

Supporting Information

Ratiometric emission NIR-fluorescent probe for detection of lysosomal pH in living cells and *in vivo*

Weifen Niu^{*†}, Juan Jia[†], Junkai Li, Chao Zhang and Keming Yun*

School of Forensic Medicine, Shanxi Medical University, Taiyuan 030001, P. R. China.

E-mail: niuweifen_2000@163.com; yunkeming5142@163.com

Contents

Supplementary Figures

Fig. S1 ^1H NMR titration spectra of CzQl before and after adding H^+ .

Fig. S2 Changes in fluorescence emission ratio ($F_{530 \text{ nm}}/F_{637 \text{ nm}}$) for CzQl between pH 7.0 and 2.2.

Fig. S3 Changes in fluorescence emission ratio ($F_{530 \text{ nm}}/F_{637 \text{ nm}}$) for CzQl with times at different pH.

Fig. S4 Cell cytotoxic effect of CzQl on B16-F10 cells.

Fig. S5 ^1H NMR spectra of CzQl.

Fig. S6 ^{13}C NMR spectra of CzQl.

Fig. S7 MALDI-TOF MS spectra of CzQl.

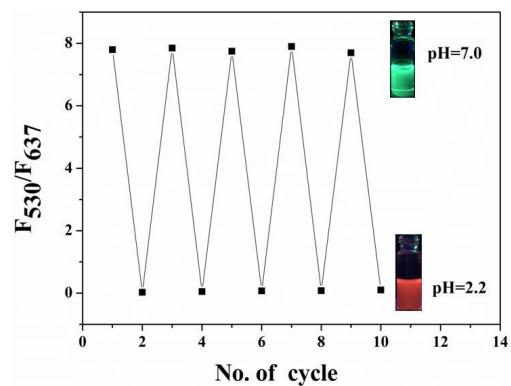
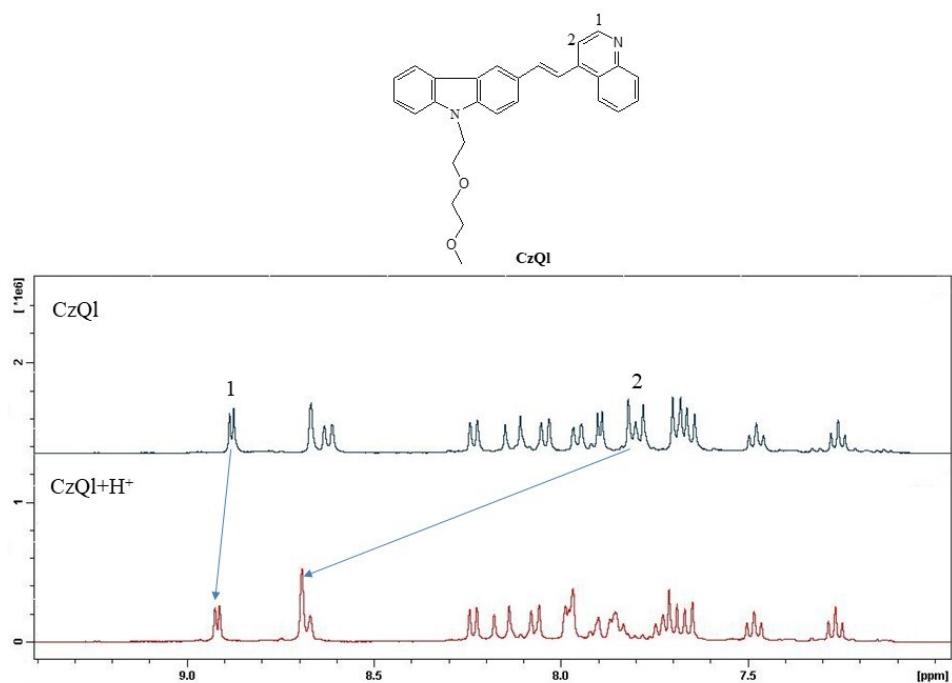


Fig. S2 Changes in fluorescence emission ratio ($F_{530\text{ nm}}/F_{637\text{ nm}}$) for CzQI between pH 7.0 and 2.2 ($\lambda_{\text{ex}} = 415\text{ nm}$).

