**Supporting information** 

## Enhanced two-photon fluorescence and fluorescence imaging of a novel probe for calcium ion by self-assembly with a conjugated polymer

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Fig. S1. The fluorescence spectra of PCBMB-BAPTAVP with the different concentrations at the excitation wavelength 800 nm. Probe: BAPTAVP; PB: PCBMB: BAPTAVP =1:1; PB-1: 5×10<sup>-4</sup> mol/L; PB -2, 1×10<sup>-4</sup> mol/L; PB -3: 5×10<sup>-5</sup> mol/L; PB -4: 1×10<sup>-5</sup> mol/L.



Fig. S2. The <sup>1</sup>H NMR spectra of BAPTAVP(A), BAPTAVP in the presence of acetylcholin esterase(B) and BAPTAVP in the presence of acetylcholin esterase and Ca<sup>2+</sup>(C) in CDCl<sub>3</sub>.