Supporting Information

Two isomeric and distinguishable H_2S fluorescence probes for monitoring spoilage of eggs as well as visualizing exogenous and endogenous H_2S in living cells

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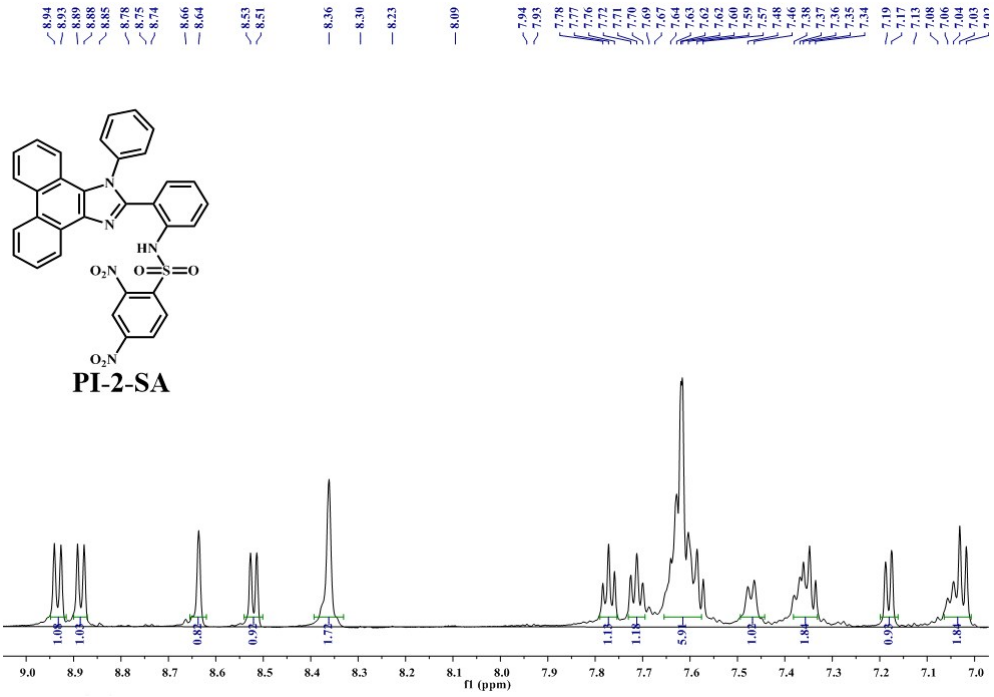

Fig. S1 ^{1}H NMR spectra of **PI-2-SA** in DMSO-d_6 (600 MHz).

