

Supplementary Materials:

^1H NMRS, ^{13}C NMRS and HRMS of FAI.

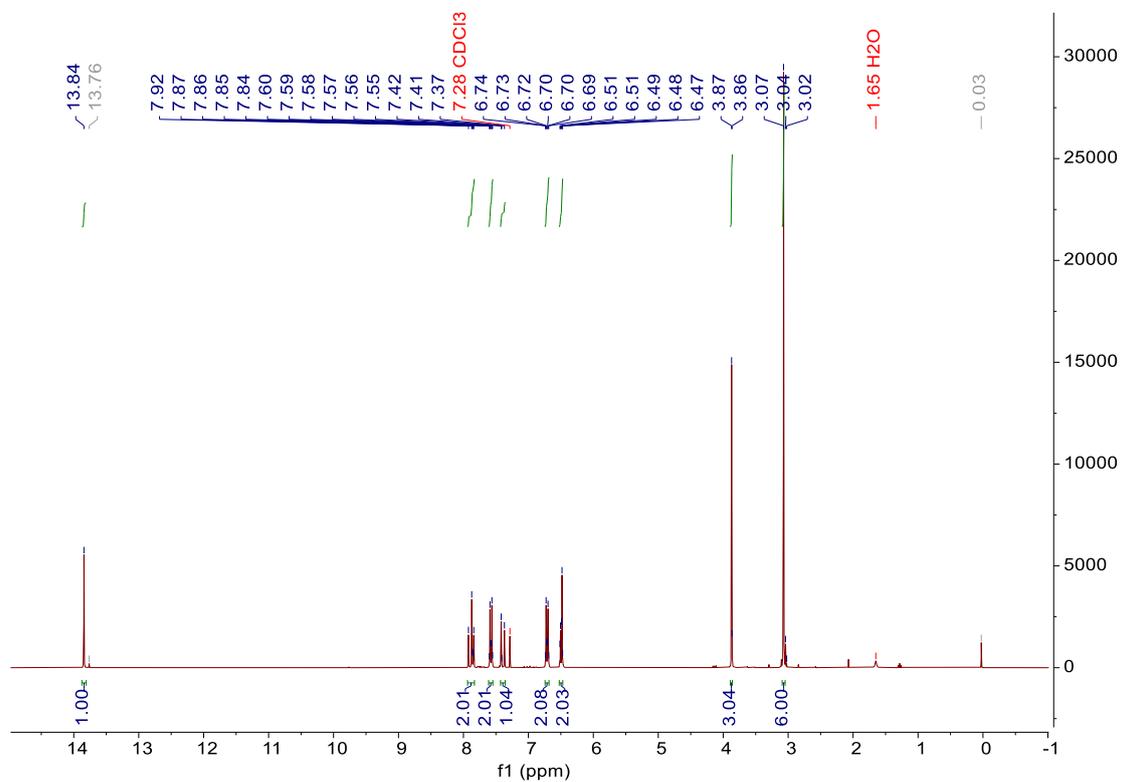


Figure S1. ^1H NMR spectrum (300 MHz, CDCl_3 , 298 K) of compound 3.

