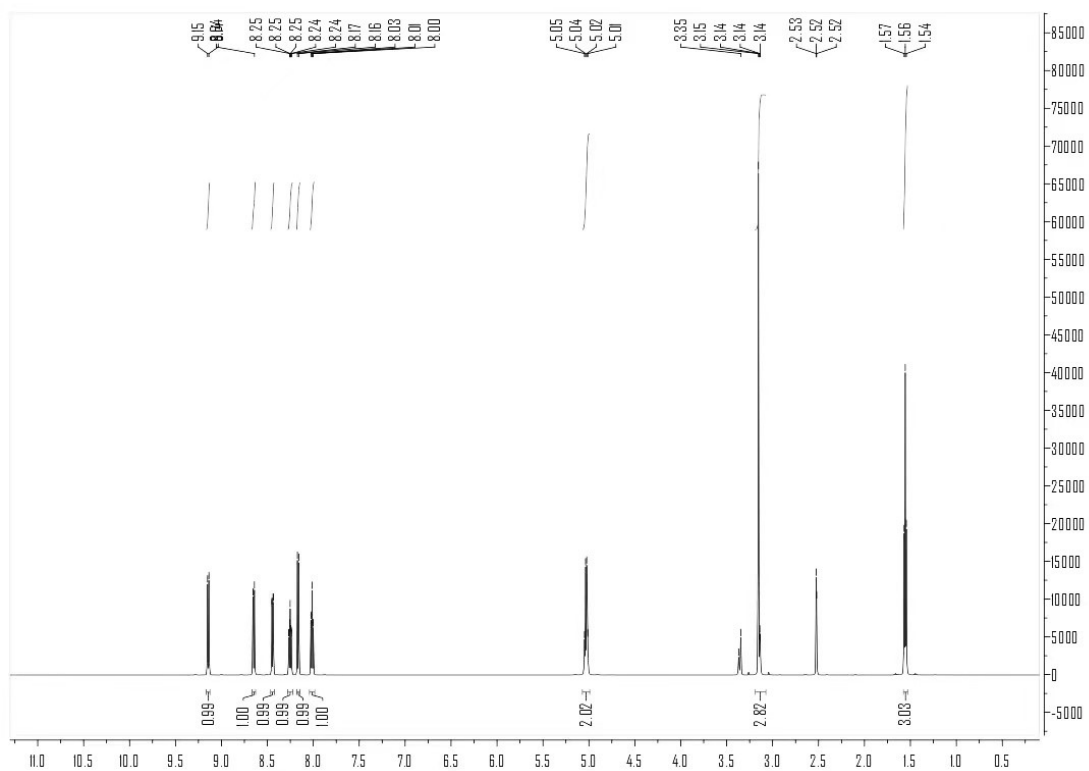
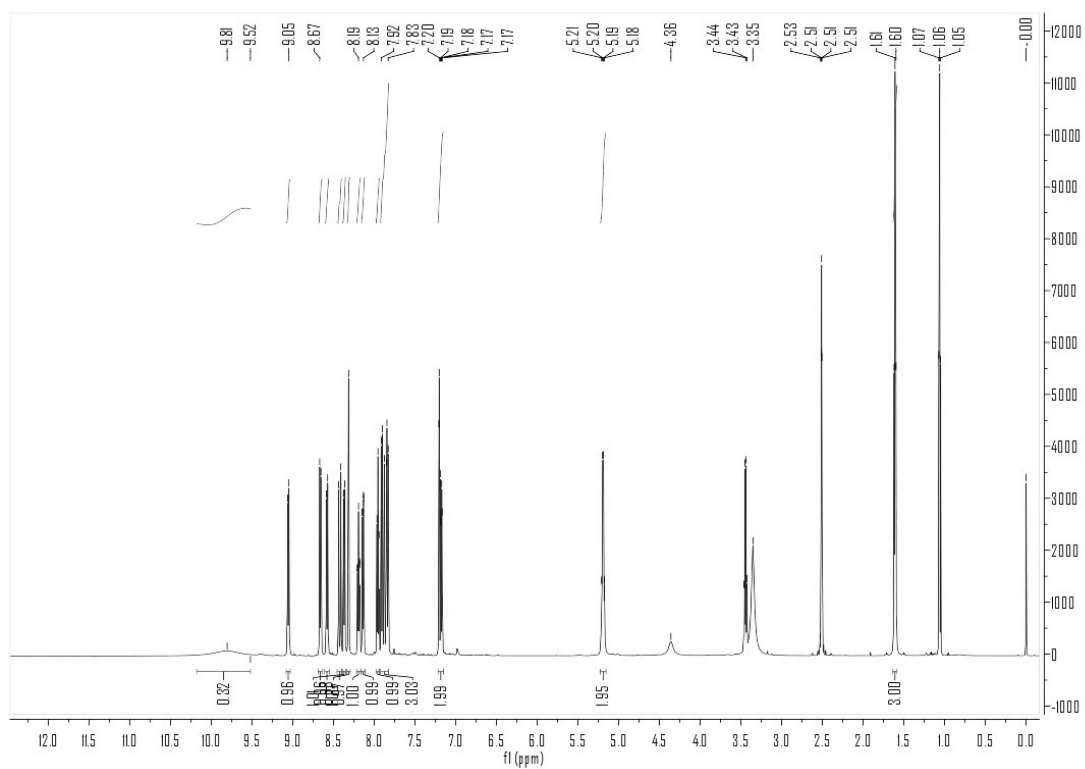


