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### SUPPORTING INFORMATION

# Curcumin-based Sulfenic Acid as light-switch for the

# **Binding of Biothiols**

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Figure S1. <sup>1</sup>H NMR spectrum of compound 3 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S2. <sup>13</sup>C NMR spectrum of compound 3 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S3. <sup>1</sup>H spectrum of compound 4 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S4. <sup>13</sup>C NMR spectrum of compound 4 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S5. <sup>1</sup>H NMR spectrum of compound 6 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S6. <sup>13</sup>C NMR spectrum of compound 6 (500 MHz, CDCl<sub>3</sub>, 25 °C)





Figure S8. <sup>1</sup>H NMR spectrum of compound 7 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S9. <sup>13</sup>C NMR spectrum of compound 7 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S11. <sup>13</sup>C NMR spectrum of compound 8 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S13. <sup>13</sup>C NMR spectrum of compound 10 (500 MHz, CDCl<sub>3</sub>, 25 °C)



Figure S14. <sup>1</sup>H NMR spectrum of compound 11 (500 MHz, DMSO-d6, 25 °C)