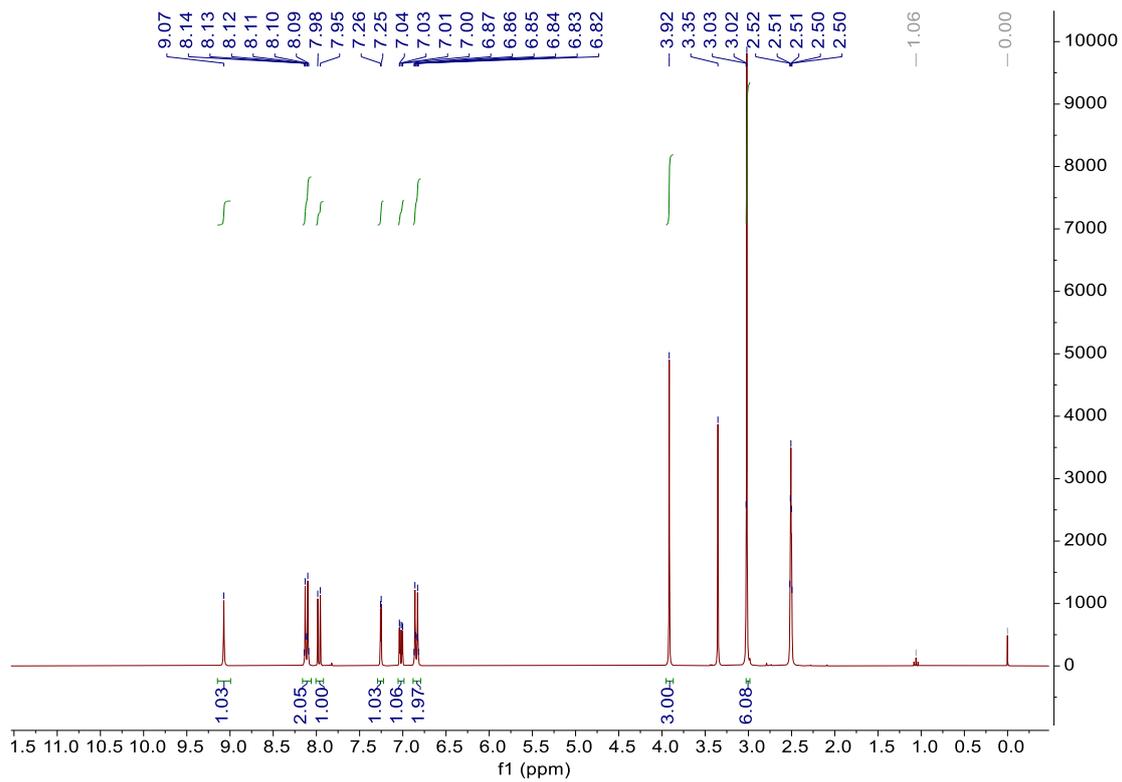


Figure S2. ^1H NMR spectrum (300 MHz, $\text{DMSO-}d_6$, 298 K) of compound 4.

