

## Supporting Information

for

### A charge transfer-type pH responsive fluorescent probe and its intracellular application

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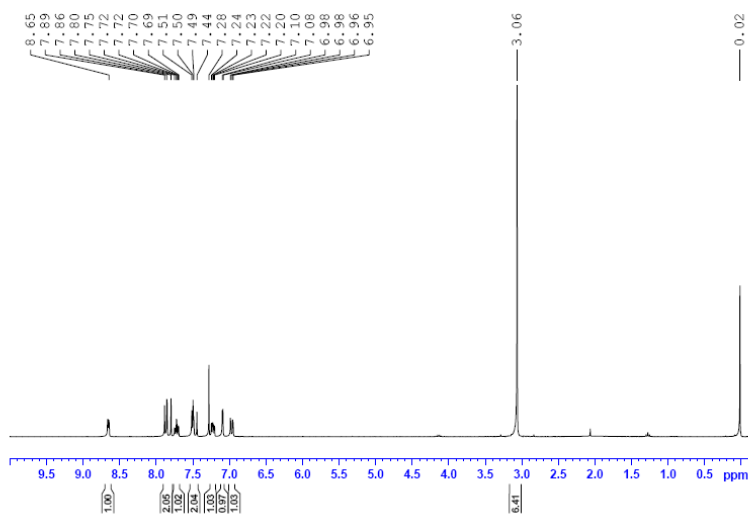


Figure S1 The <sup>1</sup>H NMR spectrum of BTP in CDCl<sub>3</sub>.

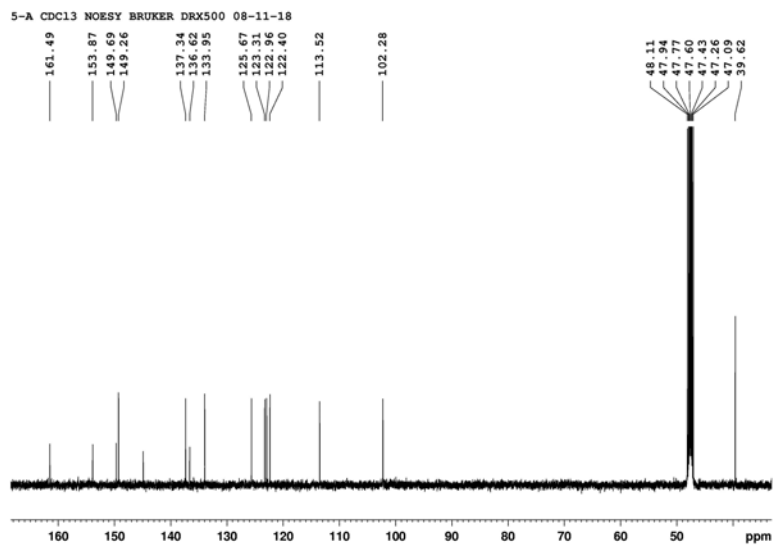


Figure S2 The <sup>13</sup>C NMR spectrum of **BTP** in CDCl<sub>3</sub>.

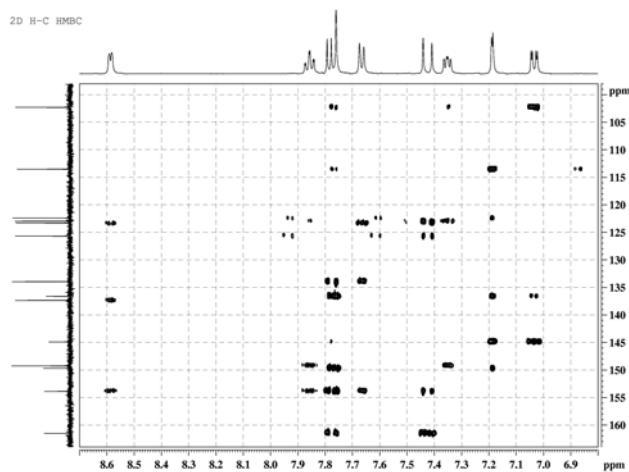


Figure S3. The 2D H-C HMBC spectrum of **BTP** in CD<sub>3</sub>OD.

