Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information

A simple and efficient fluorescent probe for rapid detecting H_2S in living cells and on agar gels

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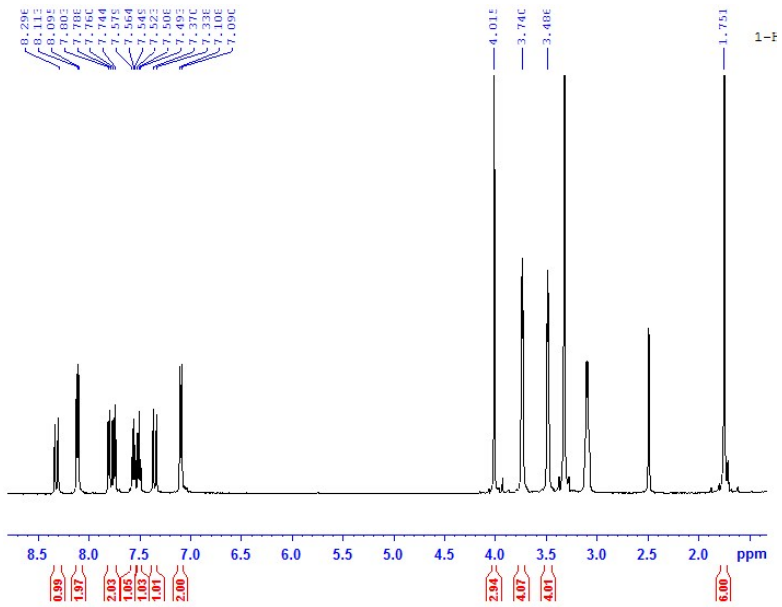

Fig. S1 ^{1}H NMR spectrum of probe **Mi** in DMSO-*d6*.

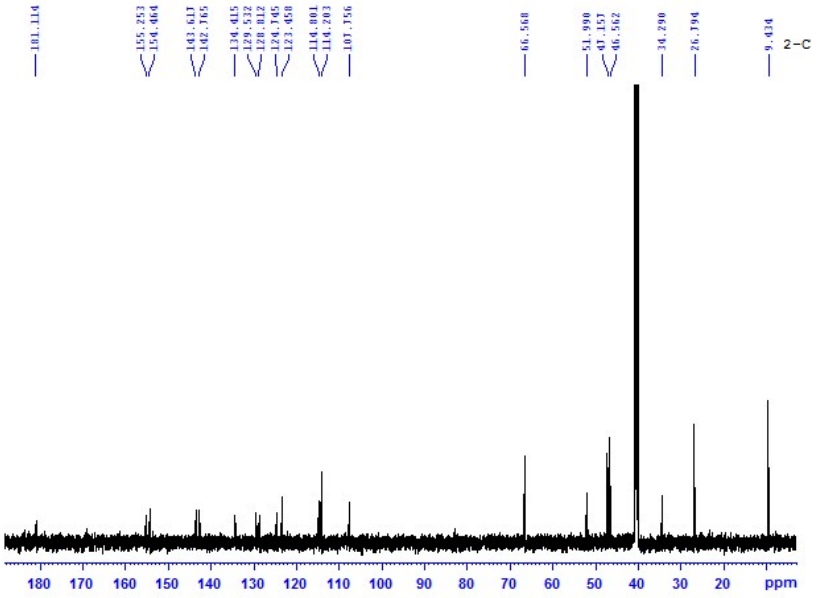

Fig. S2 ^{13}C NMR spectrum of probe **Mi** in DMSO-*d6*.