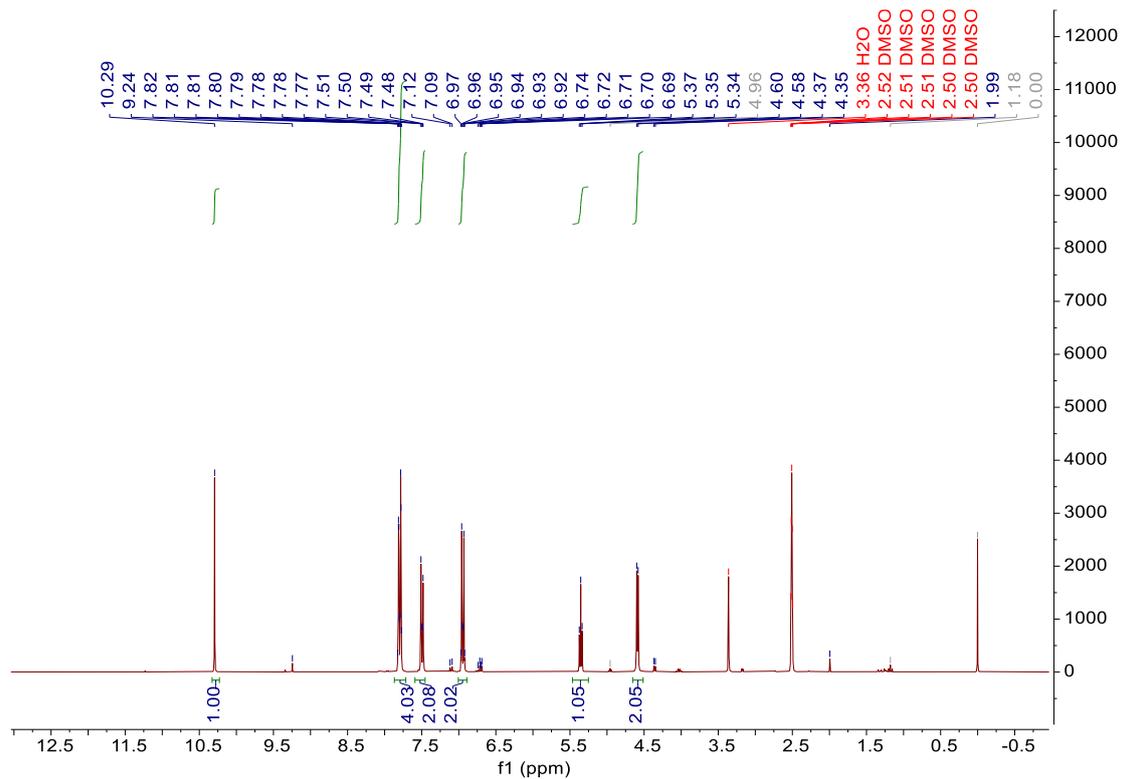


Figure S3. ^1H NMR spectrum (300 MHz, $\text{DMSO-}d_6$, 298 K) of compound 7.

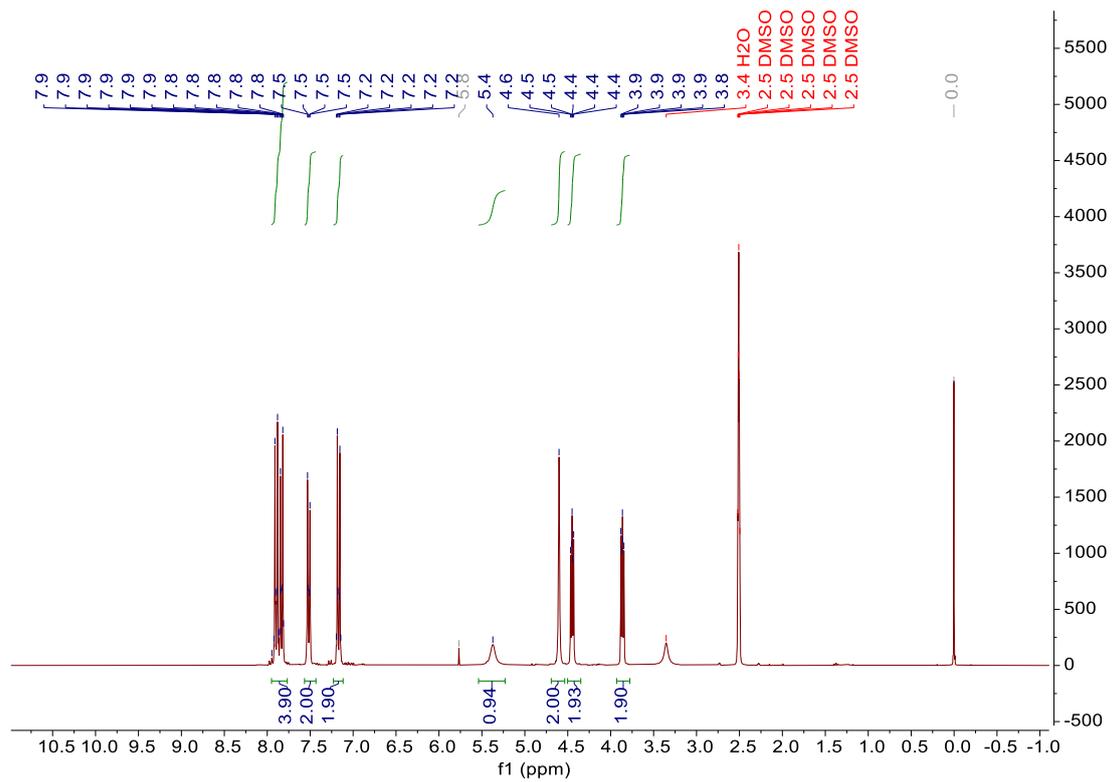


Figure S4. ^1H NMR spectrum (300 MHz, $\text{DMSO-}d_6$, 298 K) of compound 8.

