Supporting Information

Development of a highly selective H$_2$S fluorescent probe and its application to evaluate CSE inhibitors

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Fig. S1 The HPLC profile of a) C359; b) C359+1equiv H₂S; c) C359+5equiv H₂S; d) C169; Conditions: Column: Waters SunFire™ C18 5µm, 4.6×150mm column; Solvents: CH₃OH/H₂O; Gradient: 35% to 45% of CH₃OH (0-8 min); Detection wavelength: 310 nm.
Fig. S2 Time-dependent fluorescent intensity (450 nm) in the presence of C359 (5×10^{-6}M) and NaHS (1equiv) in Tris HCl buffer (200mM, pH 7.4).

Fig. S3 The slope k of the linear regression curve was determined to be 111.3619×10^6 M^{-1}. The Standard Deviation was obtained by the fluorescence responses to be σ = 1.84477668, therefore, the detection limit was calculated by the formula (3σ/k) and gave a result as 5.0 × 10^{-8} M.
Fig. S4  $^1$H NMR of C498.

Fig. S5  $^{13}$C NMR of C498.
Fig. S6  $^1$H NMR of C359.

Fig. S7  $^{13}$C NMR of C359.