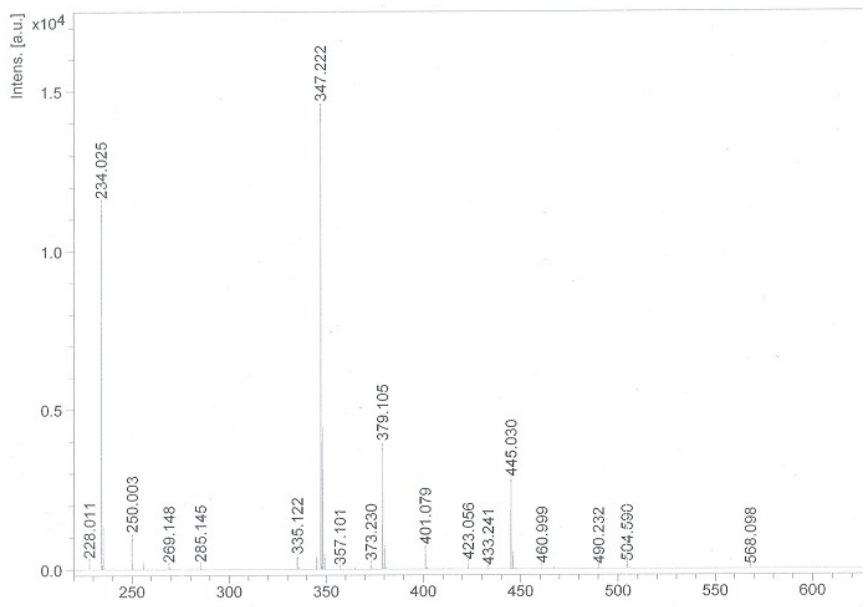

Fig. S3 MS spectrum of probe **Mi**.

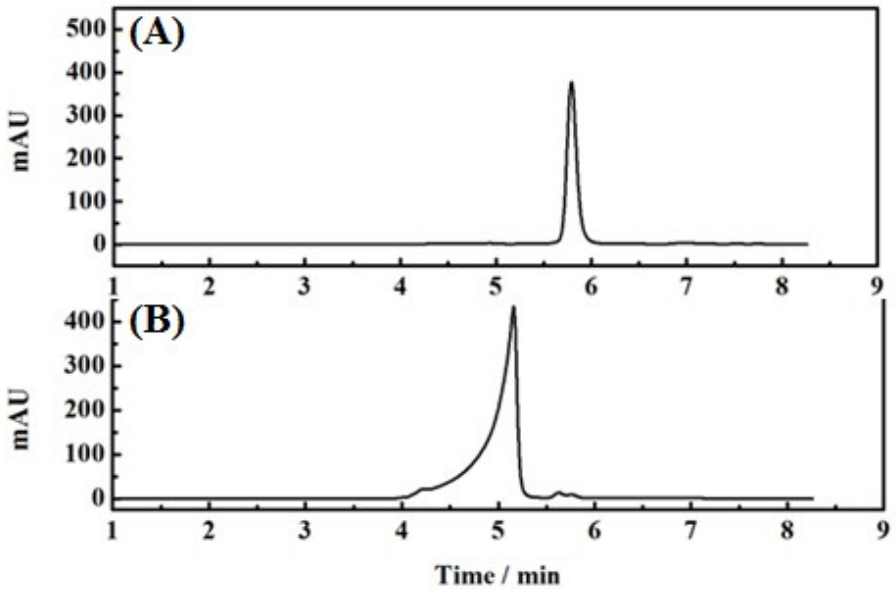

Fig. S4 HPLC spectrum of probe **Mi (A)** and **Mi-S (B)**.

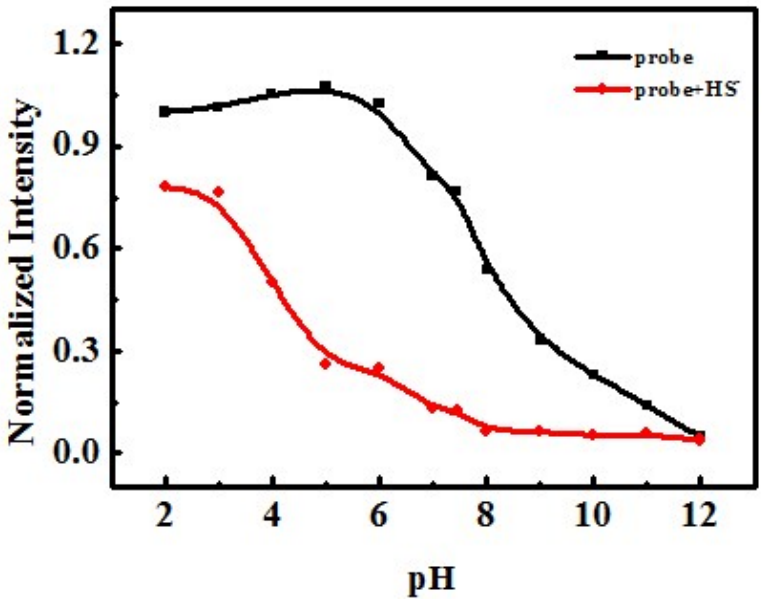

Fig. S5 Effect of pH on fluorescence intensity of probe (5 μM) in the absence and presence of HS^- (10 equiv.) in buffered DMSO/PBS (v/v = 1:1) solution. ($\lambda_{ex}/\lambda_{em}$ = 520/596 nm; slits: 5 nm/10 nm).