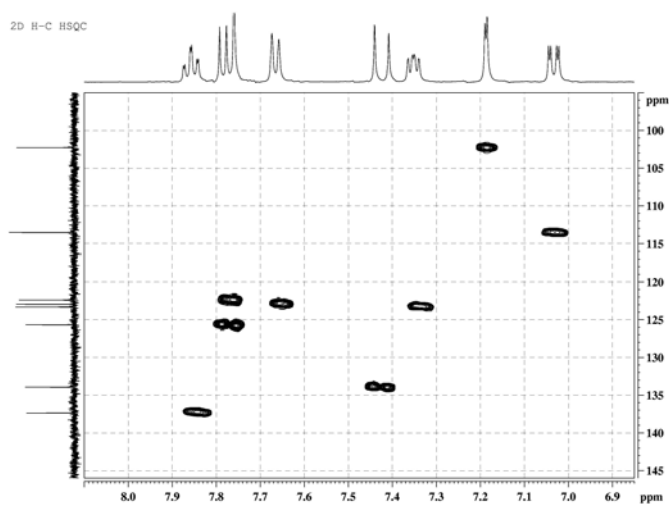


Figure S4. The 2D H-C HMBC spectrum of **BTP** in CD<sub>3</sub>OD.

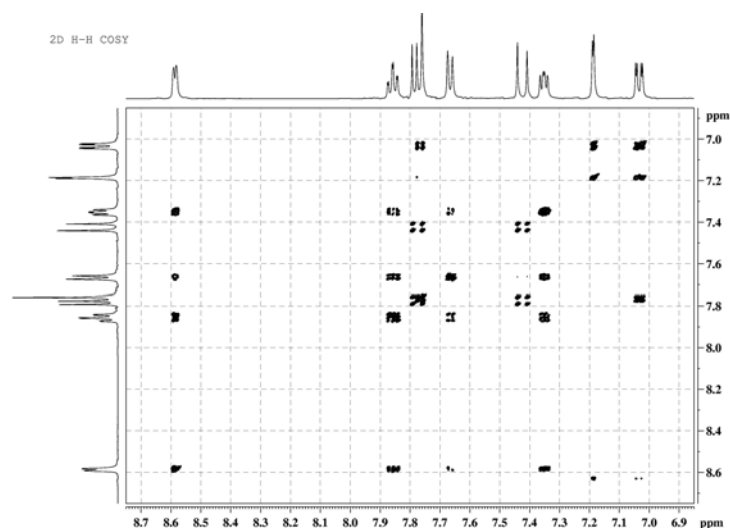


Figure S5. The 2D H-H COSY spectrum of **BTP** in CD<sub>3</sub>OD.

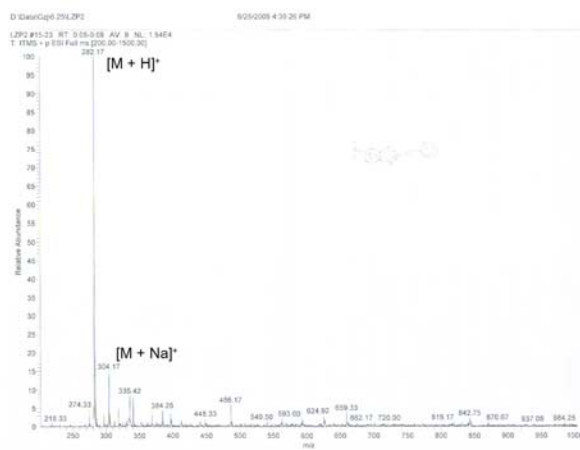


Figure S6. The ESI-MS spectrum of **BTP**.

