

Supporting Information

A Red Mitochondria-Targeted AIEgen for Visualizing H₂S in Living Cells and Tumors

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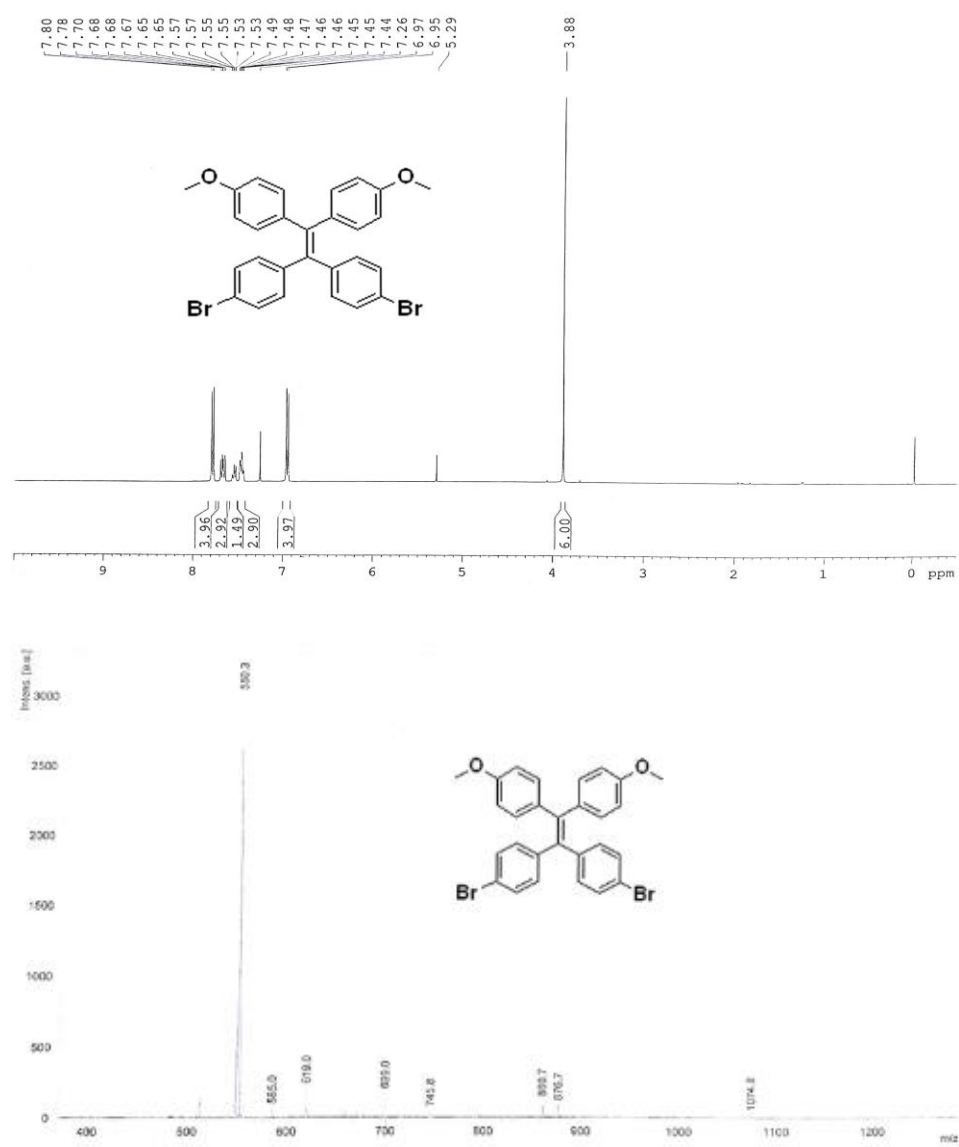
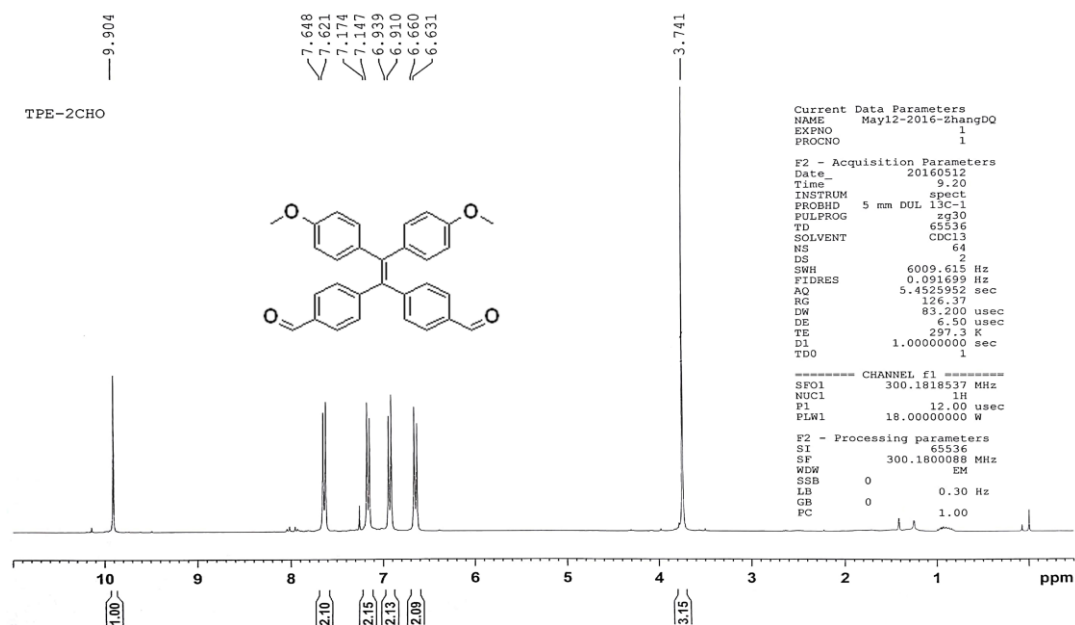
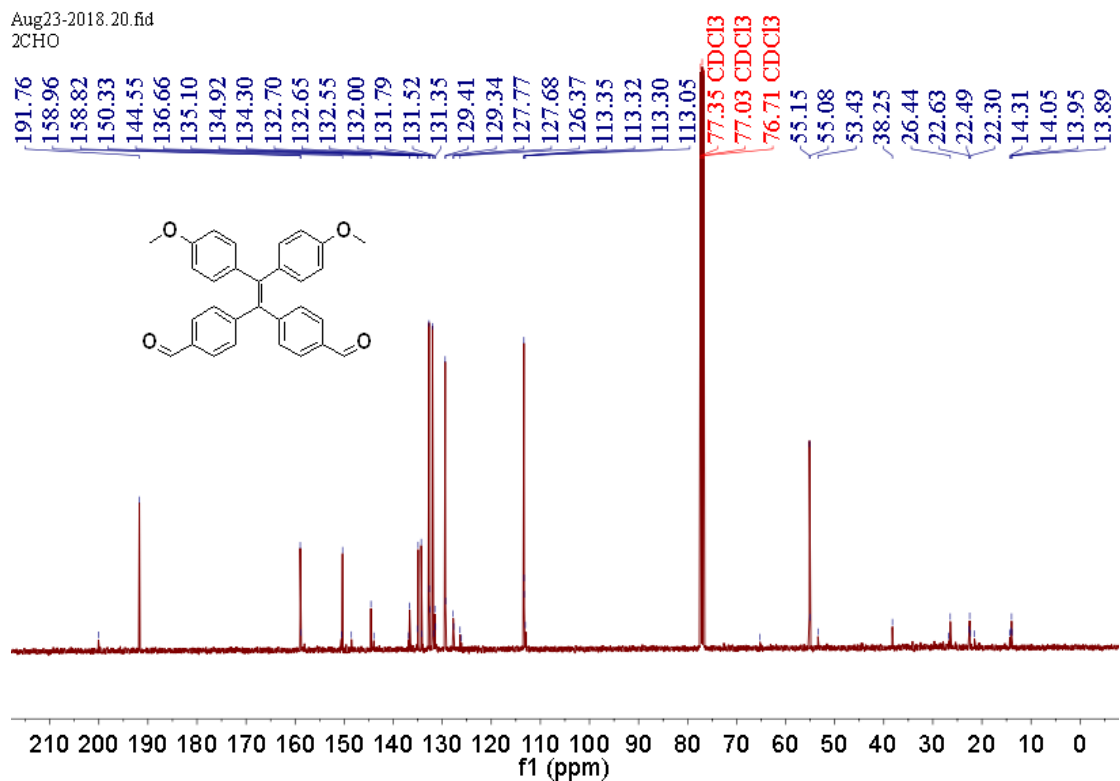


