

## Support information

A novel BODIPY disulfonate near-infrared fluorescence-enhanced probe: synthesis,

high selectivity to endogenous glutathione and two-photon fluorescent turn-on

through thiol-induced SNAr substitution

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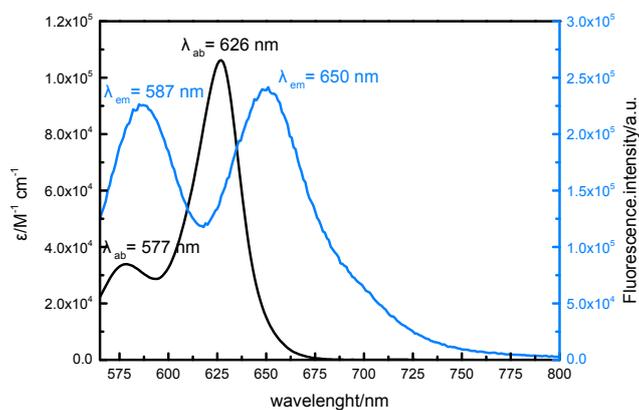
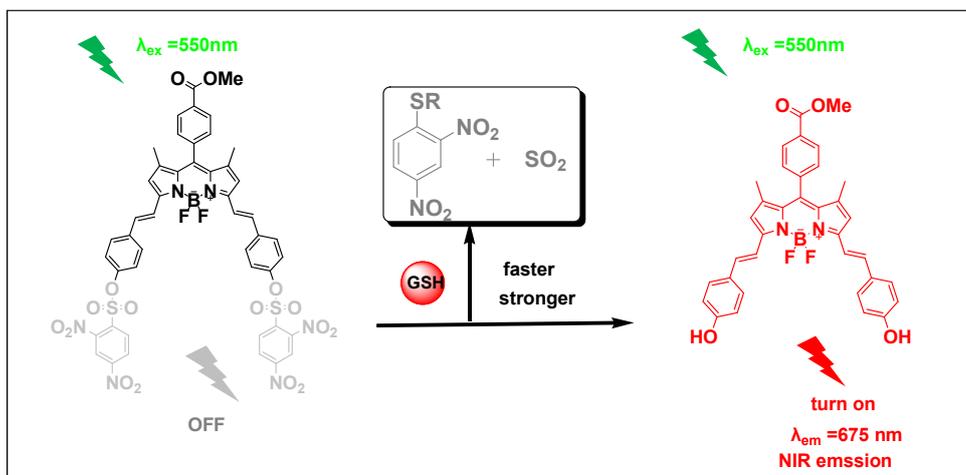


Fig. S1 The absorption (black line) and fluorescence (blue line) spectra in THF/H<sub>2</sub>O (v/v = 1:1) buffer with pH 7.4 PBS solution at a concentration of  $10^{-5}$  M.