## Supporting Information

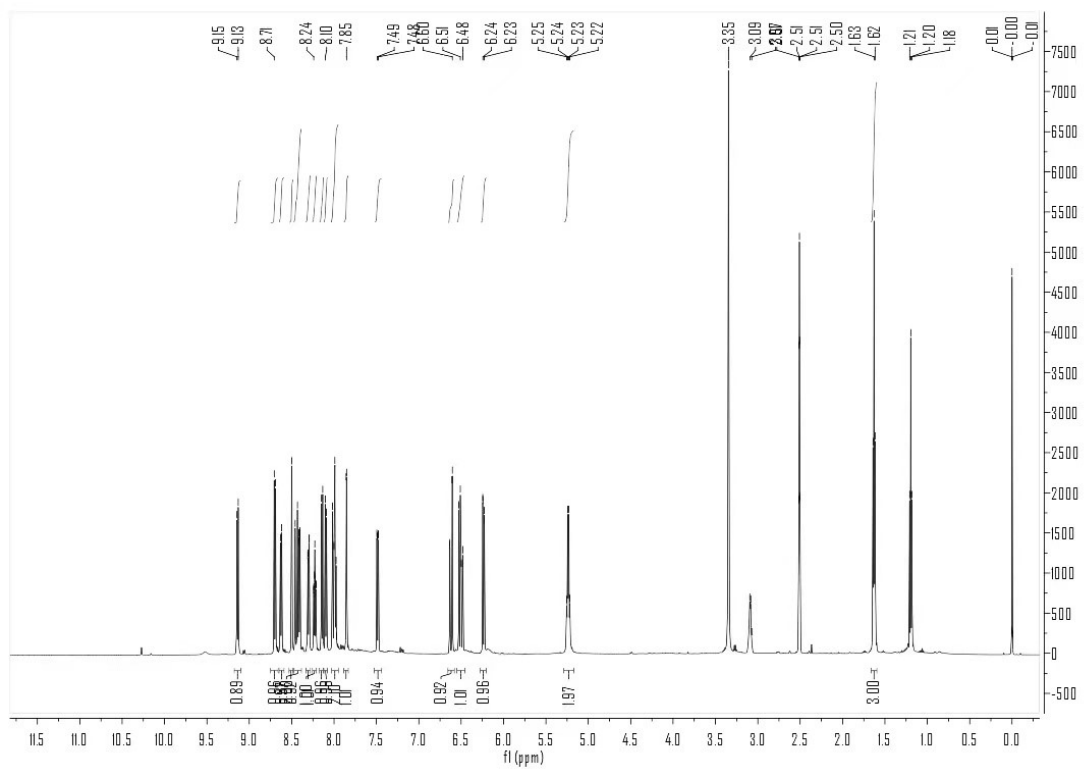
### A novel quinoline-based fluorescent probe for Real-time monitoring of Cys in Glioma