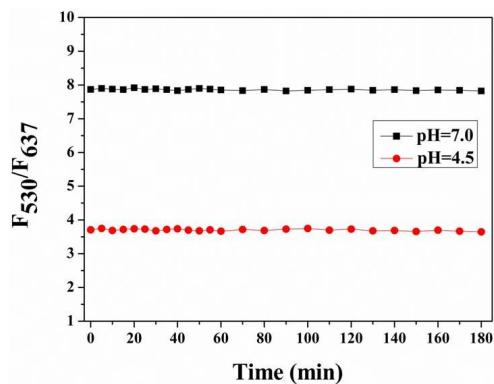


Fig. S3 Changes in fluorescence emission ratio ($F_{530 \text{ nm}}/F_{637 \text{ nm}}$) for CzQI with times at different pH under continuous irradiation by the 415nm light source. The excitation and emission bandwidths were both set at 1.5 nm.

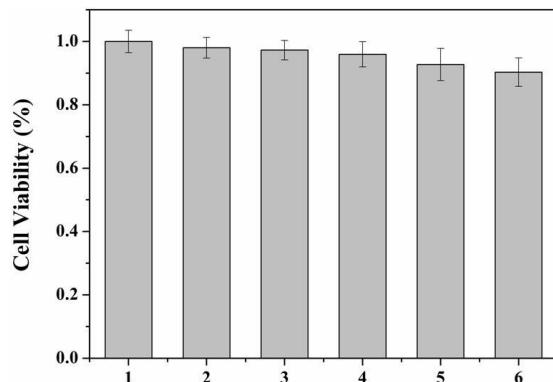


Fig. S4 Cell cytotoxic effect of CzQI on B16-F10 cells. 1, control; 2, 0.1 μM ; 3, 1 μM ; 4, 10 μM ; 5, 20 μM ; 6, 30 μM . Data are expressed as mean values standard error of the mean of three independent experiments.

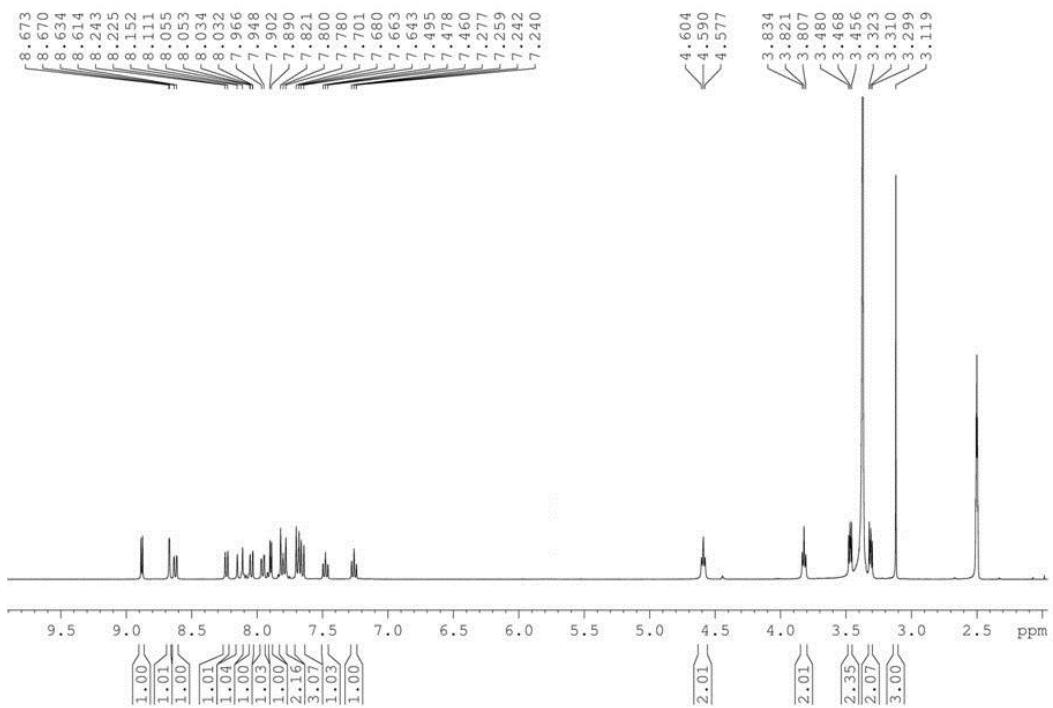


Fig. S5 ^1H NMR spectra of CzQ1.