Fig. S1 ¹H NMR and MALDI-TOF of **TPE-2Br** m/z 550.3.



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2CHO



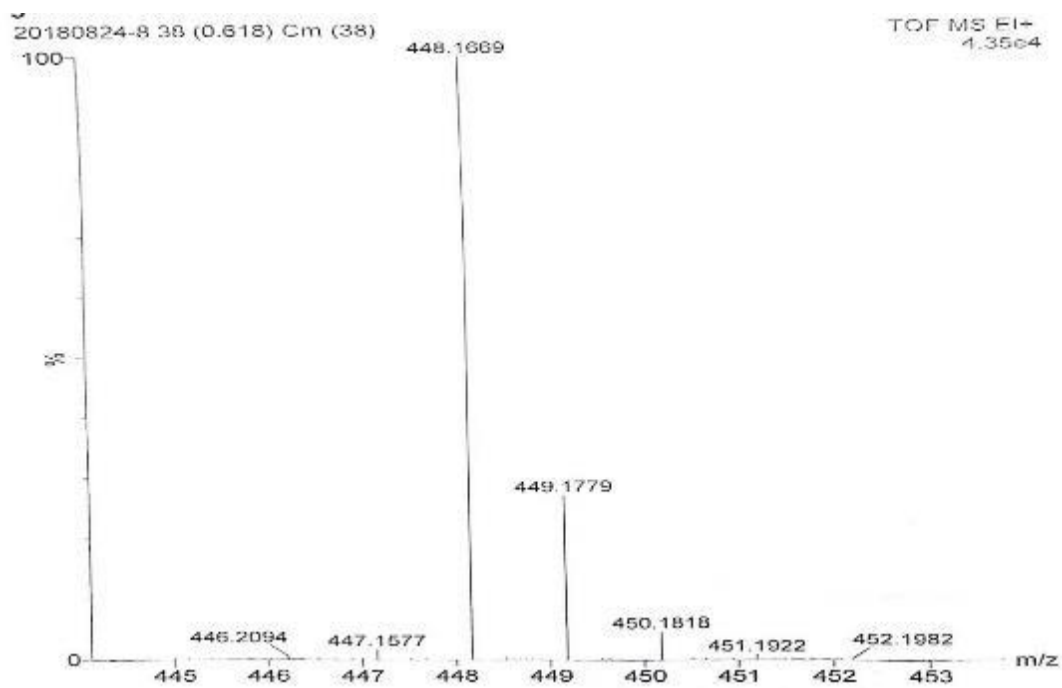
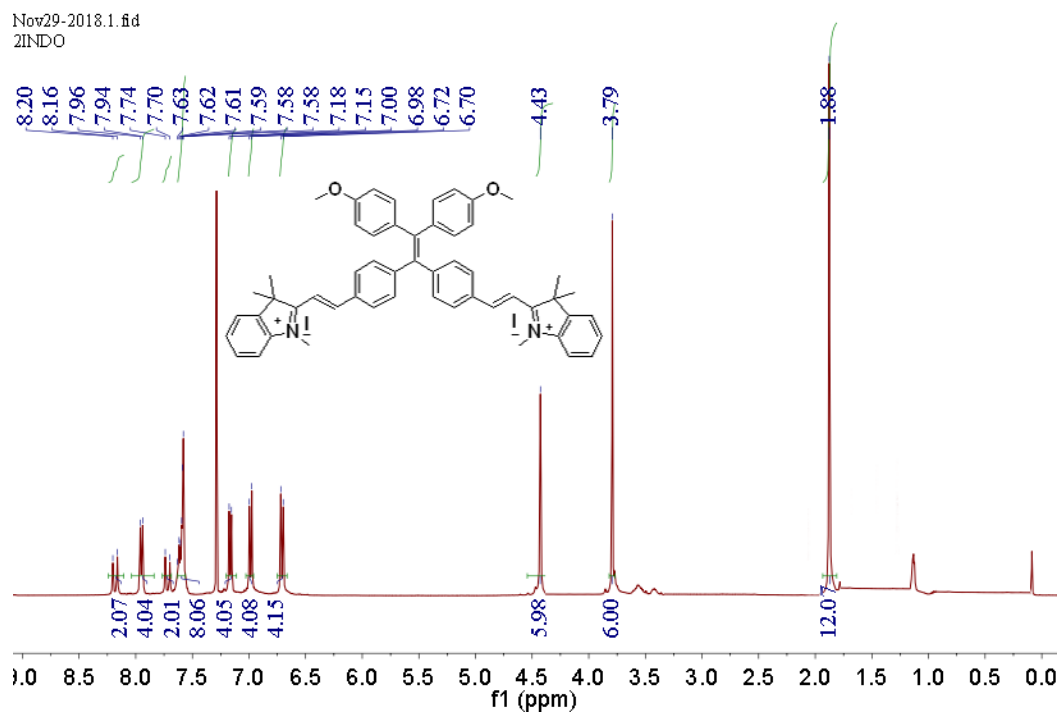


Fig. S2 ^1H NMR, ^{13}C NMR and HRMS of **TPE-2CHO** m/z 448.1669.