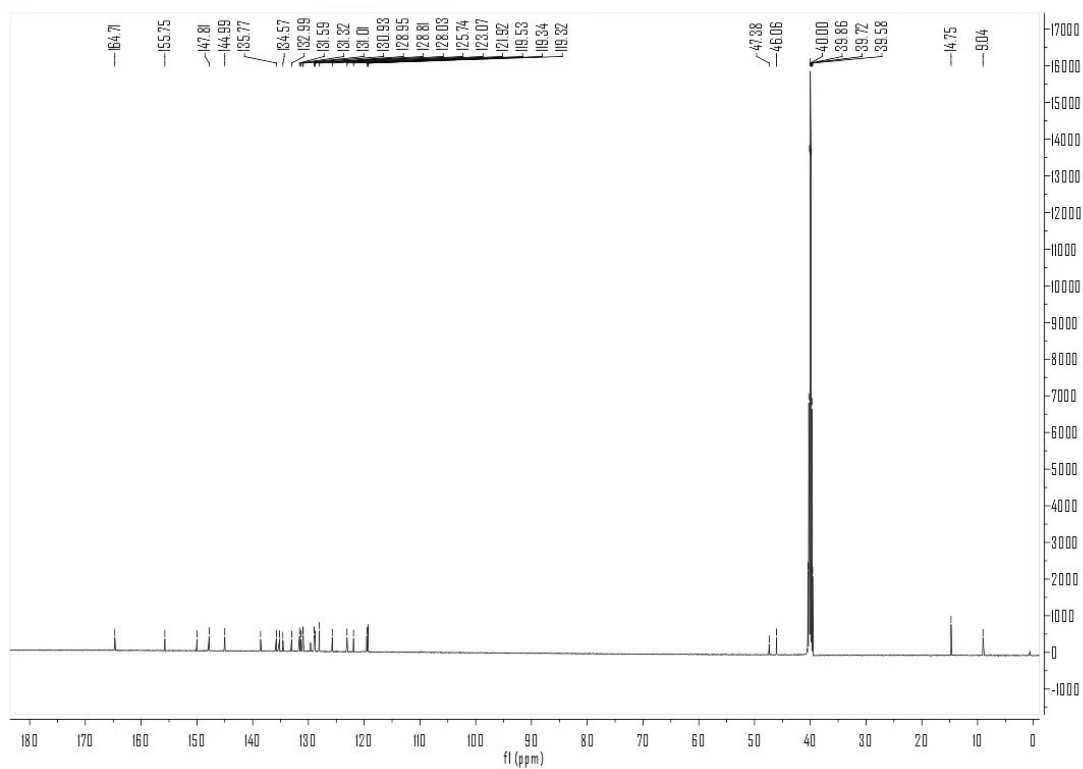
**Fig.S1.** The  $^1\text{H}$  NMR of compound **2** (600 MHz, in  $\text{DMSO-}d_6$ ).



