

Electronic Supplementary Information (ESI) for

A novel FRET-based fluorescent material for the selective detection of hydrogen sulfide (H₂S) in vivo

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Figure S1: UV-vis absorption spectra of **Flu-N₃** (5 μ M) upon the addition of H₂S (0-110 μ M) in MeCN: PBS (9:1 v/v, PBS buffer, pH 7.4) solution.

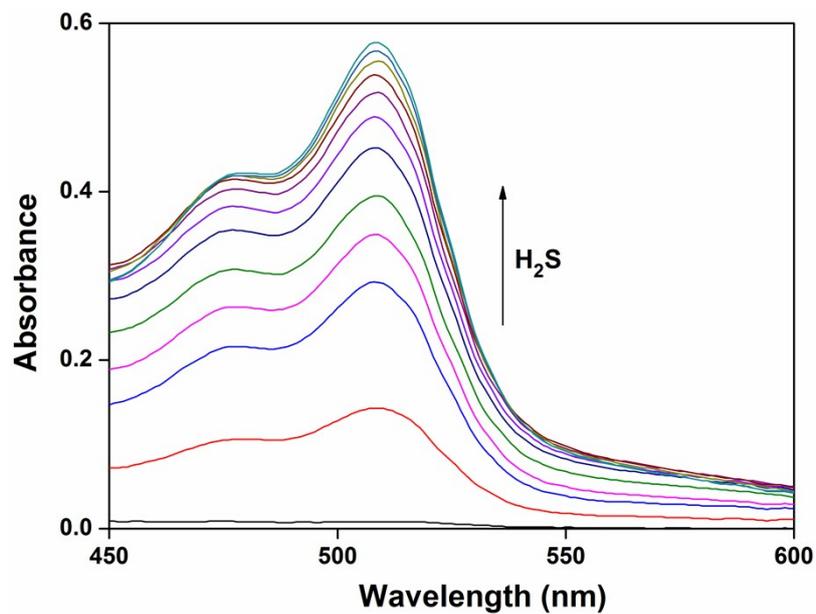


Figure S2: The ratio of emission intensities at 538nm of **Flu-N₃** (5 μ M) to various analytes .