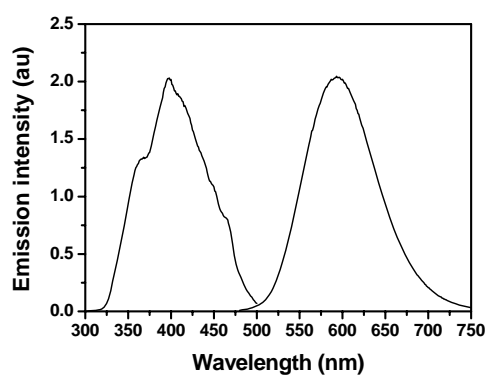
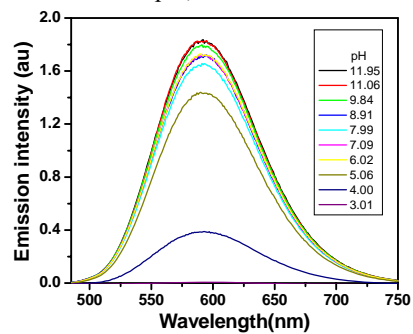
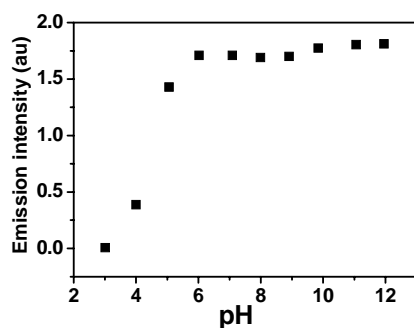


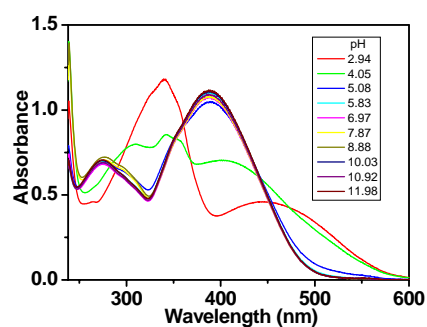
Figure S7. Excitation and emission spectrum of **BTP** ( $5 \times 10^{-6}$  M) in aqueous solution (MeOH/water = 1:99, v/v).



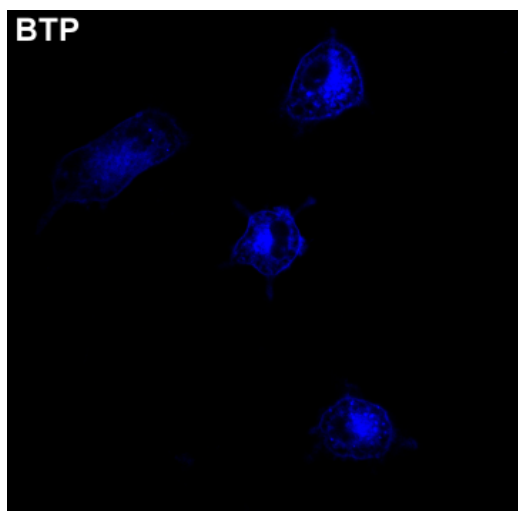
**Figure S8.** Emission spectra of **BTP** ( $5 \times 10^{-6}$  M) in aqueous solutions (MeOH/water = 1:99, v/v) with different pH values.



**Figure S9.** Relative fluorescence intensity at 596 nm versus pH titration curve for **BTP** ( $5 \times 10^{-6}$  M),  $\lambda_{\text{ex}} = 397$  nm.



**Figure S10.** Absorption spectra of **BTP** ( $5 \times 10^{-6}$  M) in aqueous solutions (MeOH/water = 1:99, v/v) with different pH values.



**Figure S11.** Confocal fluorescence image of macrophage cells labeled with BTP (10  $\mu$ M, PBS solution) at 37 °C for 10 min.