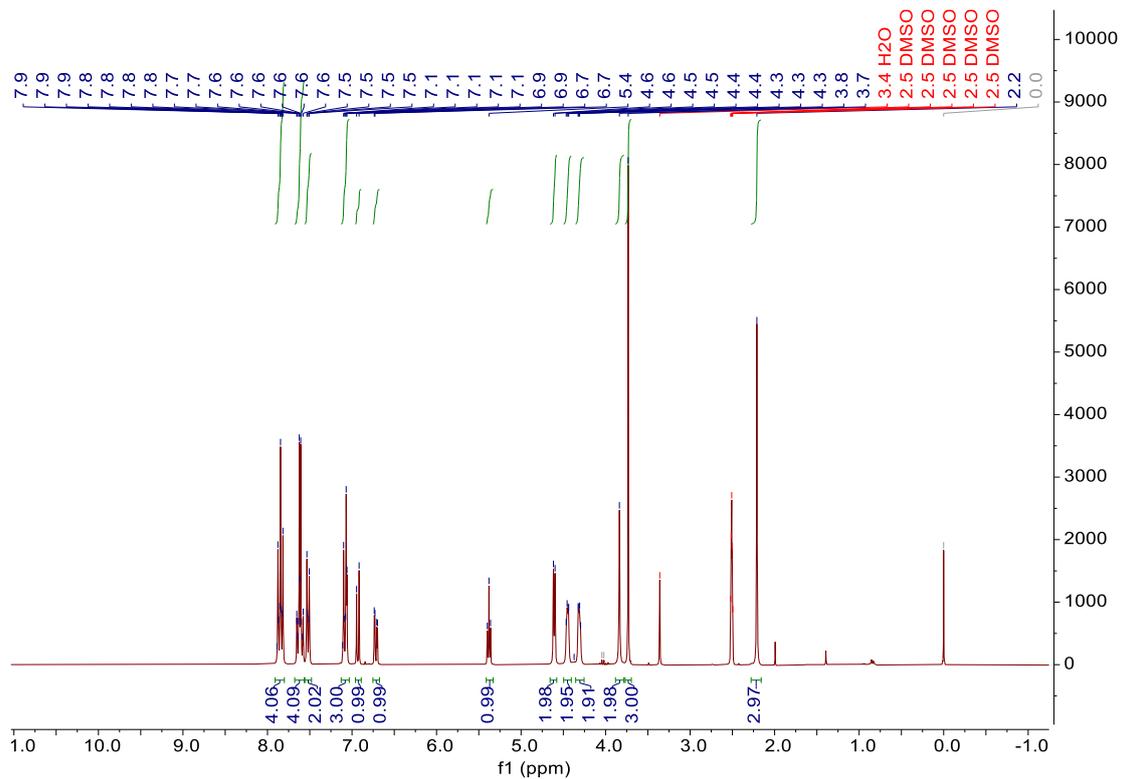


Figure S5. ^1H NMR spectrum (300 MHz, $\text{DMSO-}d_6$, 298 K) of compound 9.

