Article

A Fluidics-based Biosensor to Detect and Characterize Inhibition Patterns of Organophosphate to Acetylcholinesterase in Food Materials

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Citation: Pham, D.S.; Nguyen, X.A.; Marsh, P.; Chu, S.S.; Michael P.H. Lau3; Nguyen, A.H.; Cao, H. A Fluidics-based Biosensor to Detect and Characterize Inhibition Patterns of Organophosphate to Acetylcholinesterase in Food Materials. *Micromachines* **2021**, *12*, 397. https://doi.org/10.3390/mi12040397

Received: 4 March 2021
Accepted: 1 April 2021
Published: 3 April 2021

Supporting information

Supplementary Materials: The following are available online at www.mdpi.com/xxx/s1.

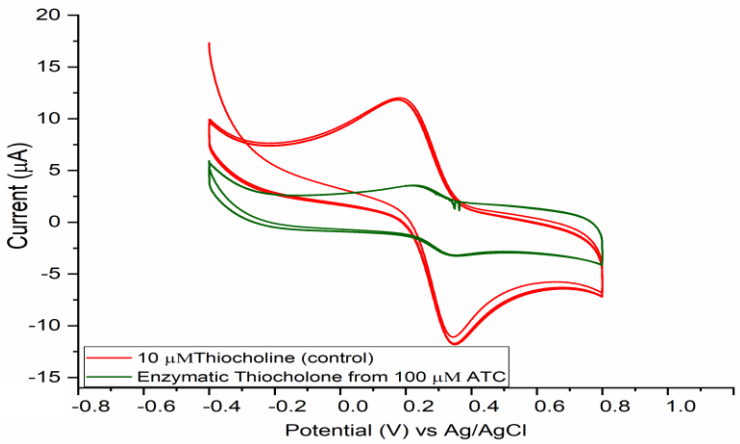

Figure S1. Cyclic voltammetric assay on composite electrode with 10 μM enzymatic thiocholine (green) and 10 μM thiocholine as a control (red).

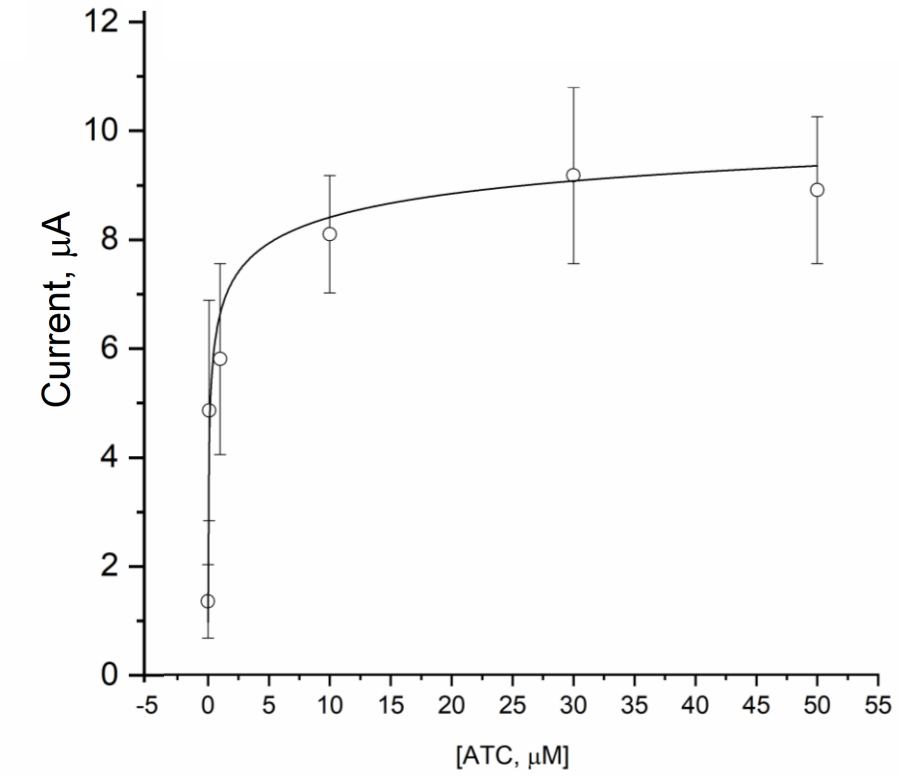

Figure S2. ATC saturation kinetics of AChE . Reaction mixture contained in 0.5 ml of different concentration of ATC as indicated and the phosphate buffer (10 mM, pH 8.0) mixed with 0.1 M KCl. Saturated current was around 30 μM of ATC.