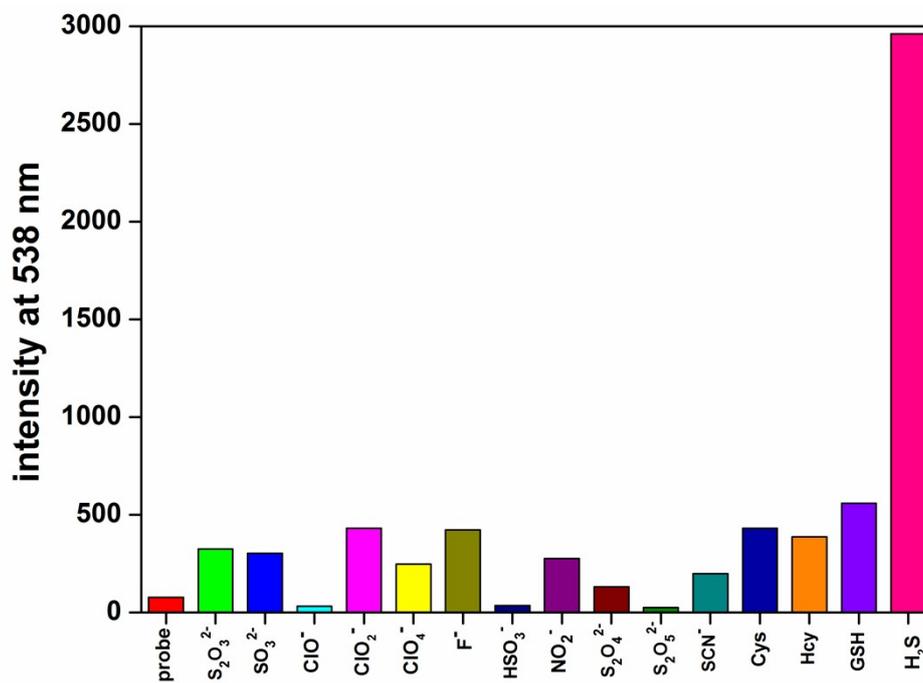
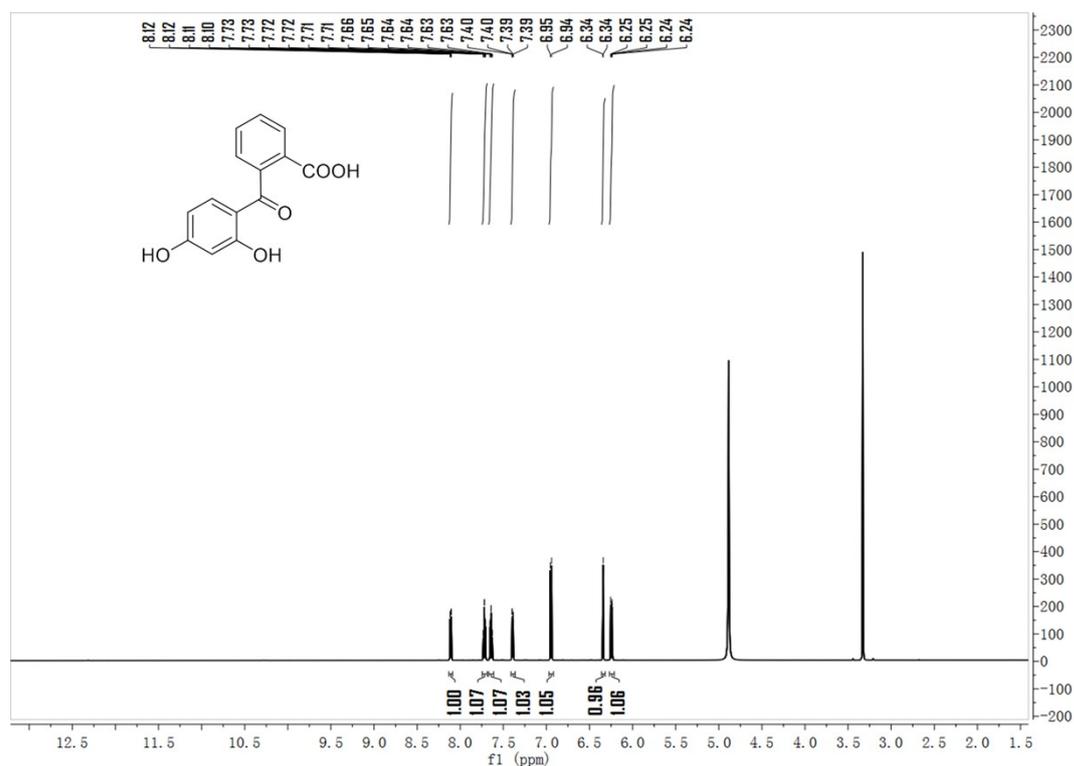