Scheme.S1 Proposed mechanism of GSH - induced nucleophilic substitution of probe

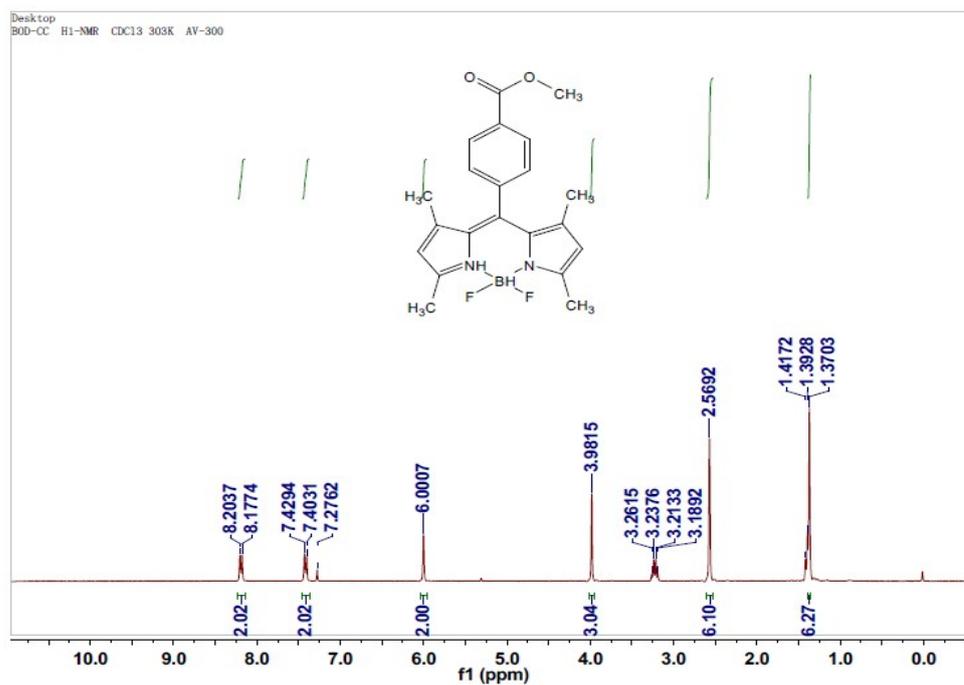


Figure S2.  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of compound M1

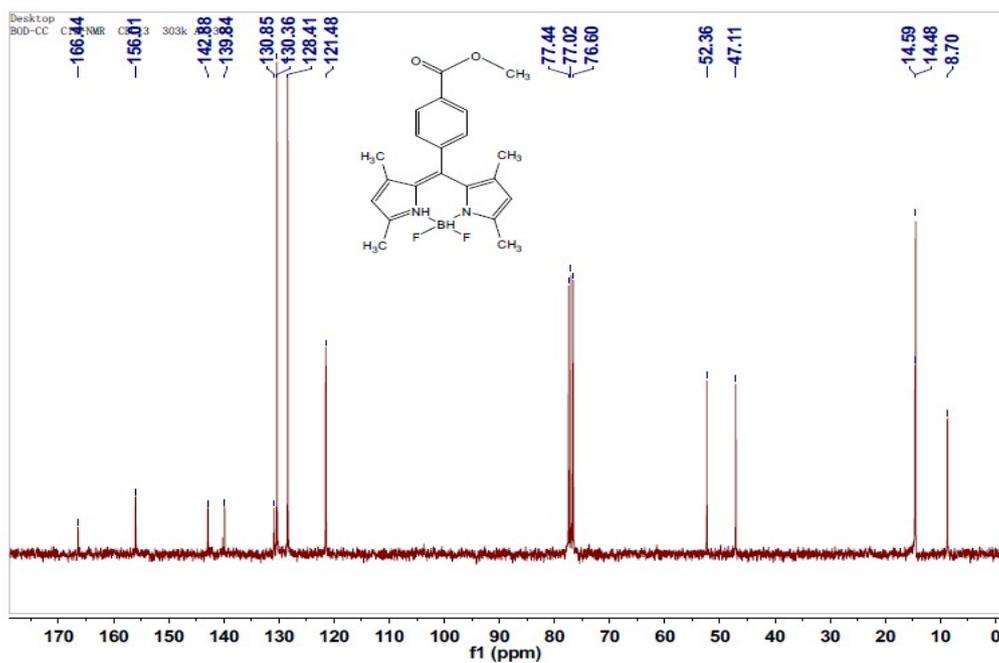


Figure S3.  $^{13}\text{C}$ -NMR ( $\text{CDCl}_3$ ) spectrum of compound M1

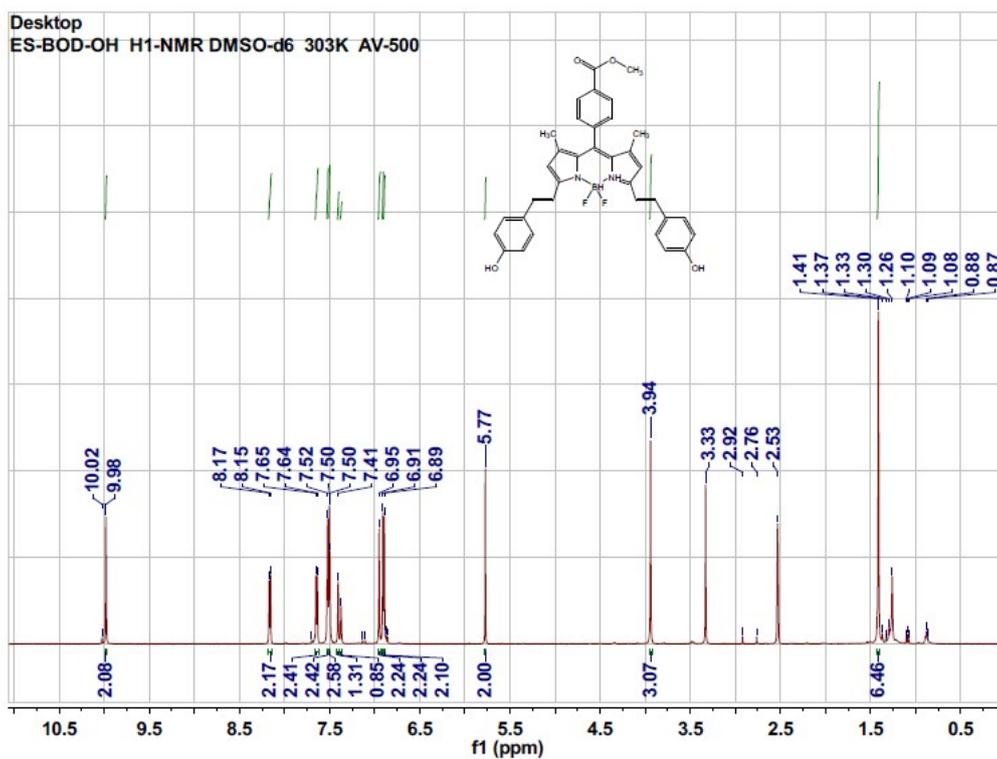


Figure S4.  $^1\text{H}$ -NMR ( $\text{DMSO}-d_6$ ) spectrum of compound M2

