

Supplementary Information

Signaling of hypochlorous acid by selective deprotection of dithiolane

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- Fig. S1.** UV-vis spectra of **1**, **1** in the presence of HOCl, representative metal ions, and anions.
- Fig. S2.** Fluorescence spectra of **1**, **1** in the presence of HOCl, representative metal ions, and anions.
- Fig. S3.** Changes in fluorescence intensity of **1** in the presence of HOCl and representative metal ions.
- Fig. S4.** Changes in fluorescence intensity of **1** in the presence of HOCl and representative anions.
- Fig. S5.** Time course plot for the changes in fluorescence intensity at 457 nm of **1** in the absence and presence of HOCl.
- Fig. S6.** UV-vis spectra of **1** and **2** in the absence and presence of HOCl.
- Fig. S7.** Changes in fluorescence intensity of **1** and **2** in the absence and presence of HOCl.
- Fig. S8.** ^1H NMR spectrum of **1** in CDCl_3 .
- Fig. S9.** ^{13}C NMR spectrum of **1** in CDCl_3 .

Fig. S1. UV-vis spectra of **1**, **1** in the presence of HOCl, representative metal ions, and anions. $[1] = 2.0 \times 10^{-5}$ M, $[HOCl] = [M^{n+}] = [A^{n-}] = 2.0 \times 10^{-4}$ M in a mixture of CH₃CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). **1** + Fe³⁺ spectrum was obtained by subtracting the absorption of Fe³⁺.

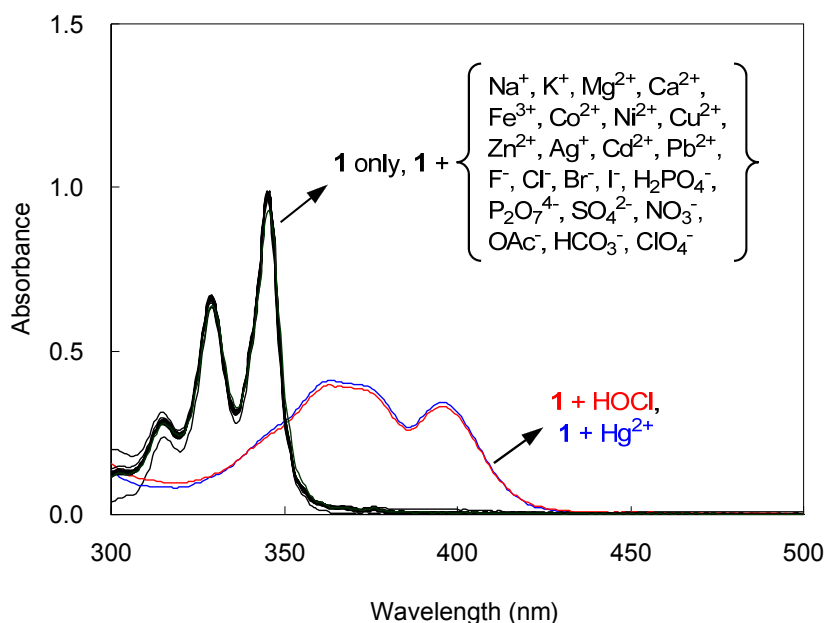


Fig. S2. Fluorescence spectra of **1**, **1** in the presence of HOCl, representative metal ions, and anions. $[1] = 5 \times 10^{-6}$ M, $[HOCl] = [M^{n+}] = [A^{n-}] = 5.0 \times 10^{-5}$ M in a mixture of CH₃CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). $\lambda_{ex} = 340$ nm.