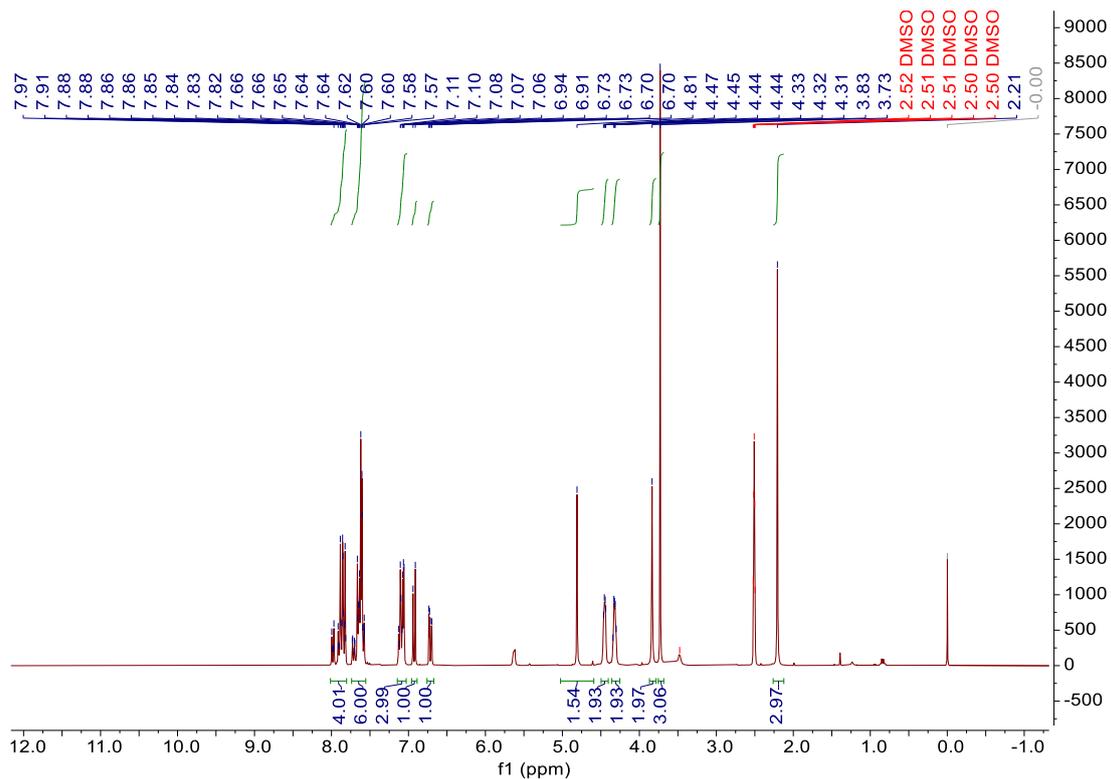


Figure S6. ^1H NMR spectrum (300 MHz, $\text{DMSO-}d_6$, 298 K) of compound 10.