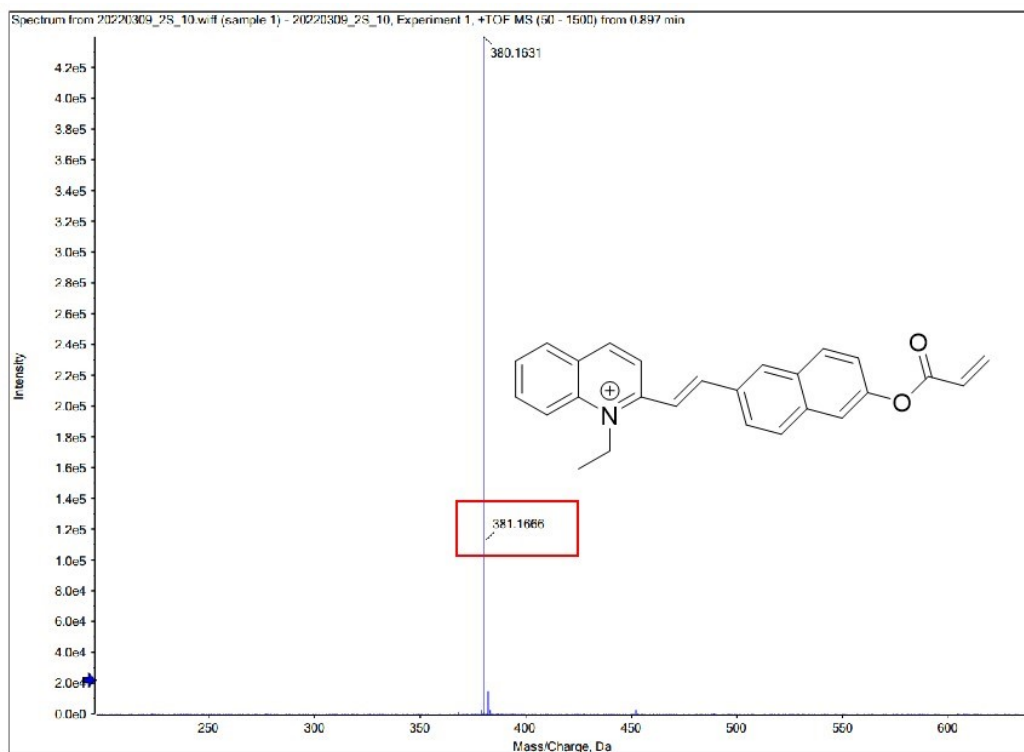
**Fig.S2.** The  $^1\text{H}$  NMR of **ZS-C1-OH** (600 MHz, in  $\text{DMSO-}d_6$ ).



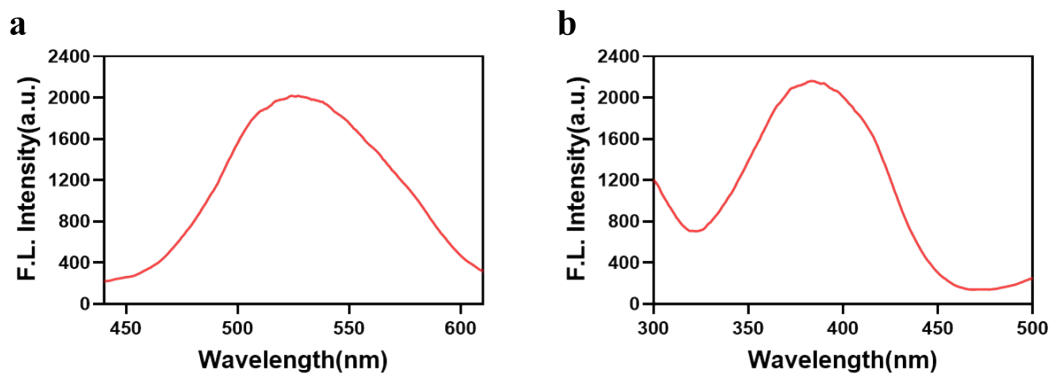
**Fig.S3.** The  $^1\text{H}$  NMR of **ZS-C1** (600 MHz, in  $\text{DMSO-}d_6$ ).