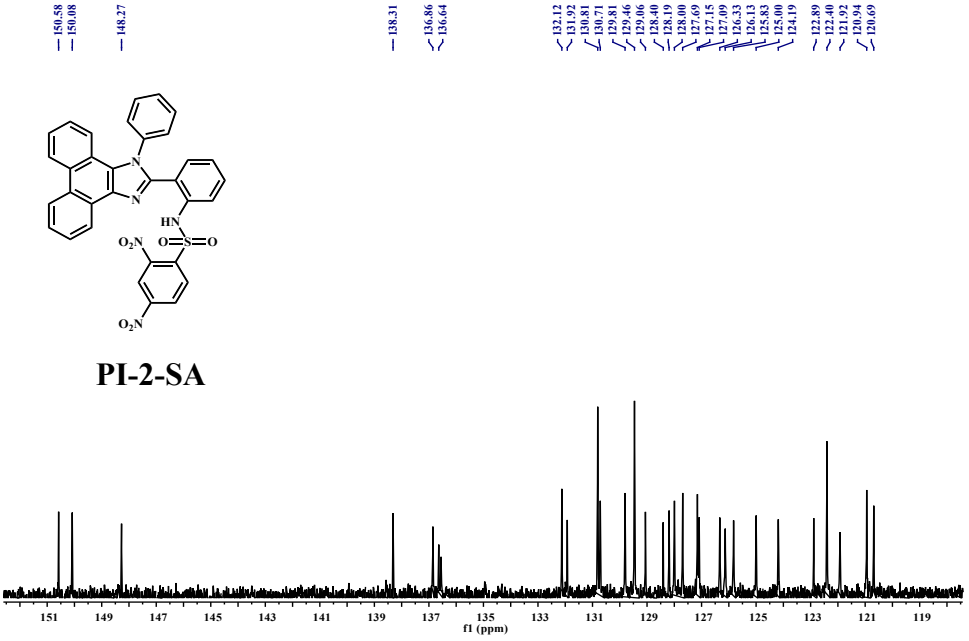

Fig. S2 ^{13}C NMR spectra of **PI-2-SA** in DMSO-d_6 (150 MHz).

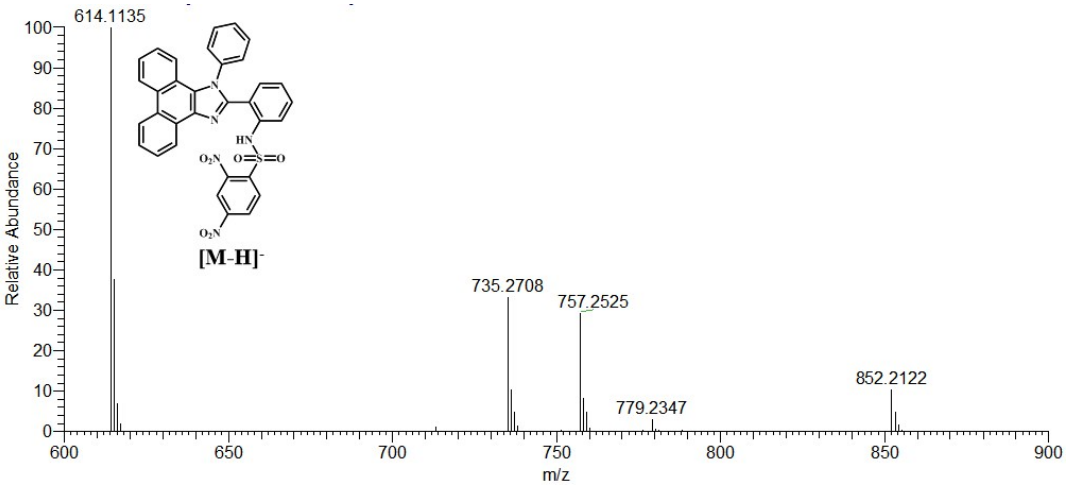

Fig. S3 ESI-MS spectrum of **PI-2-SA**.