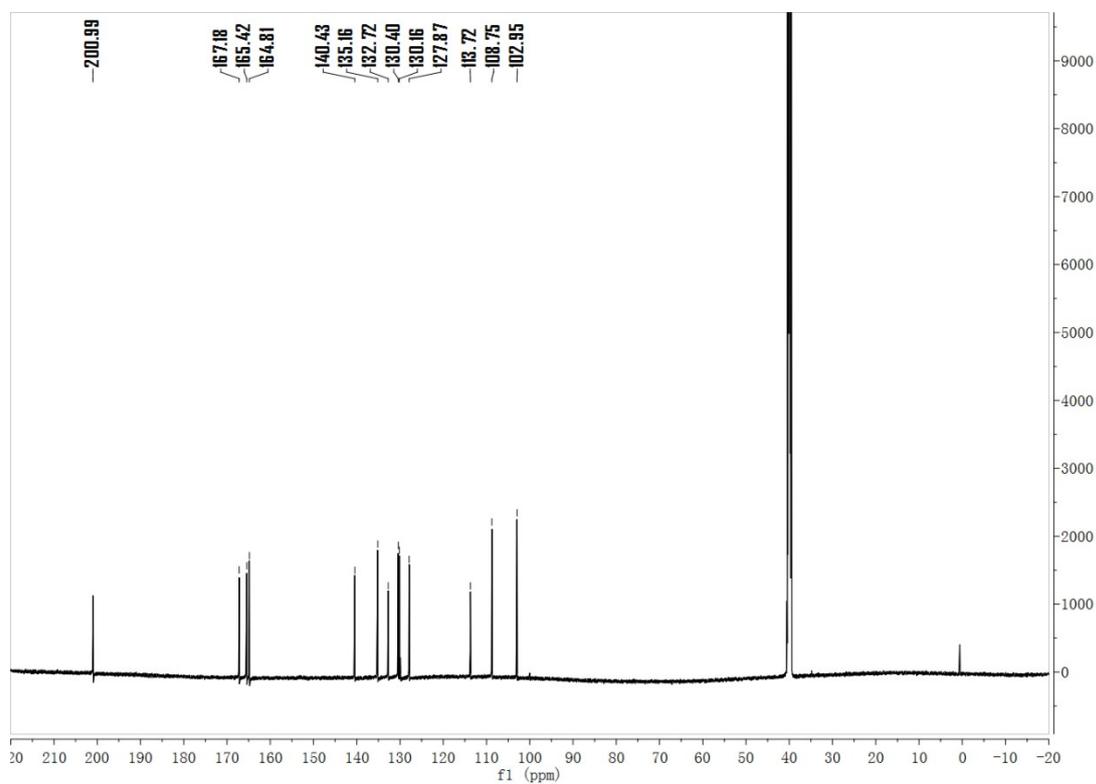