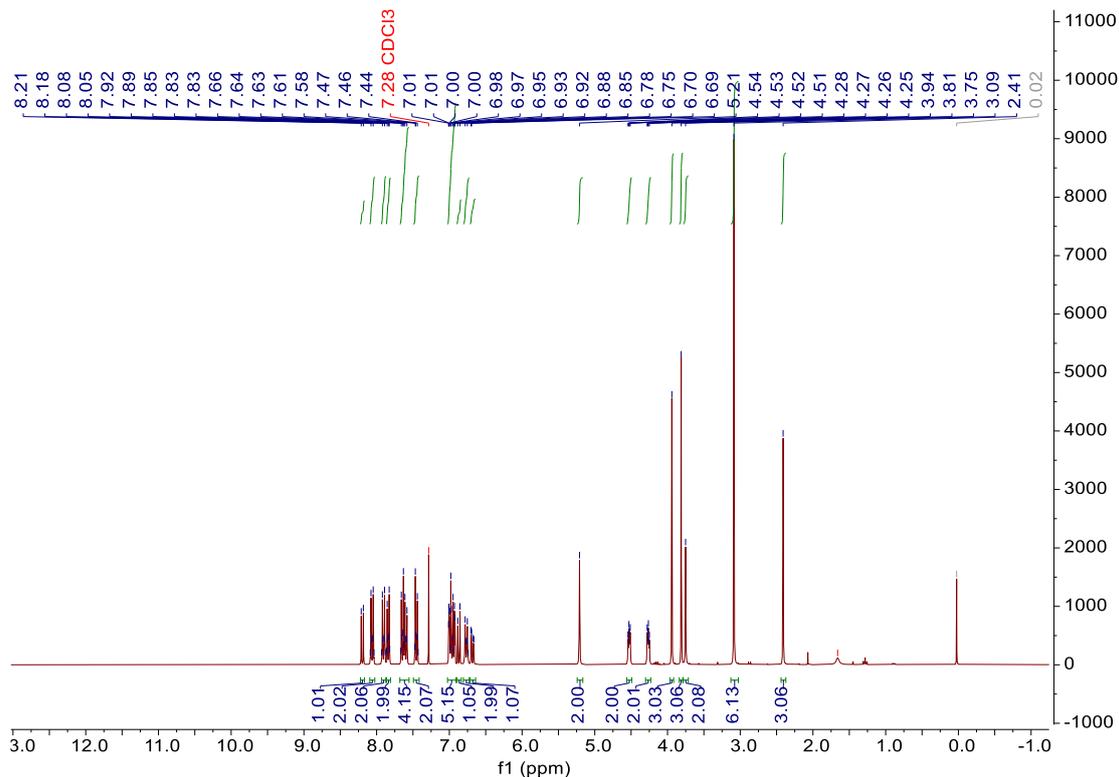


Figure S7. ^1H NMR spectrum (300 MHz, CDCl_3 , 298 K) of compound FAI.

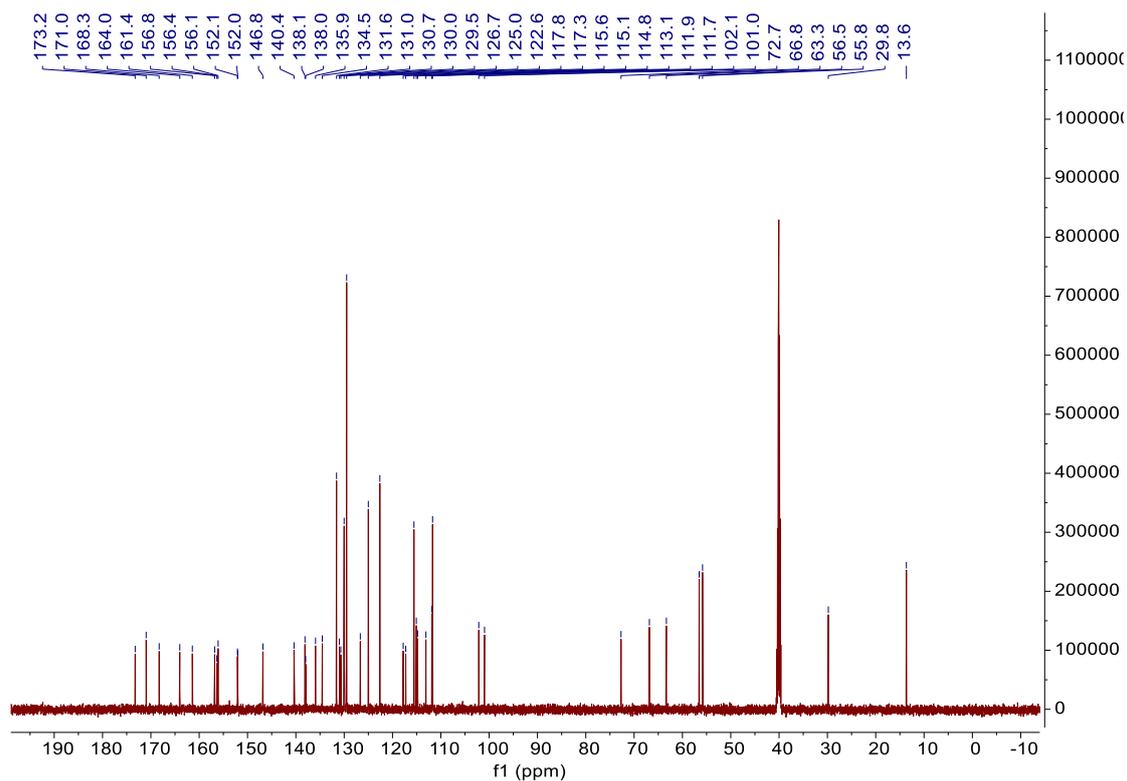


Figure S8. ^{13}C NMR spectrum (101 MHz, $\text{DMSO-}d_6$, 298 K) of compound **FAI**.

