Supporting Information

A novel fluorescent sensor based on Imidazo[1,2-a]pyridine for

 \mathbf{Zn}^{2+}

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Fig. S1 Fluorescence spectra of L1-Zn²⁺ in C₂H₅OH-H₂O (9:1, v:v) 10 mM of HEPES buffer solution at pH 7.4. $\lambda_{ex} = 375$ nm. (a) the solution of L1 was used without stored; (b) the solution of L1 was used after stored for 24 h.



Fig. S2 Time dependent fluorescence response of L1 (20 μ M) at λ =462 nm in the presence of Zn²⁺ (1 eq.) in C₂H₅OH-H₂O (9:1, v:v) 10 mM of HEPES buffer solution at pH 7.4. λ_{ex} = 375 nm.



Fig. S3 Changes in absorption spectroscopy of L1 (20 μ M) with different ions (40 μ M) in C₂H₅OH-H₂O (9:1, v:v) 10 mM of HEPES buffer solution at pH 7.4.



Fig. S4 Color response of L1 with different metal ions under the normal room light.



Fig. S5 Benesi-Hilderbrand plot of L1 with Zn²⁺.



Fig. S6 Job's plot of the complex formed by $[Zn^{2+}]/([Zn^{2+}]+[L1])$. The total concentration of L1 and Zn^{2+} was 100 μ M. $\lambda_{ex} = 375$ nm.



Fig. S7 The FTIR spectrum of L1.



Fig. S8 ¹H NMR spectrum of compound L1 (N'-[(1E)-quinolin-2ylmethylidene]imidazo[1,2-a]pyridine-2-carbohydrazide) in DMSO-d6.







Fig. S10 The mass spectrum of compound L1.