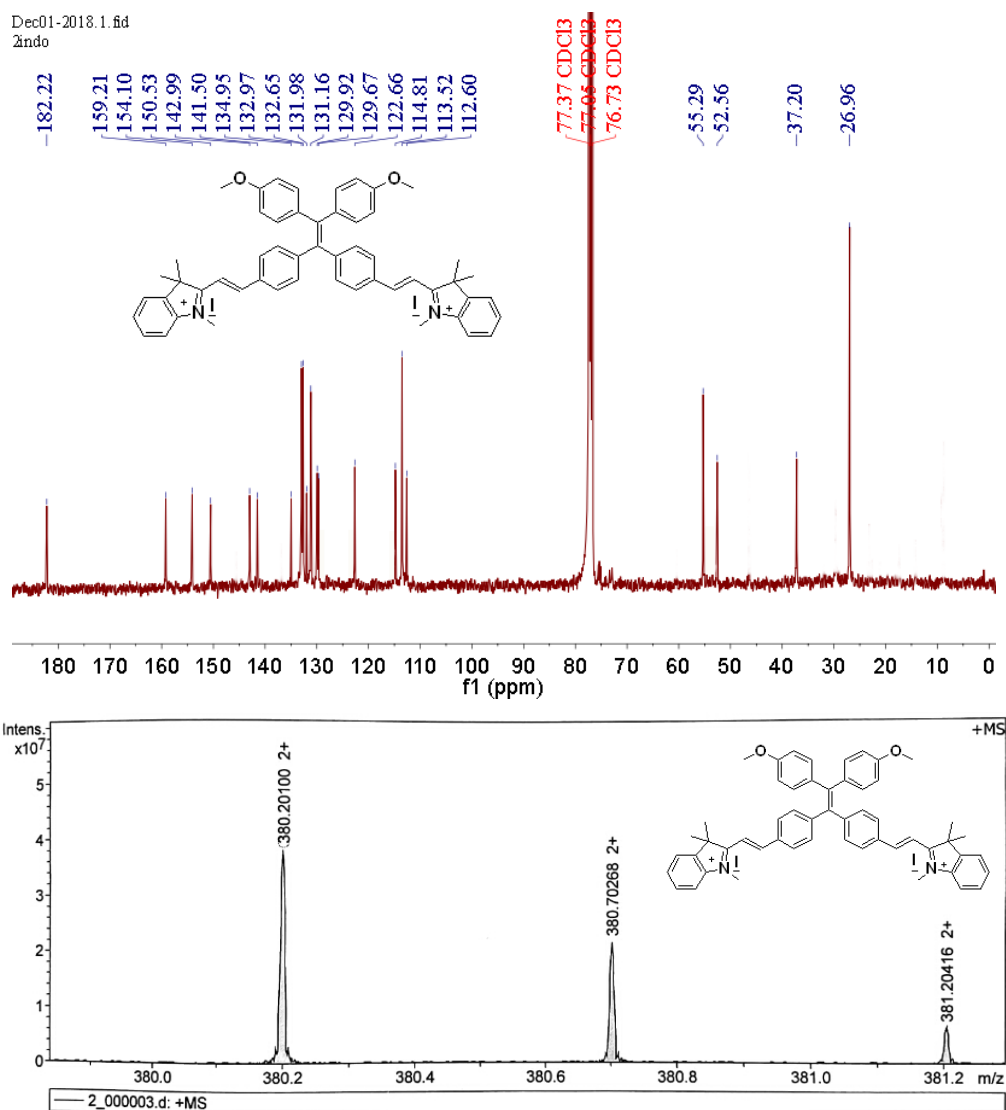


Fig. S3 ¹H NMR, ¹³C NMR and high resolution mass spectrometry of the Indo-TPE-Indo m/z 380.2010.

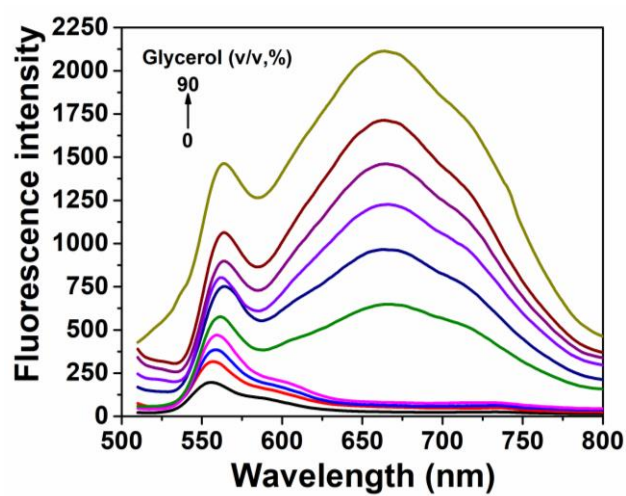


Fig. S4 The fluorescence spectra of Indo-TPE-Indo in various glycerol aqueous solution (glycerol/water, v/v).