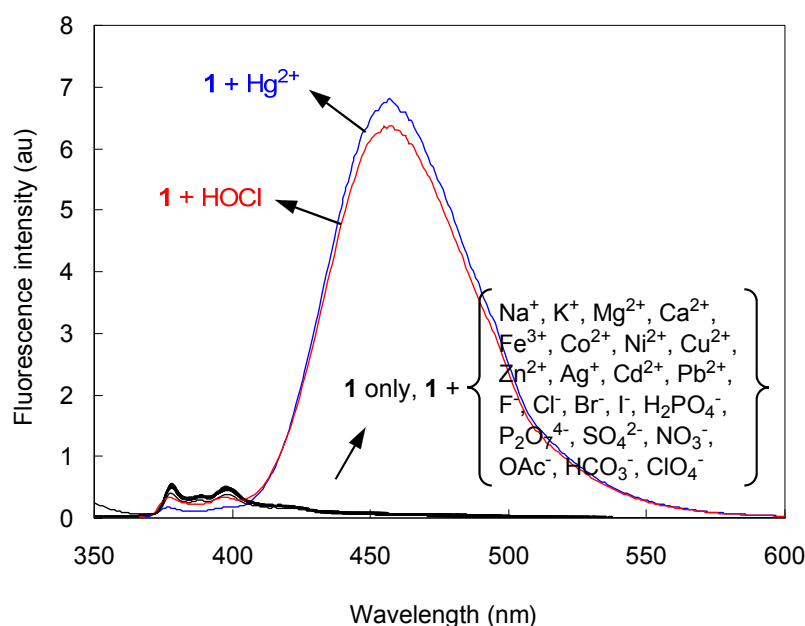


Fig. S3. Changes in fluorescence intensity of **1** in the presence of HOCl and representative metal ions. Measured at 457 nm. $[1] = 5.0 \times 10^{-6}$ M, $[M^{n+}] = [HOCl] = 5.0 \times 10^{-5}$ M in a mixture of CH₃CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). $\lambda_{ex} = 340$ nm. Resin means treatment with Chelex-100 chelating resin.

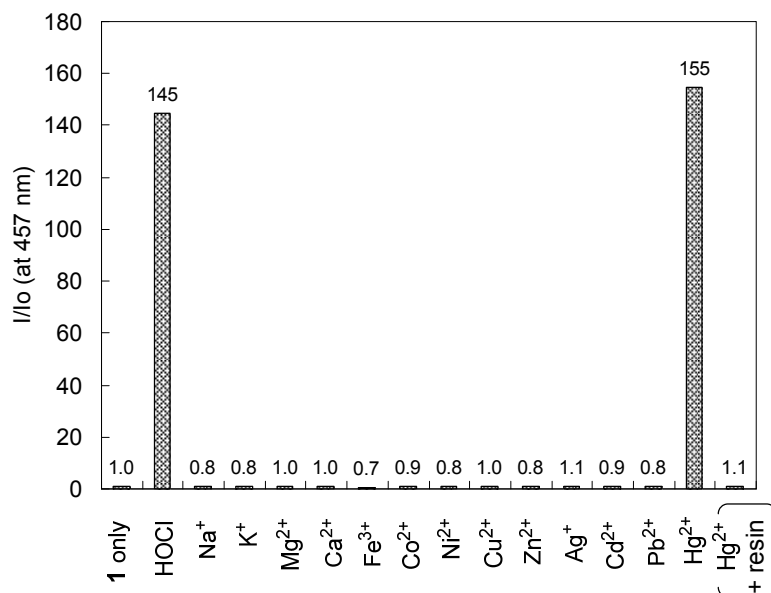


Fig. S4. Changes in fluorescence intensity of **1** in the presence of HOCl and representative anions. Measured at 457 nm. $[1] = 5.0 \times 10^{-6}$ M, $[A^{n-}] = [HOCl] = 5.0 \times 10^{-5}$ M in a mixture of CH₃CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). $\lambda_{ex} = 340$ nm.

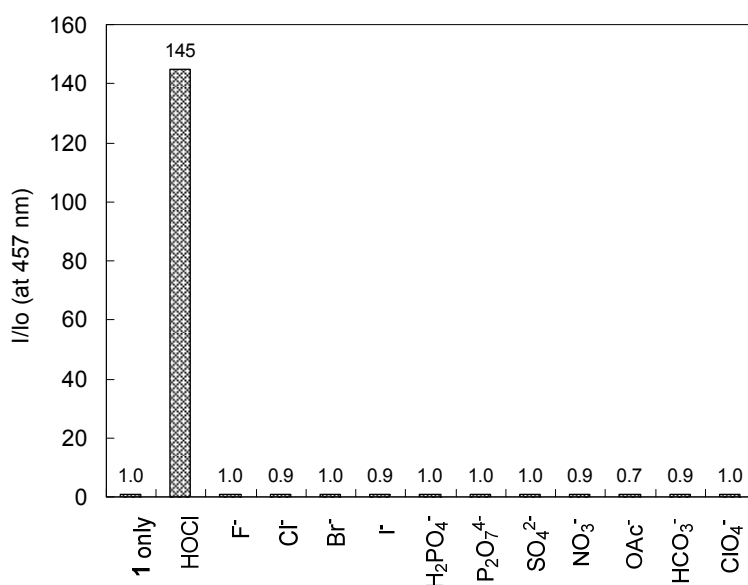


Fig. S5. Time course plot for the changes in fluorescence intensity at 457 nm of **1** in the absence and presence of HOCl. $[1] = 5.0 \times 10^{-6}$ M, $[HOCl] = 5.0 \times 10^{-5}$ M in a mixture of CH_3CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). $\lambda_{ex} = 340$ nm.