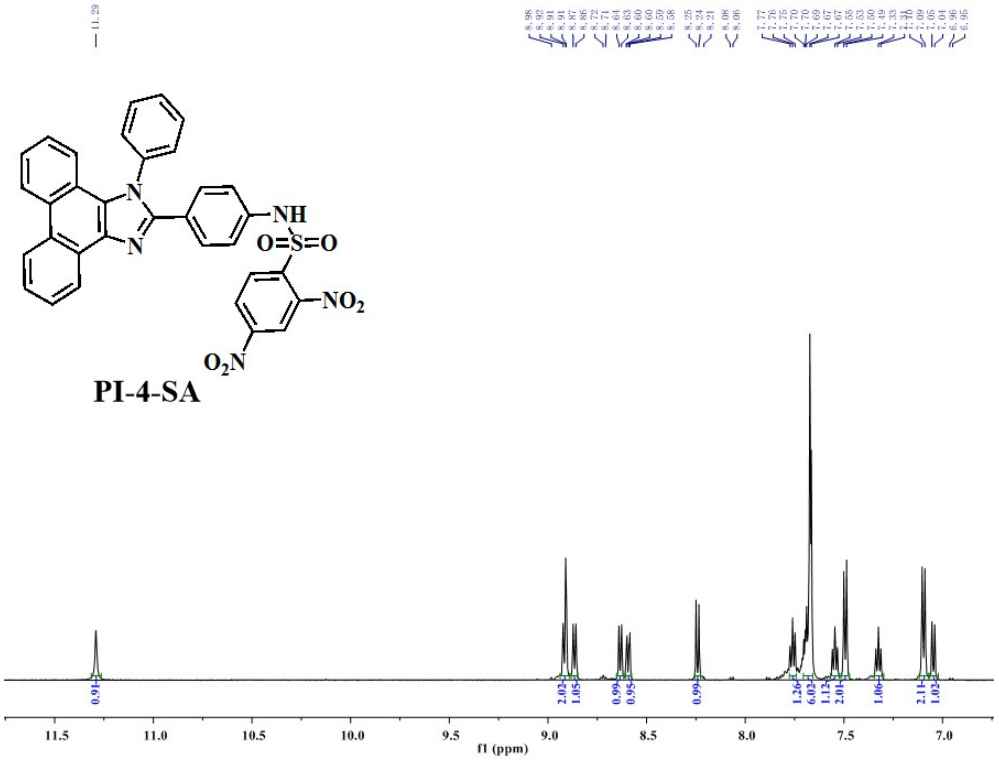

Fig. S4 ^{1}H NMR spectra of **PI-4-SA** in DMSO-d_6 (600 MHz).

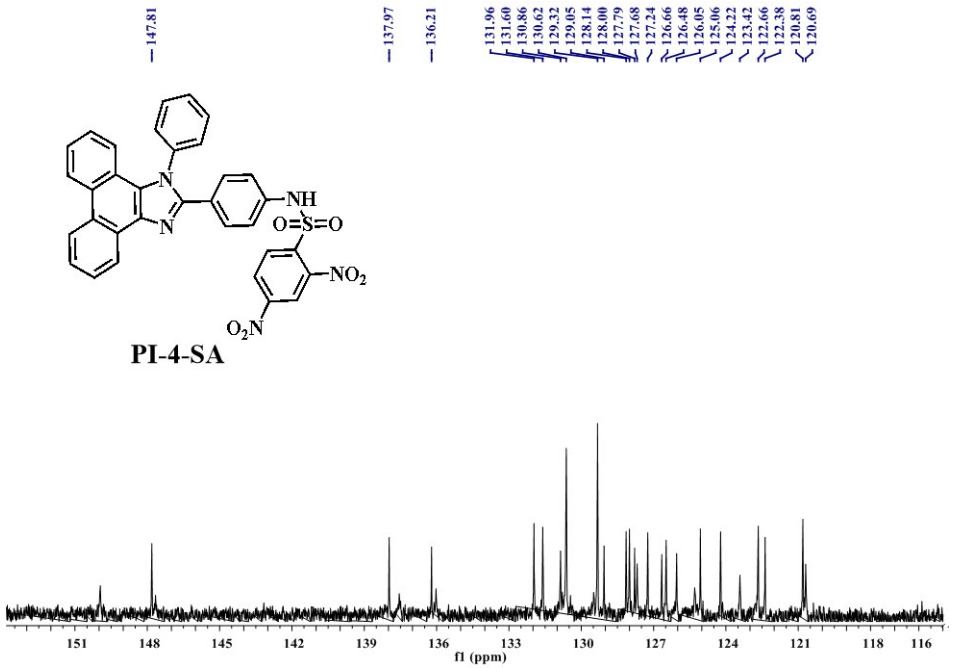

Fig. S5 ^{13}C NMR spectra of **PI-4-SA** in DMSO-d_6 (150 MHz).