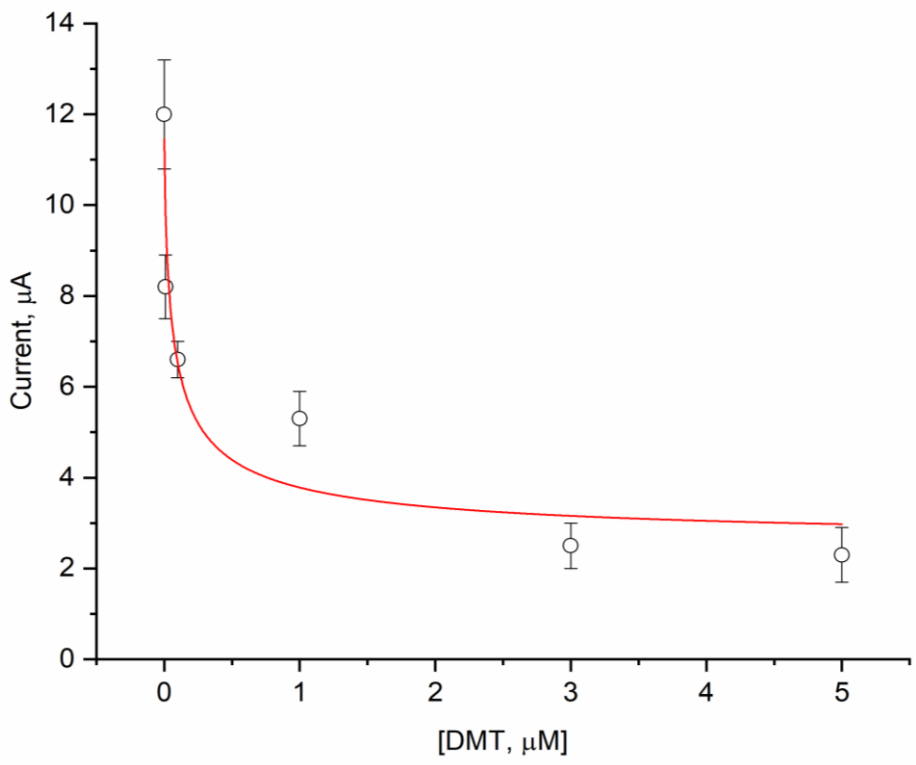

Figure S3. Concentration-based AChE inhibition. AChE activity was inhibited at 50% (IC_{50}) 0.57 μM.

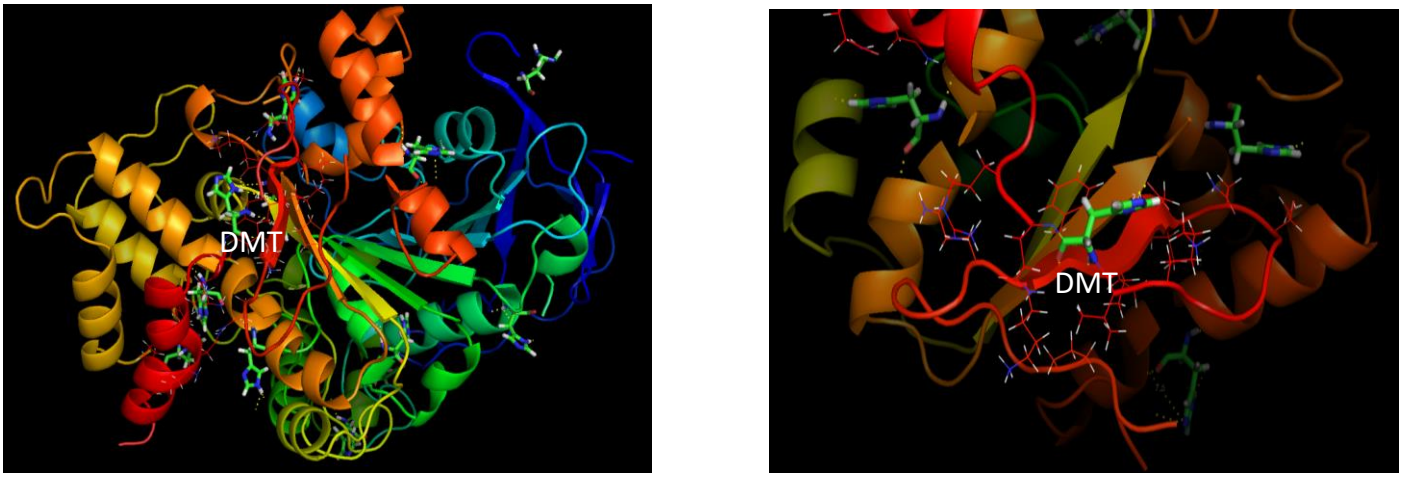

Figure S4. (a) DMT binding to another sites of AChE molecules. (b) DMT binding to active site (Ser-His-Glu). Molecular Swiss Dock[1] was used for the molecular binding modeling.

1. Grosdidier A, Zoete V, Michielin O: **SwissDock, a protein-small molecule docking web service based on EADock DSS**. *Nucleic Acids Res* 2011, **39**(Web Server issue):W270-W277.