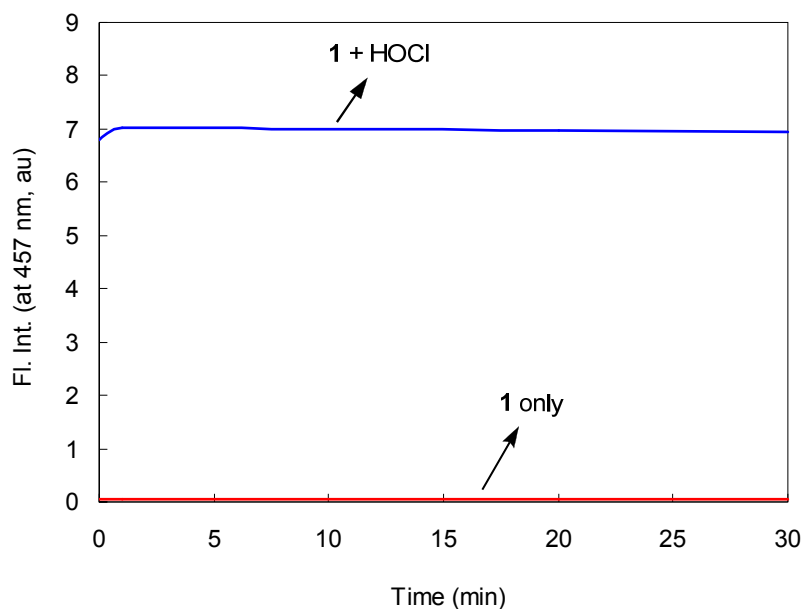


Fig. S6. UV-vis spectra of **1** and **2** in the absence and presence of HOCl. $[1] = [2] = 2.0 \times 10^{-5}$ M, $[HOCl] = 2.0 \times 10^{-4}$ M in a mixture of CH_3CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v).

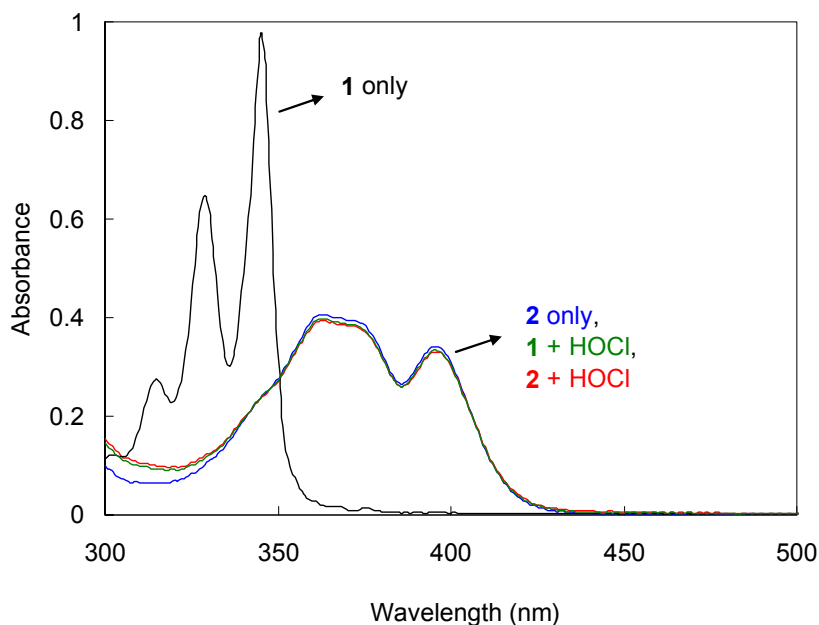


Fig. S7. Changes in fluorescence intensity of **1** and **2** in the absence and presence of HOCl. $[1] = [2] = 5.0 \times 10^{-6}$ M, $[HOCl] = 5.0 \times 10^{-5}$ M in a mixture of CH_3CN and acetate buffer solution (pH = 5.0, 10 mM), (1:1, v/v). $\lambda_{ex} = 340$ nm.