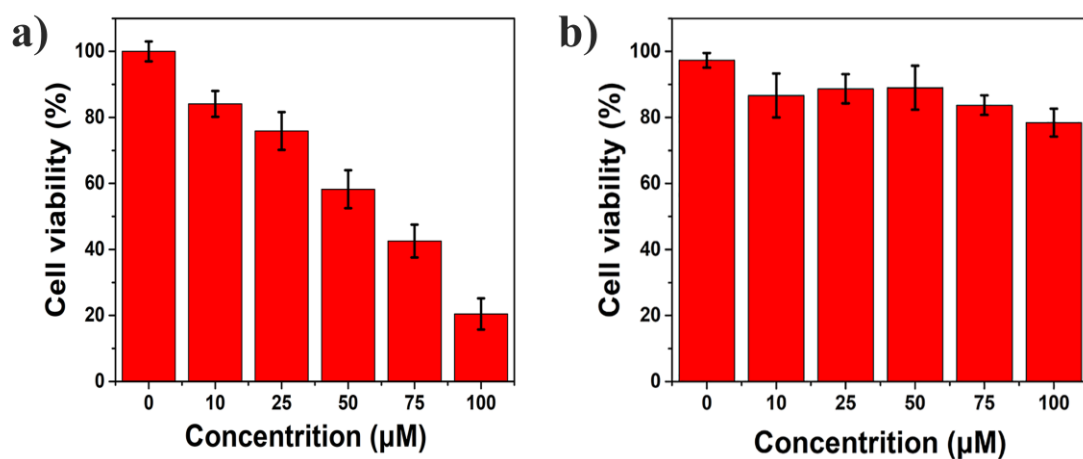


Fig. S5 Cytotoxicity of luminogens (a) **TPE-indo** and (b) **Indo-TPE-Indo** evaluated on HeLa cells by MTT assay.

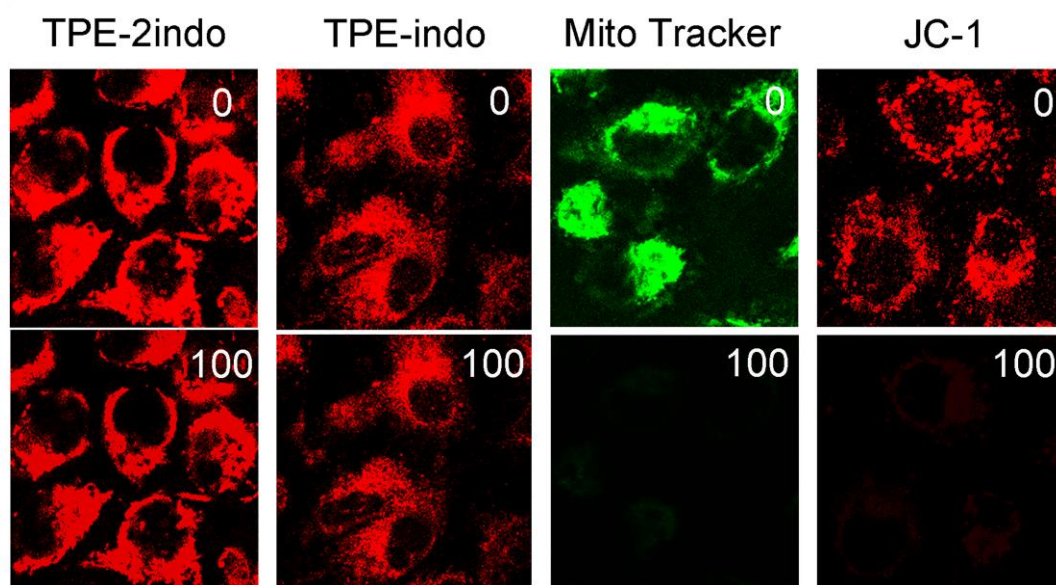


Fig. S6 Fluorescence images of HeLa cells stained with **Indo-TPE-Indo** (20 μM), **TPE-indo** (20 μM), MitoTracker, and JC-1 at 0 and 100 bleaching times respectively. The irradiation time is 1.0 s per bleaching.