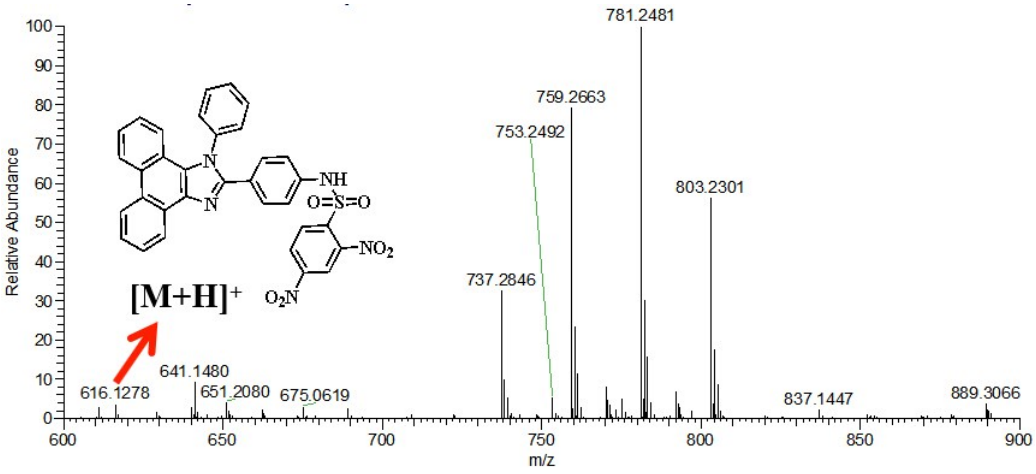

Fig. S6 ESI-MS spectrum of **PI-4-SA**.

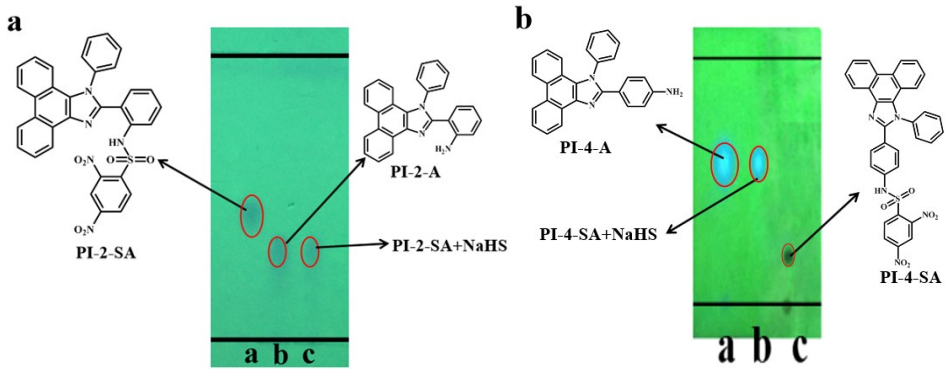

Fig. S7 Thin layer chromatography (TLC) analysis of the reaction of **PI-2-SA** (10 μM) with NaHS (50 μM) (a) and **PI-4-SA** with NaHS (0.25 mM) (b) in DMF/H_2O (v/v=1/1, Hepes 10 μM, pH =7.4) solution.

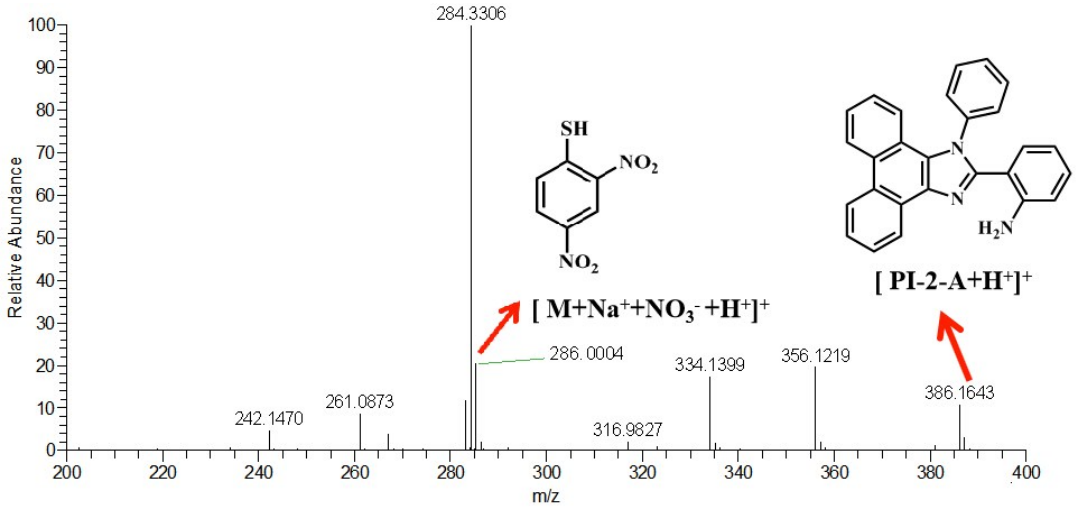

Fig. S8 ESI-MS spectrum for the reaction products of **PI-2-SA** with NaHS.