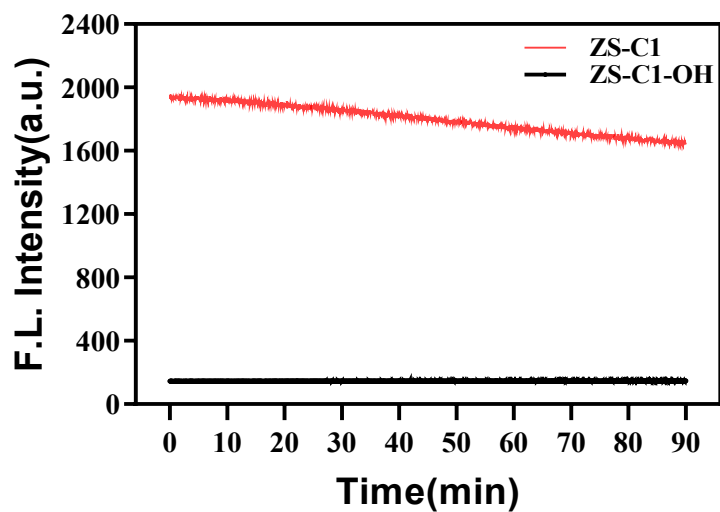
**Fig.S4.** The  $^{13}\text{C}$  NMR of **ZS-C1** (600 MHz, in  $\text{DMSO-}d_6$ ).



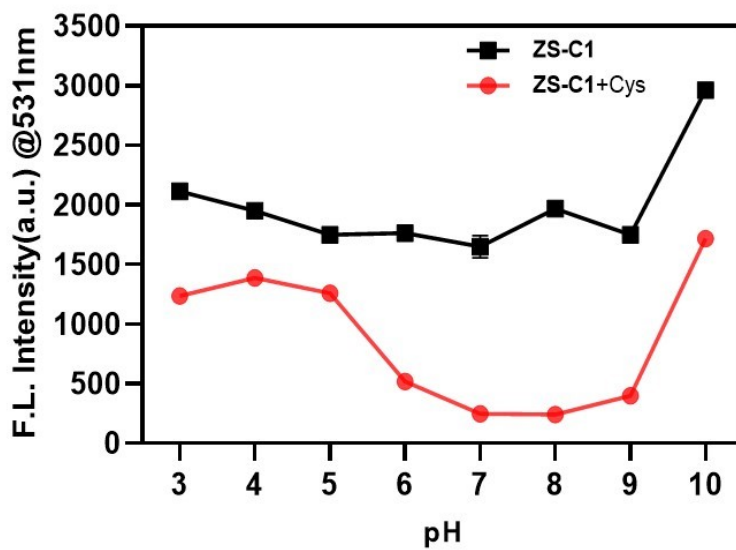
**Fig.S5.** HR Mass spectrum of **ZS-C1**. HRMS (ESI-TOF) Calcd for  $\text{C}_{26}\text{H}_{22}\text{NO}_2^+$   $[\text{M}+\text{H}]^+$ : 381.1666, found: 381.1666.



