Supplementary material

A tetrapeptide from maize protects a transgenic *Caenorhabditis elegans* Aβ1-42 model from Aβ-induced toxicity

Zhixian Zhang[a], Heran Ma[a], Xiaoying Wang[b], Ziyuan Zhao[a], Yue Zhang[a], Baolu Zhao[c], Yi Guo[a,*], Li Xu[a,*]

[a] Key laboratory for Molecular Enzymology and Engineering, the Ministry of Education, National Engineering Laboratory for AIDS Vaccine, School of Life Sciences, Jilin University, Changchun 130012, China

[b] Jilin Province People's Hospital, Changchun 130021, China

[c] State Key Laboratory of Brain and Cognitive Science, Institute of Biophysics, Chinese Academy of Sciences, Beijing 100101, China

* Corresponding authors.
Email addresses: guoyi@jlu.edu.cn (Y. Guo), xuli@jlu.edu.cn (L. Xu).

Aβ1-42 aggregation *in vitro*

Under the excitation of 450 nm, we can detect the intensity of florescence which can represent the quantity of Aβ aggregation at 485 nm emission. Aβ1-42 monomer was prepared using hexafluoro-isopropanol (HFIP). Different concentrations of Aβ1-42 monomer were added into a 96-well plate with 50 μM TPM and thioflavin T, the fluorescence intensity was measured using a microplate reader (infinite F200 Pro, TECAN) every 2 hours for 24 hours. For control group, we mixed PBS (pH 6.6) instead of TPM with Aβ1-42 monomer and Thioflavin T.

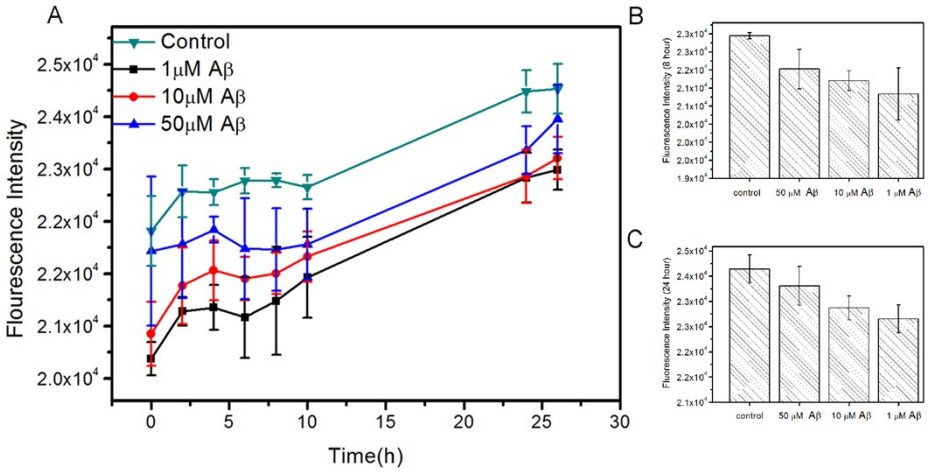

Figure S1. TPM reduced the aggregation of different concentrations of Aβ1-42.

A) 50 μM TPM could inhibit the agglomeration of Aβ aggregations, compared with control group in which there is 50 μM Aβ with no TPM. And the aggregation level is higher when the concentration increases. B) Aβ aggregates in a dose-dependent way after shock incubating for 8 hours at 37 °C. C) Aβ aggregates in a dose-dependent way after shock incubating for 24 hours at 37 °C.