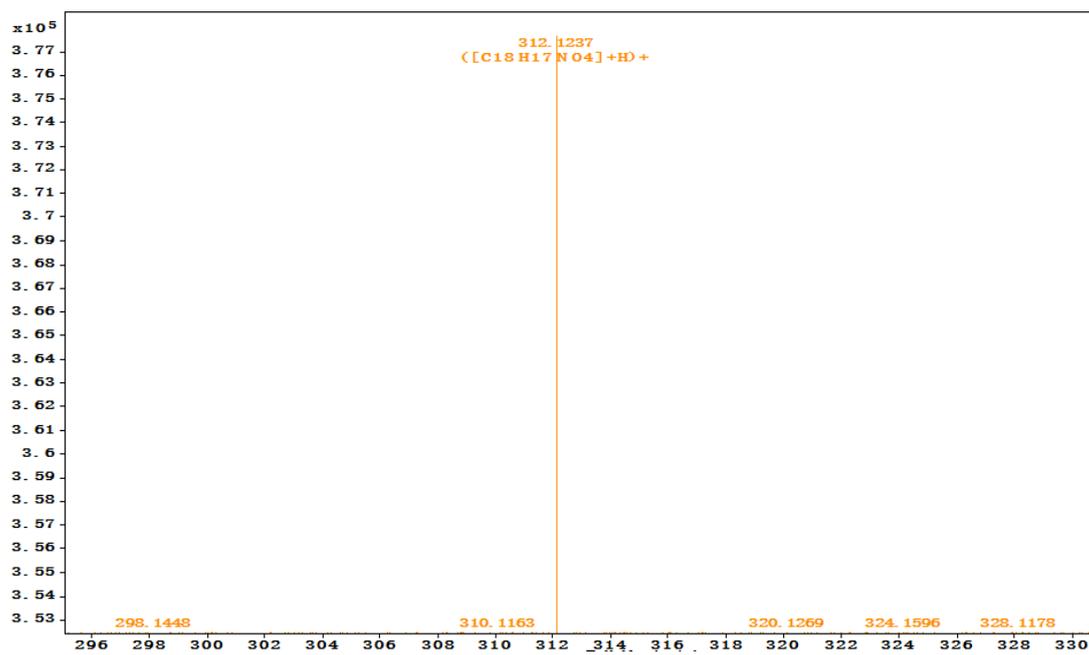


Figure S9. HRMS of compound **4**.

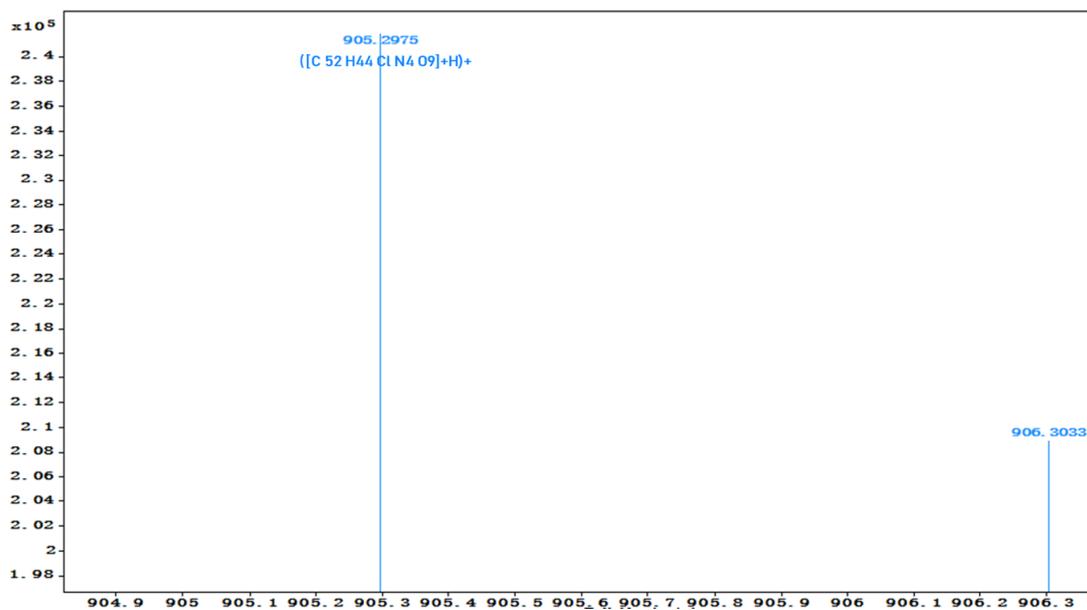


Figure S10. HRMS of compound FAI.