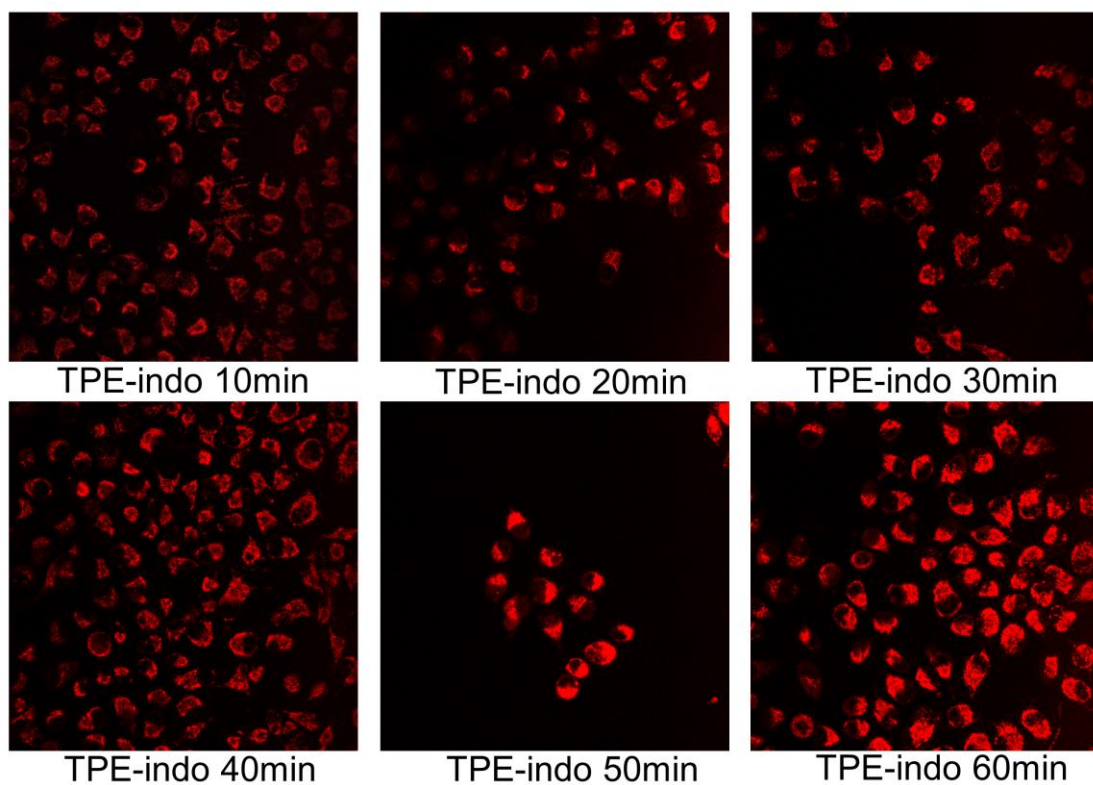


Fig. S7 The fluorescence intensity of **TPE-indo** (20 μ M) at different incubation time in HeLa cells.