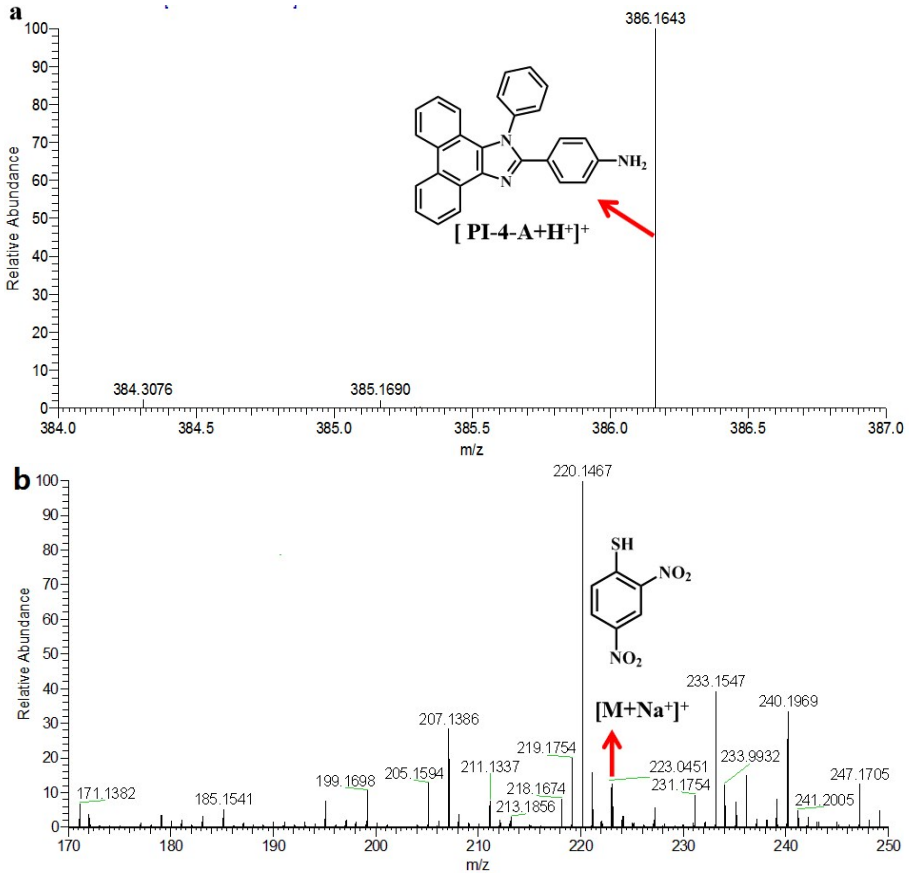

Fig. S9 ESI-MS spectrum for the reaction products of **PI-4-SA** with NaHS (a for **PI-4-A** and b for 2,4-dinitro phenthiol).

