Supporting Information

A reusable and naked-eye molecular probe with aggregation-induced emission (AIE) characteristics for hydrazine detection

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Fig. S1 ¹H NMR spectrum of compound 3.
**Fig. S2** $^{13}$C NMR spectrum of compound 3.

**Fig. S3** $^{1}$H NMR spectrum of compound 4.
Fig. S4 \textsuperscript{13}C NMR spectrum of compound 4.

Fig. S5 \textsuperscript{1}H NMR spectrum of compound 5.
Fig. S6 $^{13}$C NMR spectrum of compound 5.

Fig. S7 $^1$H NMR spectrum of compound 6.
Fig. S8 $^{13}$C NMR spectrum of compound 6.

Fig. S9 $^1$H NMR spectrum of compound 7.
Fig. S10 The photograph of TLC plates pre-stained with probe 6 (1) and incubated with various cations (Na⁺, K⁺, Mg²⁺ and Ca²⁺, 10 mM), anions (SO₃²⁻, S₂O₃²⁻, SO₄²⁻ and NO₃⁻, 10 mM), amino acids (glycine, aspartic acid, lysine and cysteine, 10 mM), GSH (10 mM), D-glucose (10 mM), BSA (1 mg/mL) and aqueous hydrazine solution (10 mM) (2) and incubated with aqueous hydrazine solution (10 mM) alone. Top: under white light illumination; bottom: under 365 nm UV light illumination.