Figure S3: ^1H NMR and ^{13}C NMR of Compound 1.

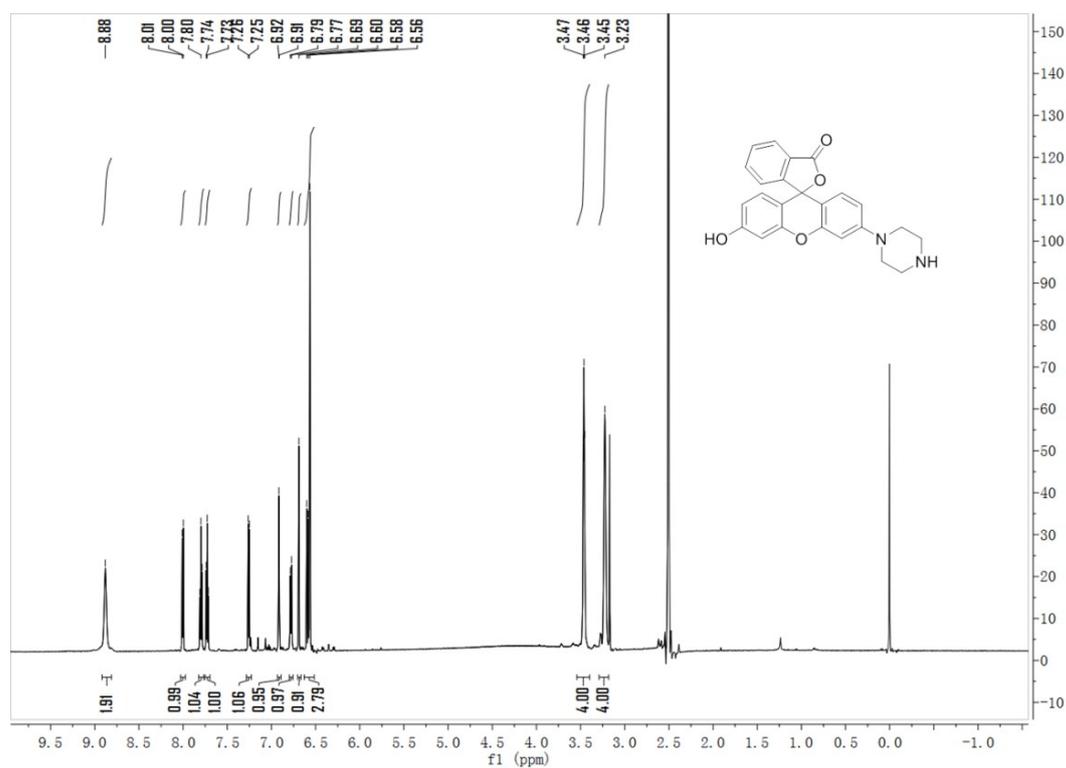


The ^1H NMR (600MHz) spectra of Compound 1 in MeOD.

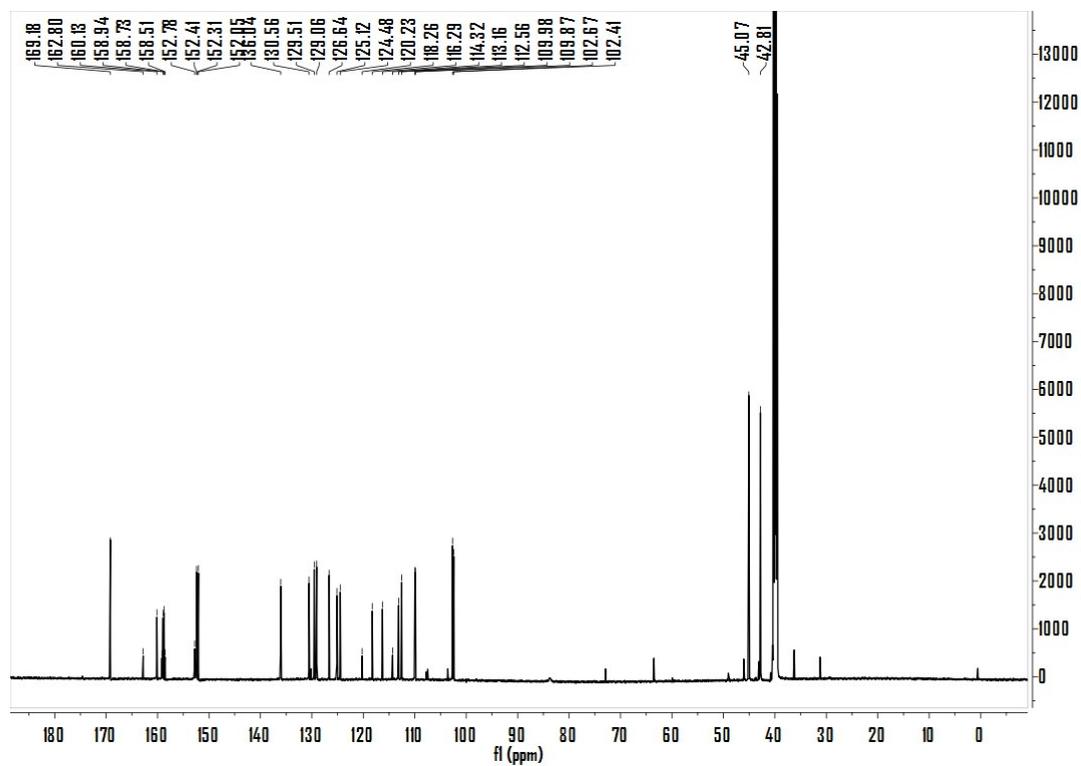


The ^{13}C NMR (150 MHz) spectra of Compound 1 in DMSO- d_6 .

Figure S4: ^1H NMR and ^{13}C NMR of Compound **2**.