Sample Name	ES-BOD-OH	Position	Vial 2	Instrument Name	Instrument 1
User Name		Inj Vol	1	InjPosition	
Sample Type	Sample	IRM Calibration Status	Success	Data Filename	ES-BOD-OH.d
ACQ Method	0321-m	Comment		Acquired Time	3/21/2017 8:06:59 PM (UTC+08:00)

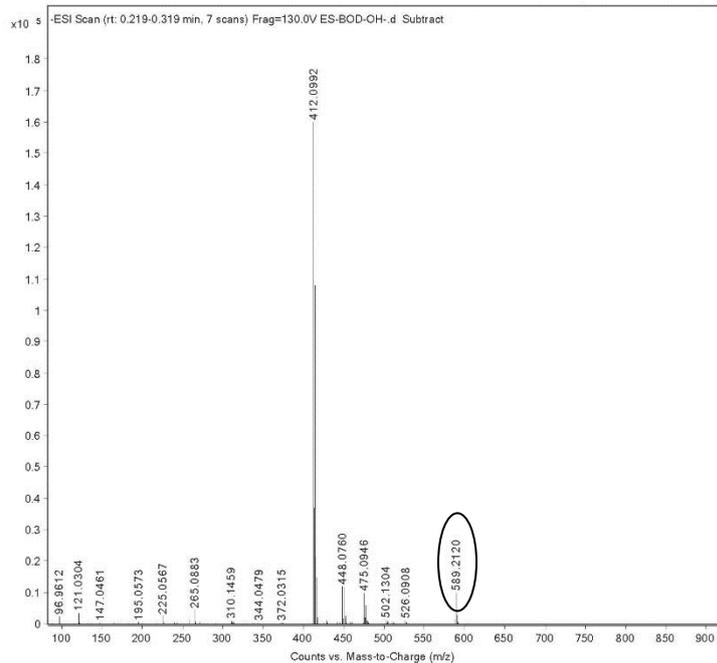


Figure S5. The MS spectrum of compound M2. The peak at  $m/z$  598.2120 corresponds to the compound  $M_2 [M-H]^-$ , as shown in the figure.