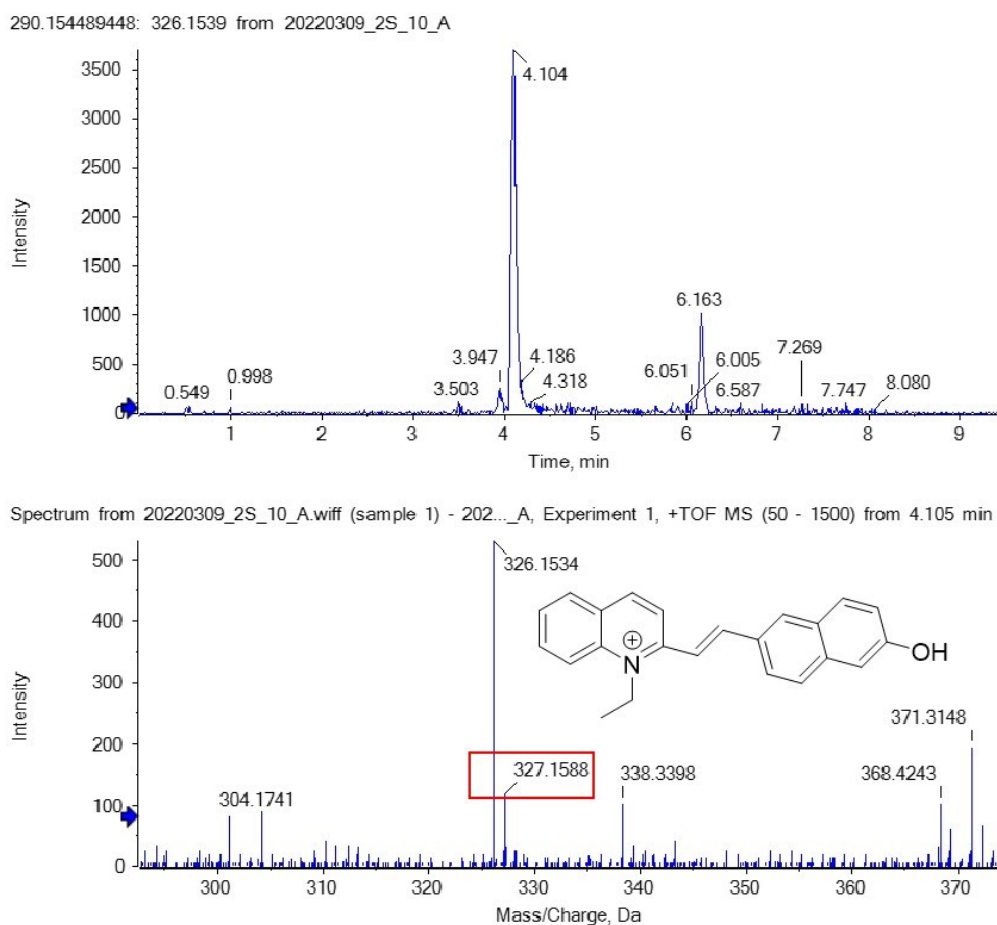
**Fig.S6.** Fluorescence spectra of ZS-C1 reacted with Cys in PBS (pH = 7.4). (a)  $\lambda_{ex}$ =380 nm; (b)  $\lambda_{ex}$ =531 nm



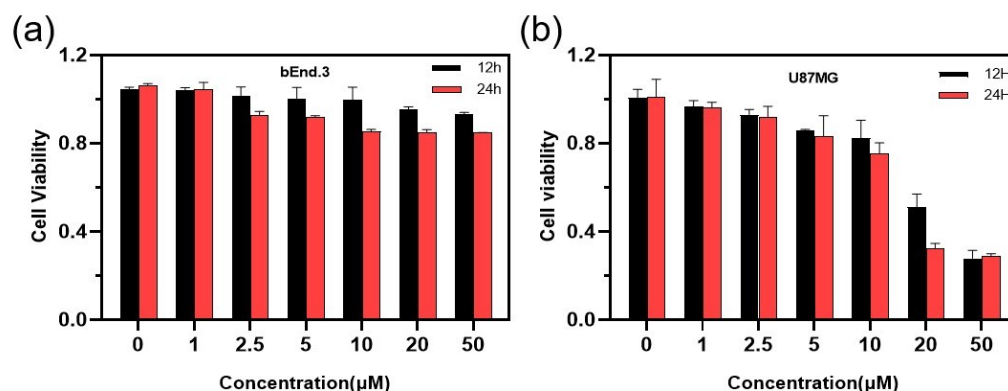
**Fig.S7.** The photostability of ZS-C1 and ZS-C1-OH within 90min



**Fig.S8.** Fluorescence intensity at 531 nm of **ZS-C1** (10  $\mu$ M) with Cys (300  $\mu$ M) in PBS buffer (10 mM, 1% DMSO, 1mM CTAB) with various pH conditions at 37  $^{\circ}$ C for 2h. The error bars were  $\pm$ SD (n=3).



**Fig.S9.** HR Mass spectrum of the composition of the reaction solution of **ZS-C1** with Cys. HRMS (ESI-TOF) Calcd for  $C_{23}H_{20}NO^+$   $[M+H]^+$ : 327.16, found: 327.1588.



**Fig.S10.** Cell viability of bEnd.3 and U87 in the presence of various concentrations of **ZS-C1**.