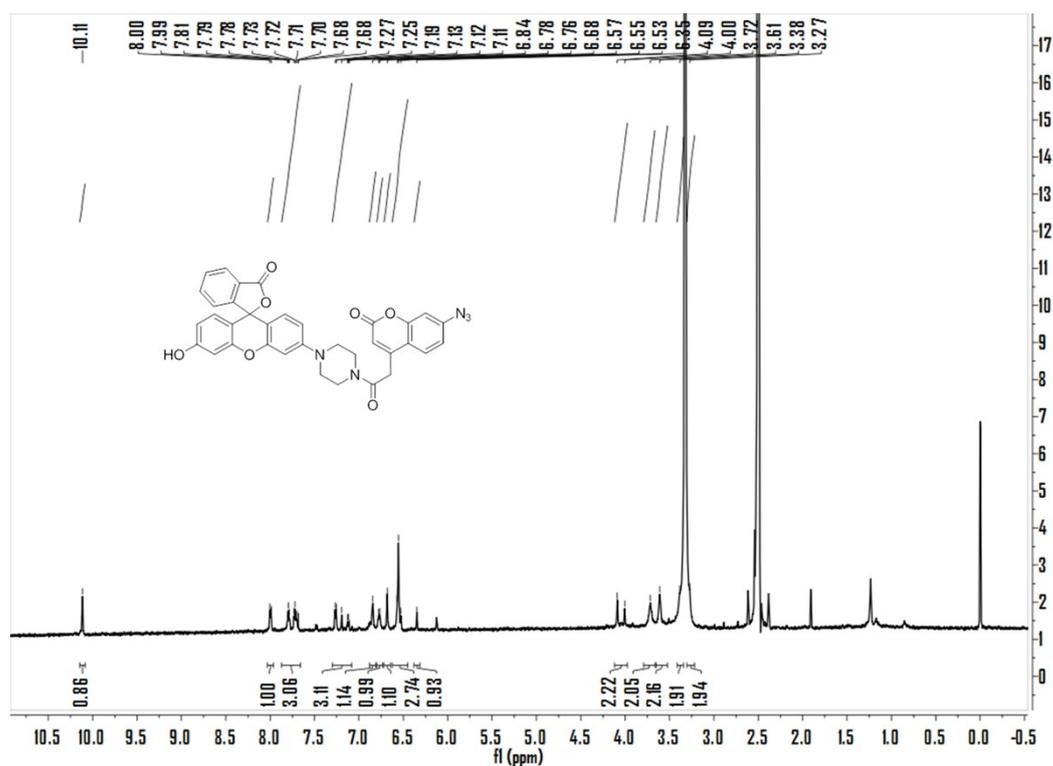


The ^1H NMR (600MHz) spectra of Compound **2** in DMSO-d_6 .