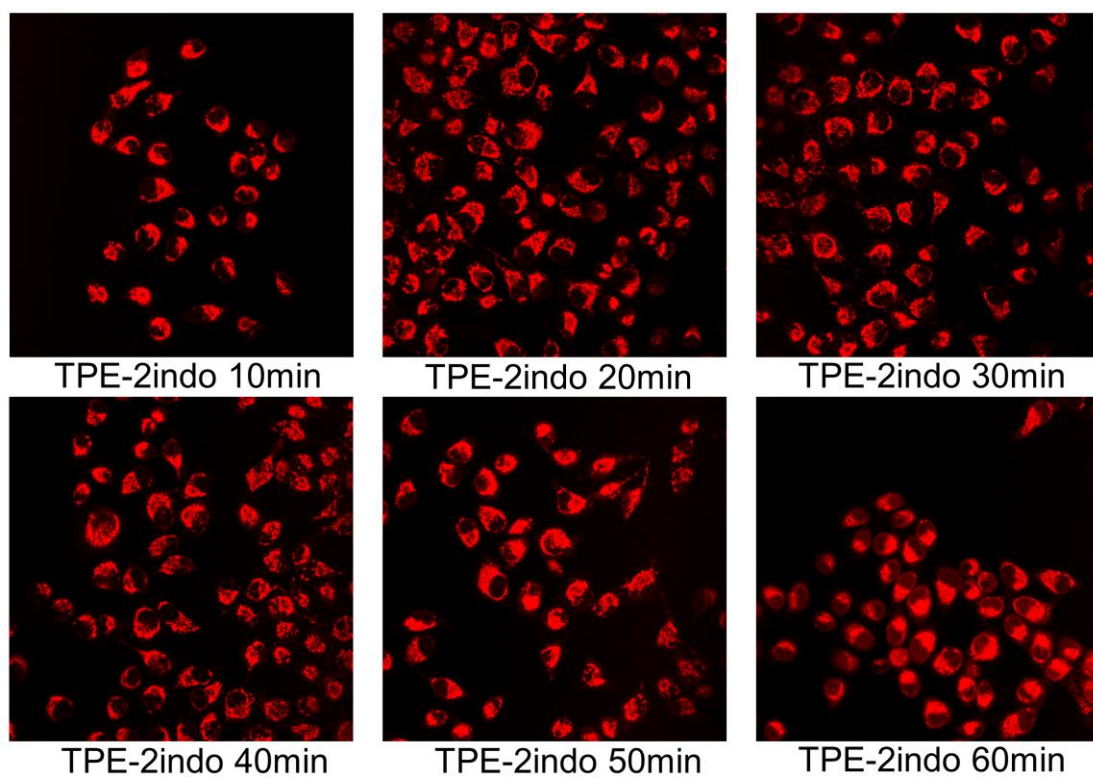


Fig. S8 The fluorescence intensity of **Indo-TPE-Indo** (20 μ M) at different incubation time in HeLa cells.

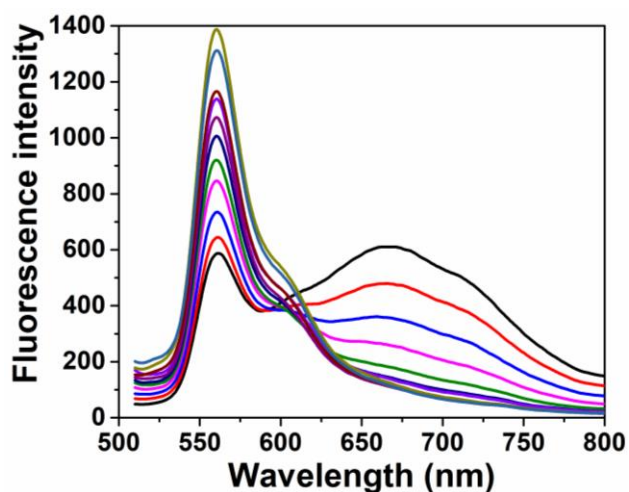


Fig. S9 The fluorescence spectra of **Indo-TPE-Indo** (20 μ M) with NaHS (1-100 μ M) in 40% glycerol aqueous solution (v/v).