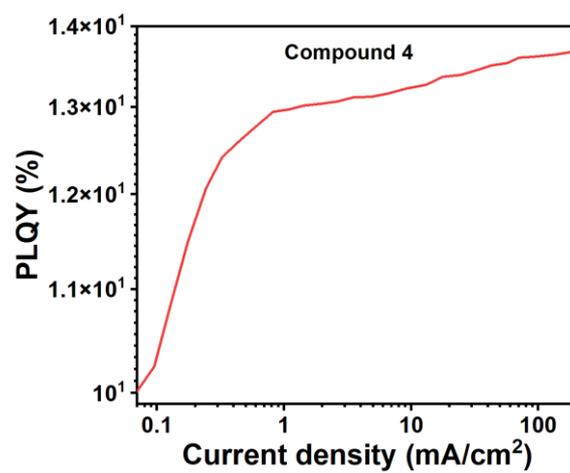
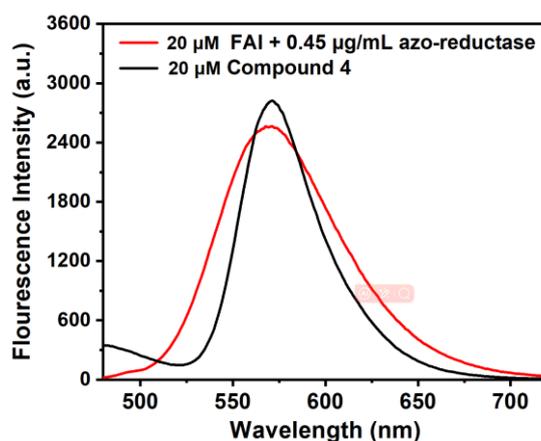
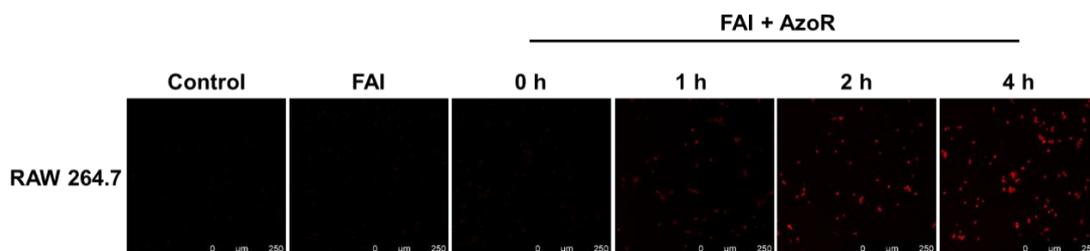


Figure S11. The absolute fluorescence quantum yield of compound 4 was measured by integrating hemispheres.

Table S1. Photophysical properties of compound 4 and FAI in different solvents.

Compd.	Solvent	λ_{ex} (nm)	λ_{em} (nm)	ϵ [$M^{-1} cm^{-1}$]	Φ_{FL} (%)
4	DMSO	450	570	27400	13.6
	DCM	404	570	31000	N.D
	EA	390	581	30150	N.D
	THF	390	586	40500	N.D
FAI	DMSO	360	588	42450	< 0.1
	DCM	365	573	23500	N.D
	EA	368	580	47250	N.D
	THF	366	578	35000	N.D

**Figure S12.** Fluorescence emission spectra of **FAI** and compound **4** (20 μM) in the absence of azo reductase (0.45 $\mu g/mL$).**Figure S13.** Fluorescence imaging in RAW264.7. First column, control; second column, images of RAW264.7 treated with **FAI** (20 μM) for 4 h; Images of RAW264.7 incubated with AzoR (0.4 $\mu g/mL$) and NADH (100 μM) for 24 h, and finally incubated with **FAI** (20 μM) for 0 h (third column), 1 h (fourth column), 2 h (fifth column) and 4 h (sixth column).