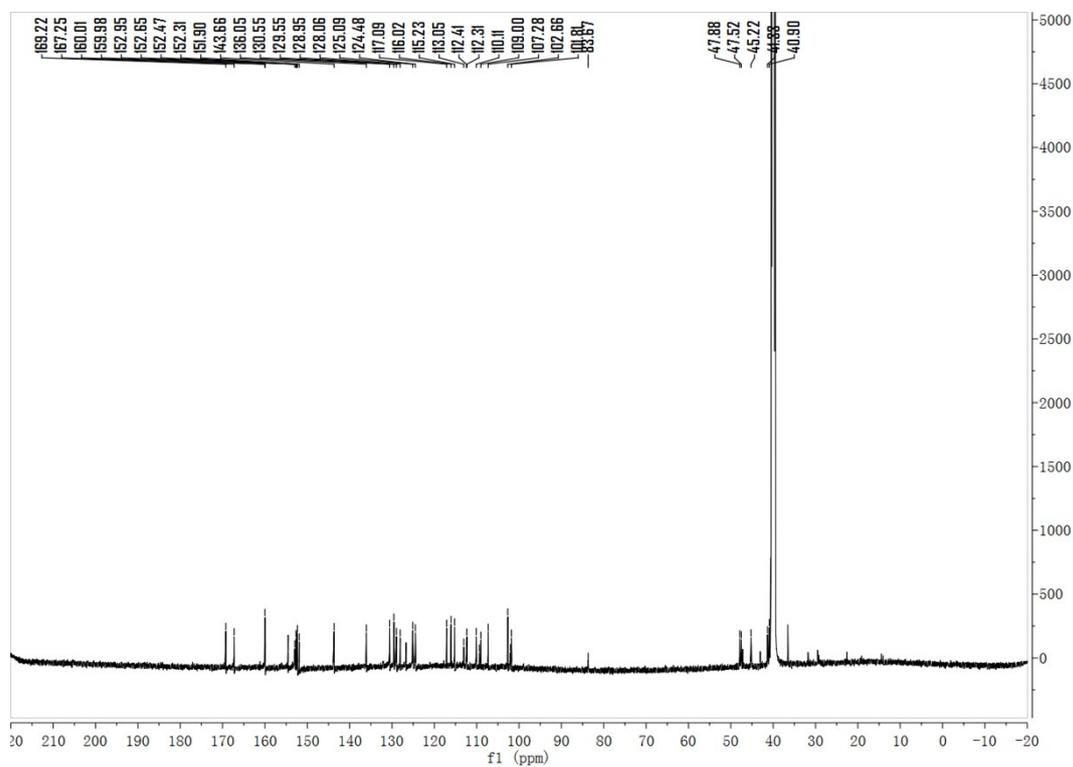


The ^{13}C NMR (150 MHz) spectra of Compound **2** in DMSO-d_6 .

Figure S5: ^1H NMR and ^{13}C NMR of Compound **Flu-N₃**.



The ^1H NMR (600MHz) spectra of Compound **Flu-N₃** in DMSO-d_6 .



The ^{13}C NMR (150 MHz) spectra of Compound **Flu-N₃** in DMSO-d_6 .

Figure S6: The ESI-MS of the probe.