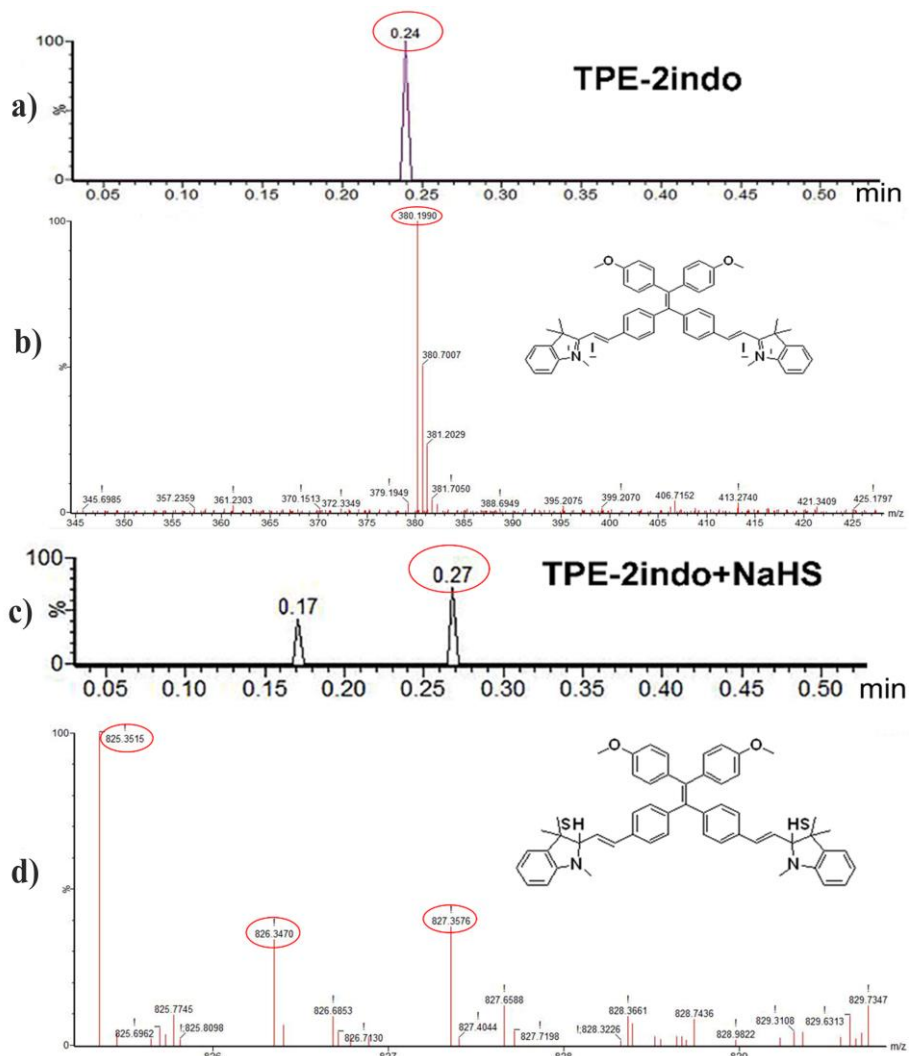


Fig. S10 HPLC profiles of **Indo-TPE-Indo** (a) and **Indo-TPE-Indo+NaHS** (c). HRMS spectrum of **Indo-TPE-Indo** (b) and **Indo-TPE-Indo+NaHS** (d). The retention time of **Indo-TPE-Indo** is 0.24 min and m/z at 380.1990. The retention time of **Indo-TPE-Indo +NaHS** is 0.27 min and m/z at 825.3515.

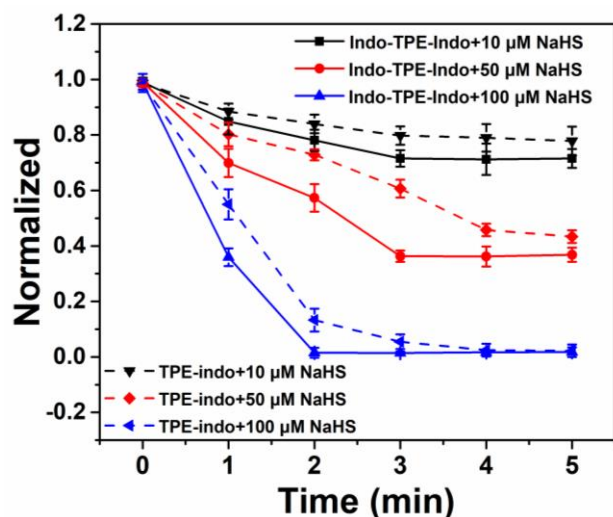


Fig. S11 Real-time fluorescence intensity change of **Indo-TPE-Indo** (20 μ M) and **TPE-indo** (20 μ M) with various HS^- concentrations in 65% glycerol aqueous solution (v/v).

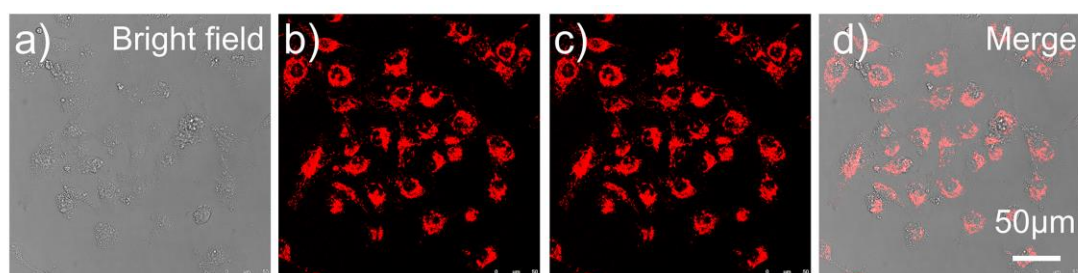


Fig. S12 (a) Bright field of HUVEC cells; (b) incubation with **Indo-TPE-Indo** (20 μ M); (c) exposed to the laser for the same time; (d) the merge image of (a) and (b).

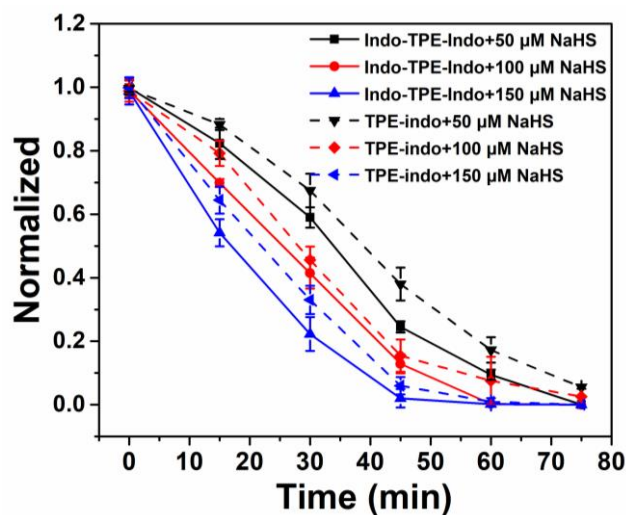


Fig. S13 Real-time fluorescence change of **Indo-TPE-Indo** (20 μ M) and **TPE-indo** (20 μ M) with various HS^- concentrations in MCF-7 cells.