Supporting Information

A simple and efficient fluorescent probe for rapid detecting H₂S in living cells and on agar gels

Yaqian Li, Biao Gu, Wei Su, Xiaoli Duan, Hai Xu, Zhen Huang, Haitao Li * and Shouzhuo Yao

Key Laboratory of Chemical Biology and Traditional Chinese Medicine Research (Ministry of Education), College of Chemistry and Chemical Engineering, Hunan Normal University, Changsha 410081, PR China.

Corresponding author: Tel: +86-731-88865515; fax: +86-731-88865515;
E-mail address: haitao-li@hunnu.edu.cn
Fig. S1 $^1$H NMR spectrum of probe Mi in DMSO-$d_6$.

Fig. S2 $^{13}$C NMR spectrum of probe Mi in DMSO-$d_6$. 
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. \(\lambda_{\text{ex}}/\lambda_{\text{em}} = 520/596\) nm; slits: 5 nm/10 nm).

**Fig. S6** Effect of incubation time on the fluorescence responses of probe Mi for HS⁻ detection. \(\lambda_{\text{ex}}/\lambda_{\text{em}} = 520/596\) 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.