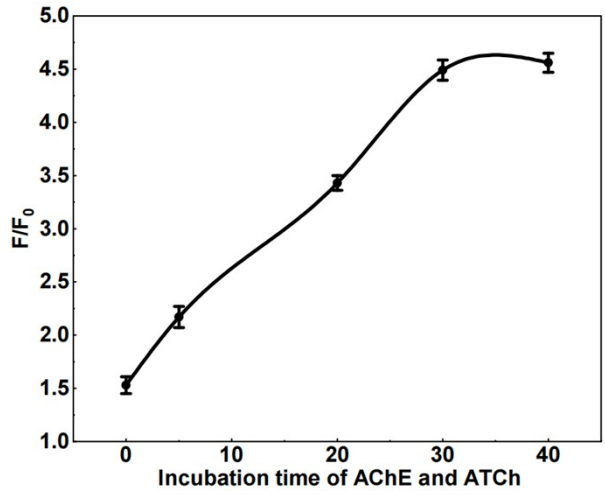

Figure S3: The effect of incubation time of AChE and ATCh on the fluorescence response of the sensing system. The concentrations of Mgzyme, MB, Hg^{2+} and ATCh are 50 nM, 100 nM, 500 nM and 16 μM. F and F_0 are the fluorescence intensities of the biosensor in the presence and absence of 2 mU/mL AChE, respectively.