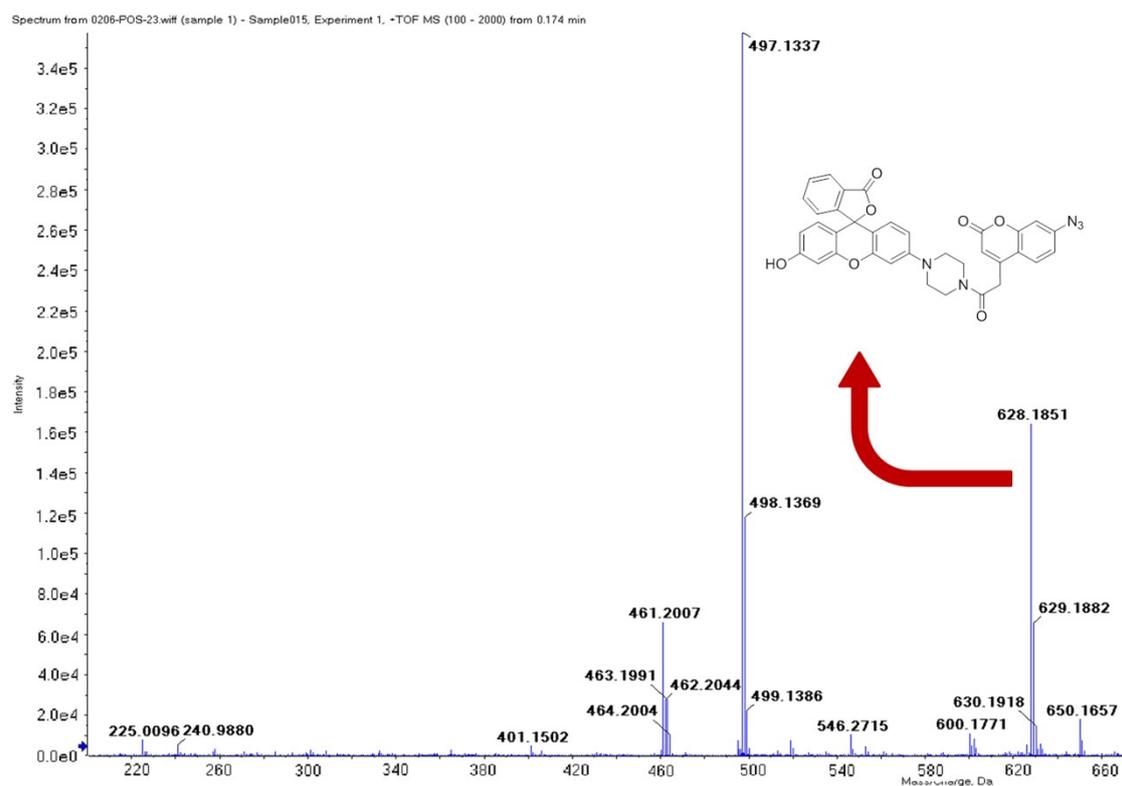


Figure S7: The ESI-MS of product obtained by reaction of probe and H_2S .

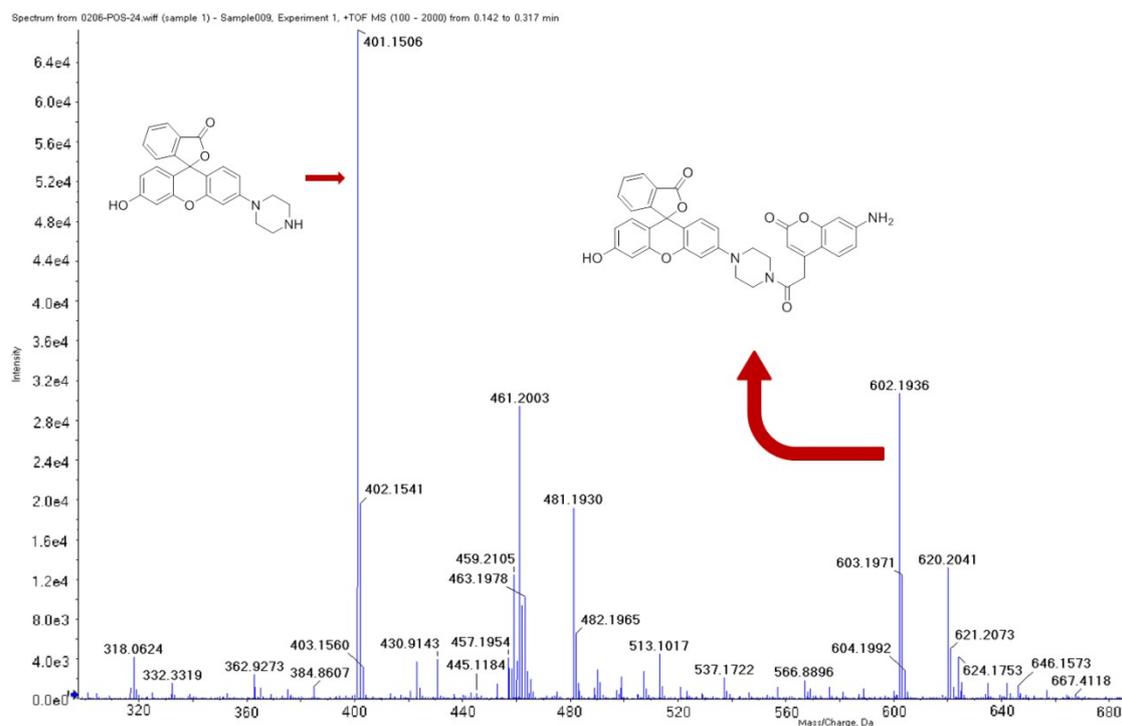


Figure S8: Cell viability estimated by CCK-8 assay with HepG-2 cells, which were cultured in the presence of 0–50 μM Flu- N_3 for 5 h and 10 h.