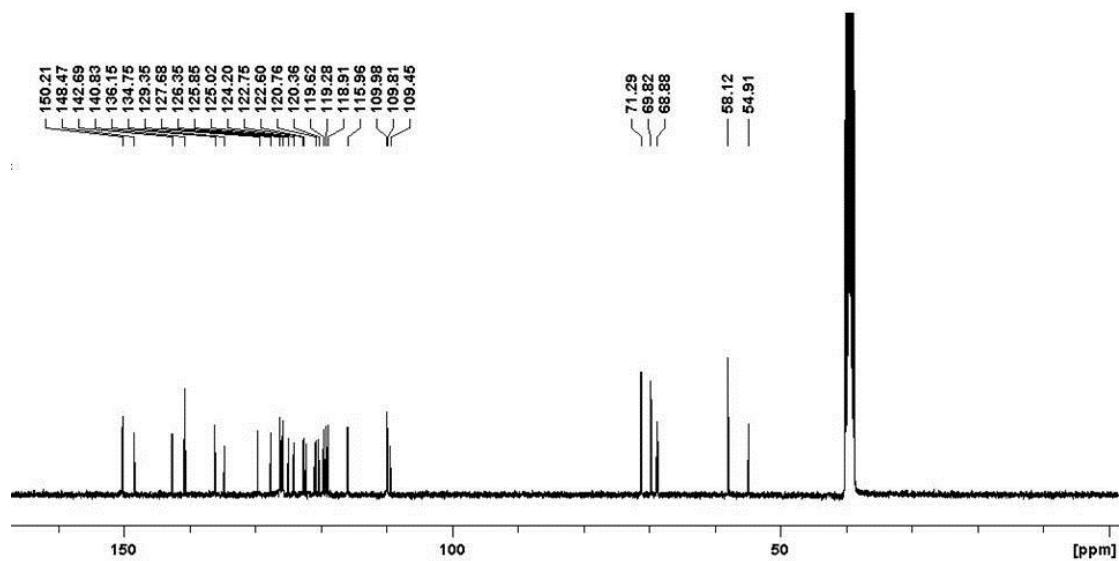


Fig. S6 ^{13}C NMR spectra of CzQ1.

HONG KONG BAPTIST UNIVERSITY, DEPARTMENT OF CHEMISTRY (MALDI-TOF)

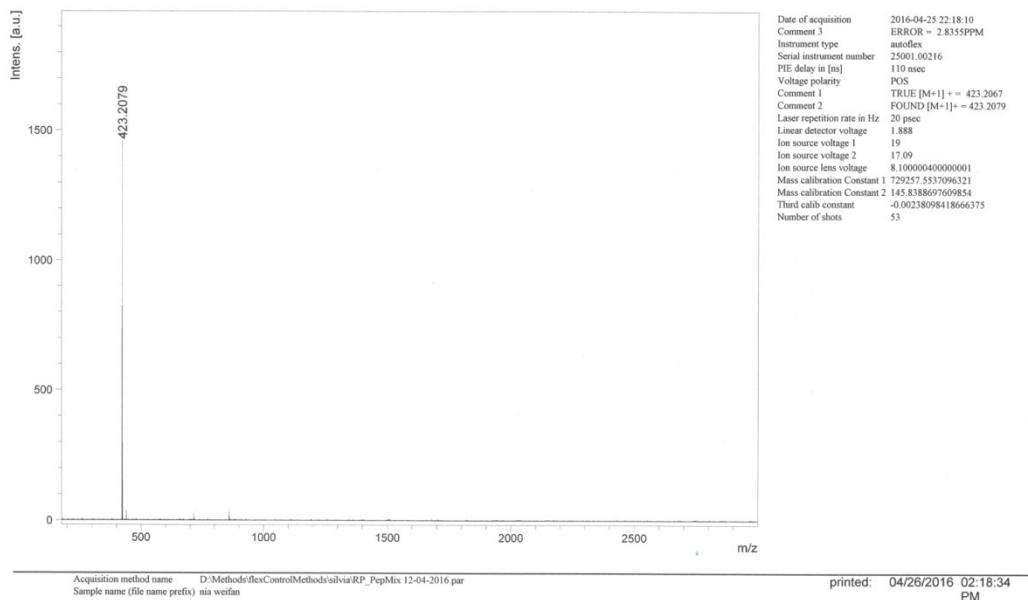


Fig. S7 MALDI-TOF MS spectra of CzQl.