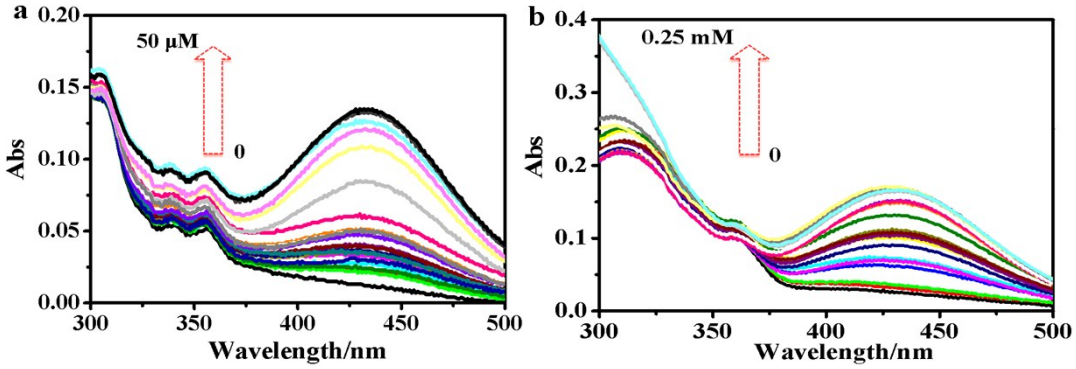

Fig. S10 UV-vis spectra of **PI-2-SA** (10 μM) (a) and **PI-4-SA** (10 μM) (b) with various amount of NaHS in DMF/H_2O (v/v=1/1, Hepes 10 μM, pH =7.4).

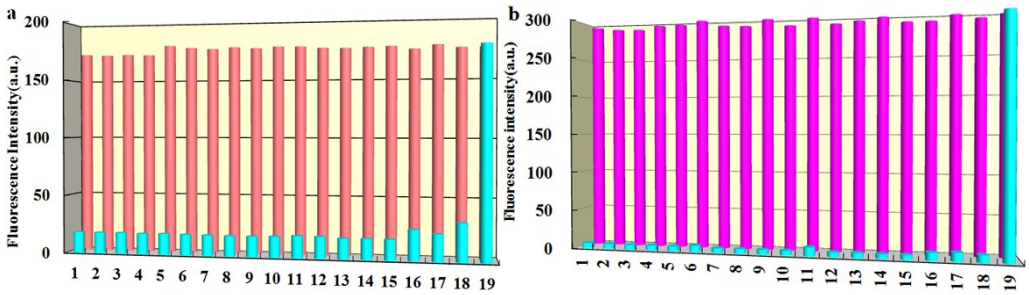

Fig. S11 Fluorescence intensities of **PI-2-SA** (10 μM, λ_{ex}=310 nm) (a) and **PI-4-SA** (10 μM, λ_{ex}=329 nm) (b) upon the addition of various relevant matters (1.blank; 2.Br^{-}; 3.Cl^{-} ; 4.F^{-}; 5.BrO^{3-}; 6.I^{-}; 7.SO_3^{2-}; 8.HSO_3^{-}; 9.SCN^{-}; 10.NO_3^{-}; 11.$H_2PO_4^{-}$; 12.CO_3^{2-}; 13.HCO_3^{-}; 14.AcO^{-}; 15.GSH; 16.L-Cys; 17.Hcy; 18.S^{2-}; 19.HS^{-}) in the presence of NaHS with mole ratio of 1 : 2 between NaHS and analyte.

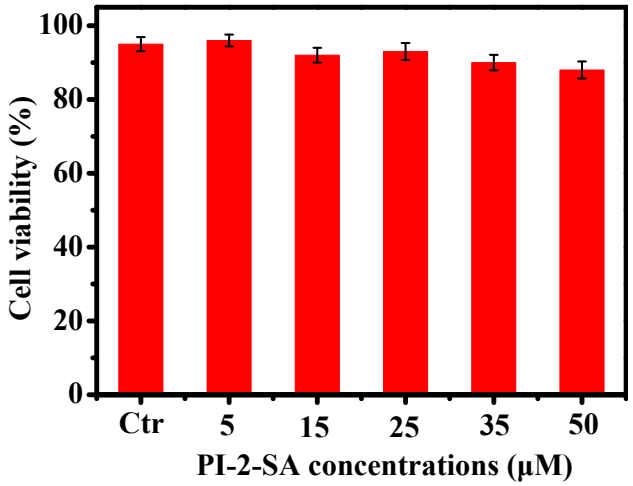

Fig. S12 MTT assay of HeLa cells in the presence of different concentrations of **PI-2-SA**.