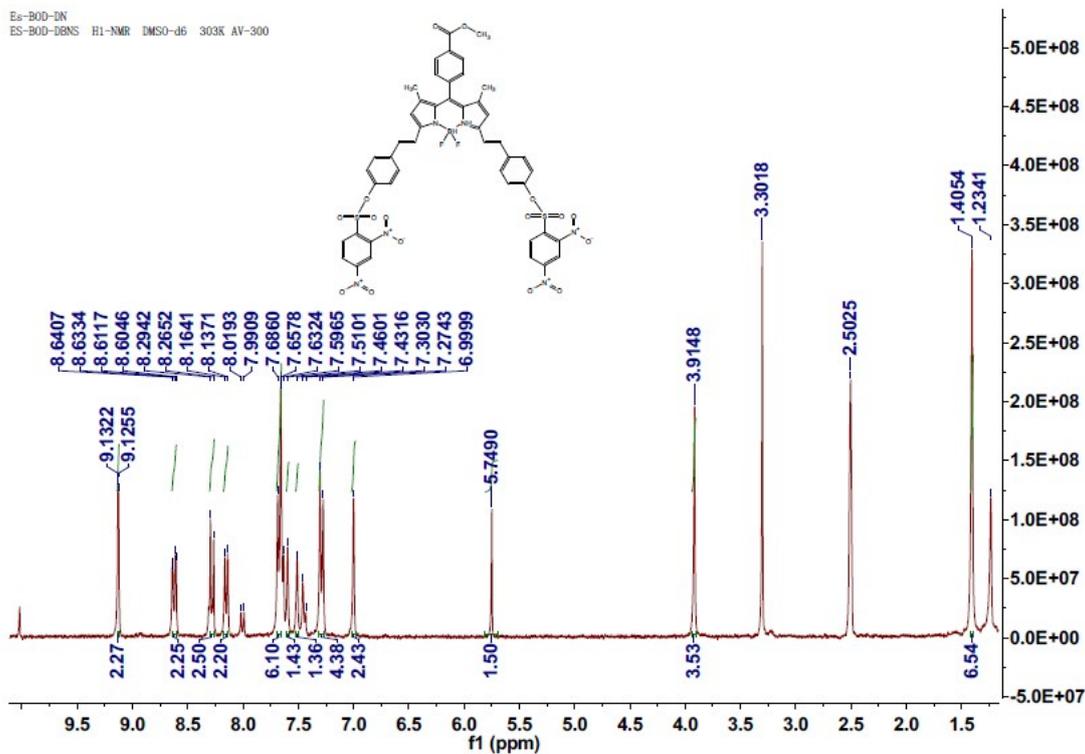


Figure S6.  $^1\text{H-NMR}$  (DMSO- $d_6$ ) spectrum of BODIPY-ONs

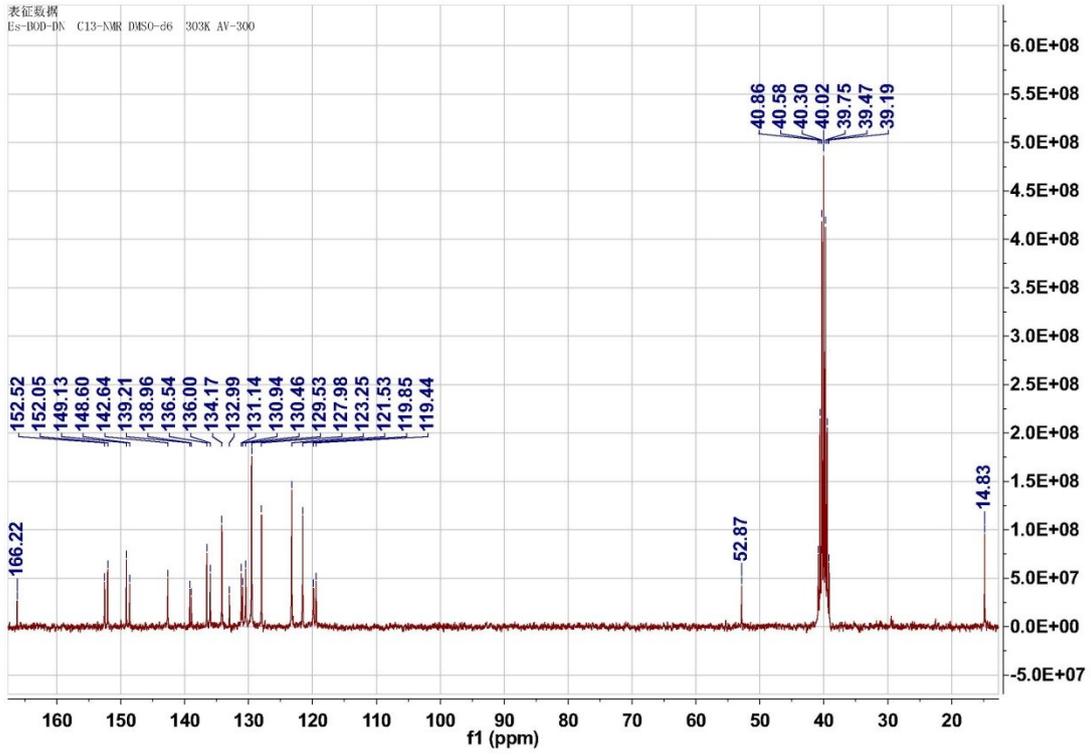


Figure S7.  $^{13}\text{C}$ -NMR ( $\text{DMSO-}d_6$ ) spectrum of BODIPY-ONs