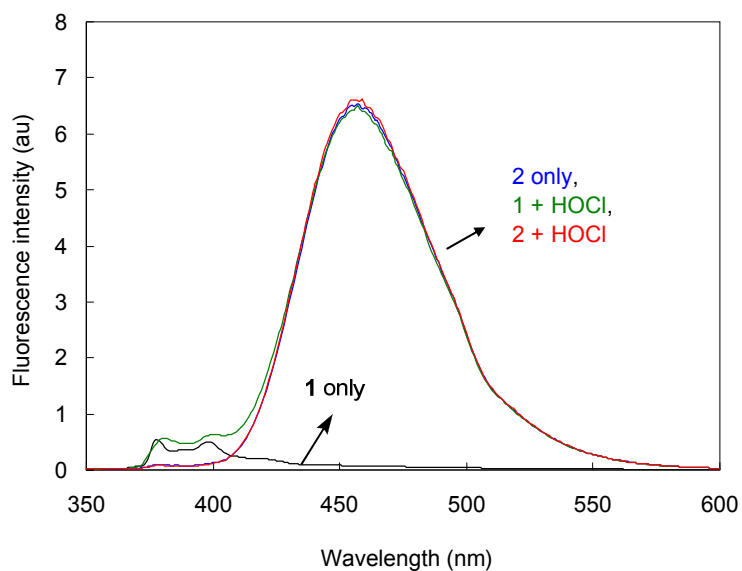


Fig. S8. ^1H NMR spectrum of **1** in CDCl_3 .

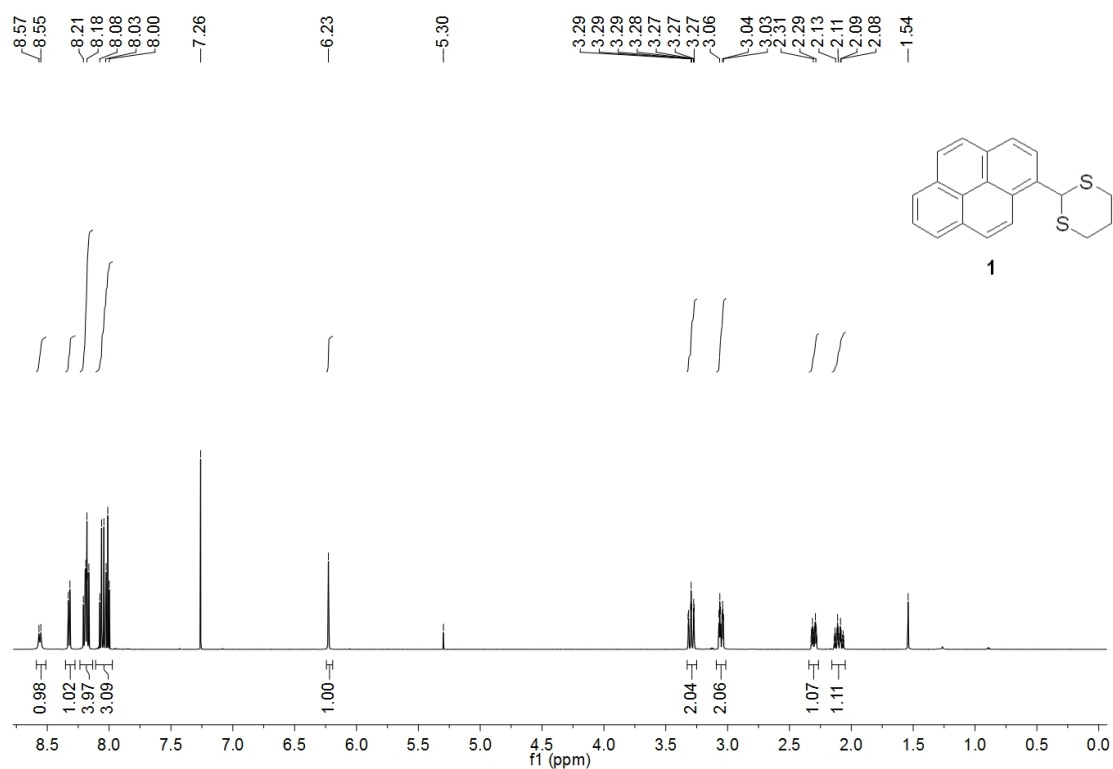


Fig. S9. ^{13}C NMR spectrum of **1** in CDCl_3 .