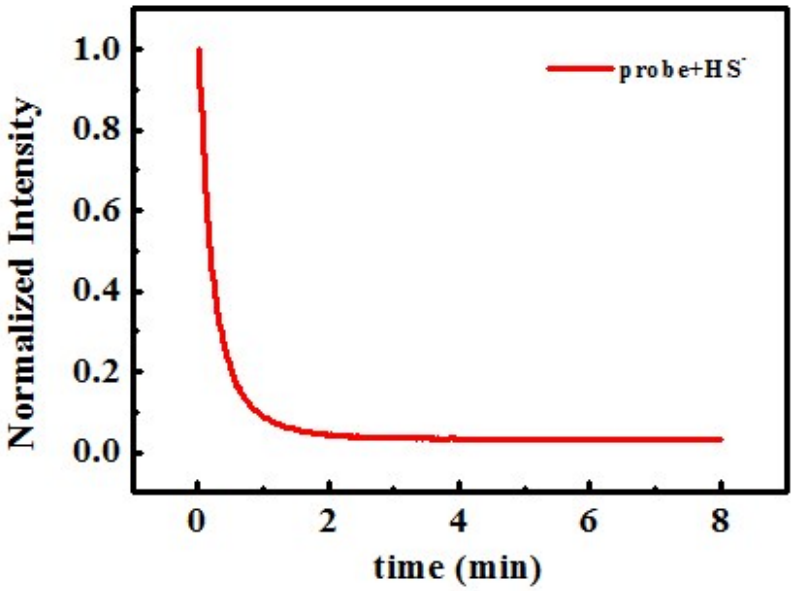

Fig. S6 Effect of incubation time on the fluorescence responses of probe **Mi** for HS^- detection. ($\lambda_{ex}/\lambda_{em}$ = 520/596 nm. slits: 5 nm/10 nm)

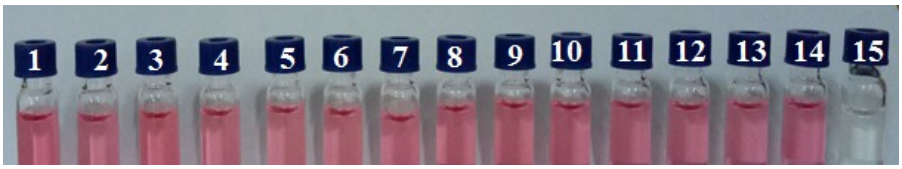

Fig. S7 The color change of probe **Mi** (5 μM) in presence of various analytes including: 1.none, 2. SCN^-, 3. NO_2^-, 4. SO_4^{2-}, 5. $S_2O_3^{2-}$, 6. ClO^-, 7.H_2O_2, 8. F^-, 9. Cl^-, 10.Cys, 11.Hcy, 12.GSH, 13. Citric acid, 14.Gly, 15. HS^- (20 equiv of 2-14, 10 equiv of 15). ($\lambda_{ex}/\lambda_{em}$ = 520/596 nm. slits: 5 nm/10 nm)

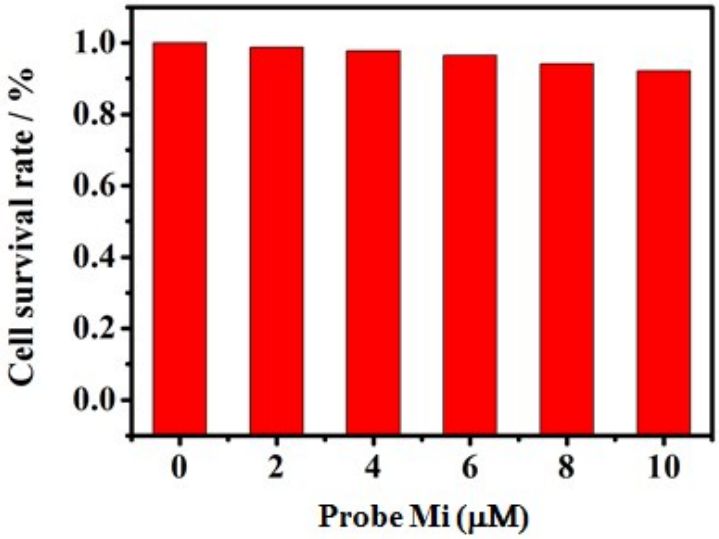

Fig. S8 MTT assay for the survival rate of HeLa cells treated with various concentrations of probe **Mi** for 24 h.