

Supporting Information

Highly Selective Fluorescent Probe for the Detection of Copper (II)

and Its Application in Live Cell Imaging

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1. Structure characterization

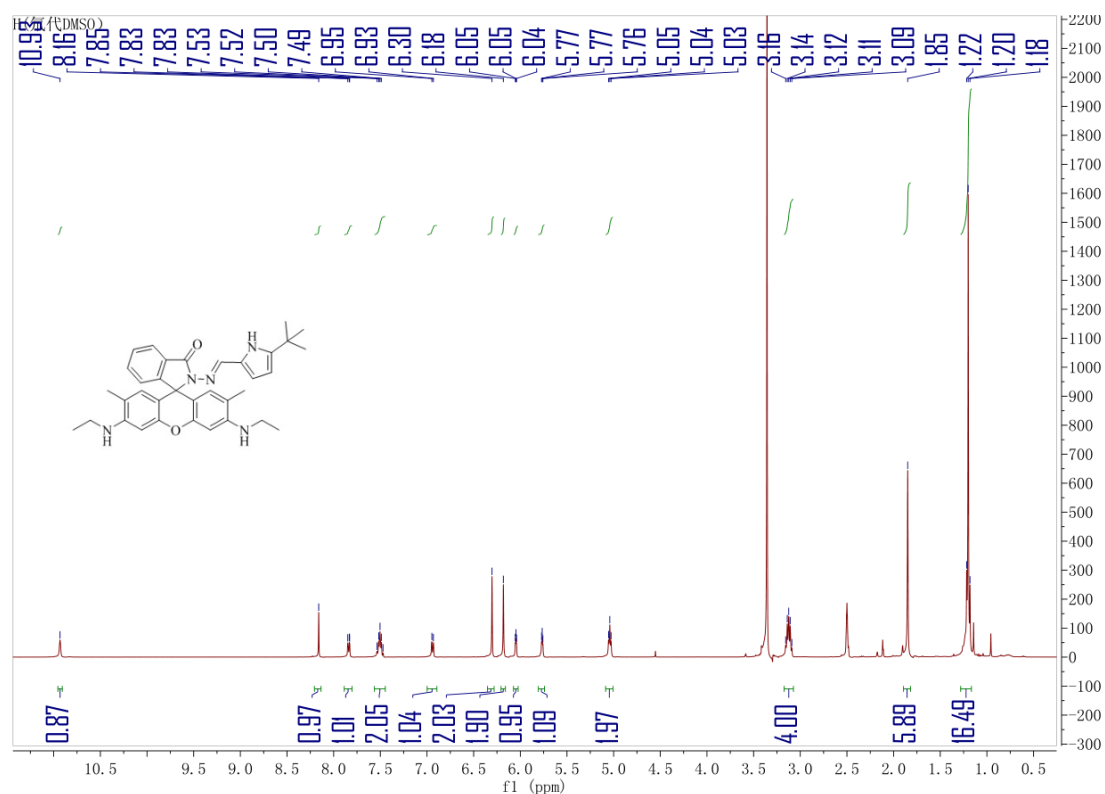


Figure S1 ¹H NMR of compound **L1** (600 MHz, DMSO-d₆).

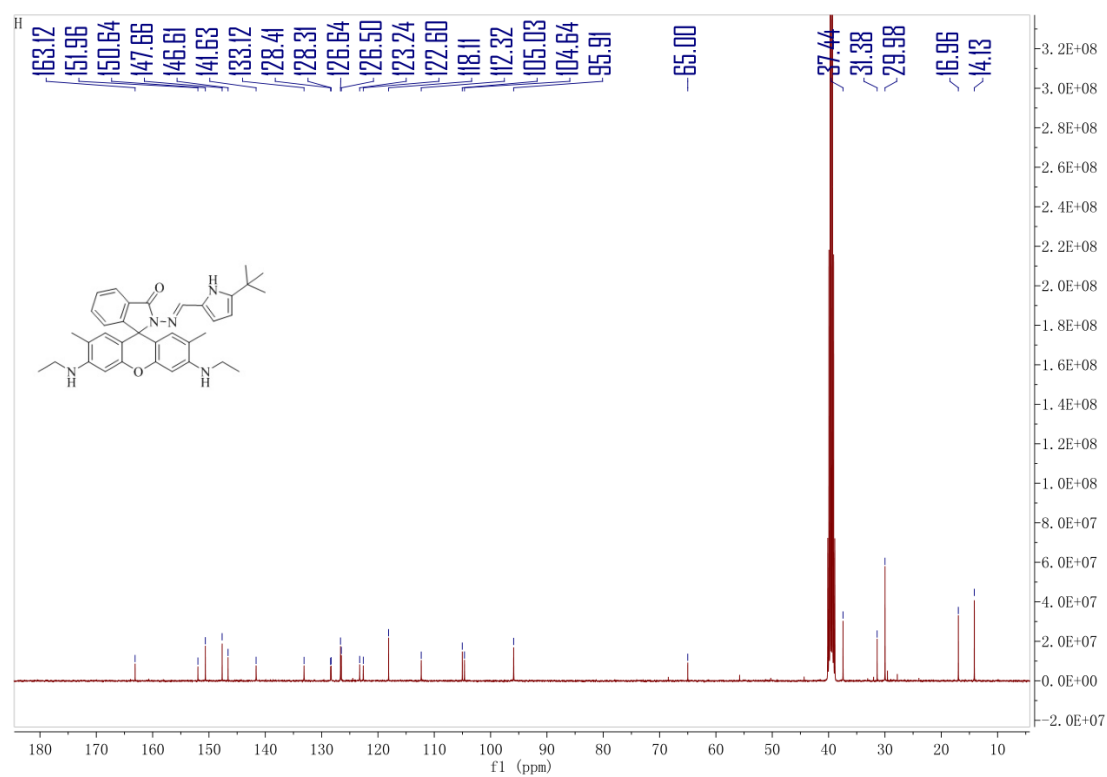


Figure S2 ¹³C NMR of compound **L1** (150 MHz, DMSO-d₆).

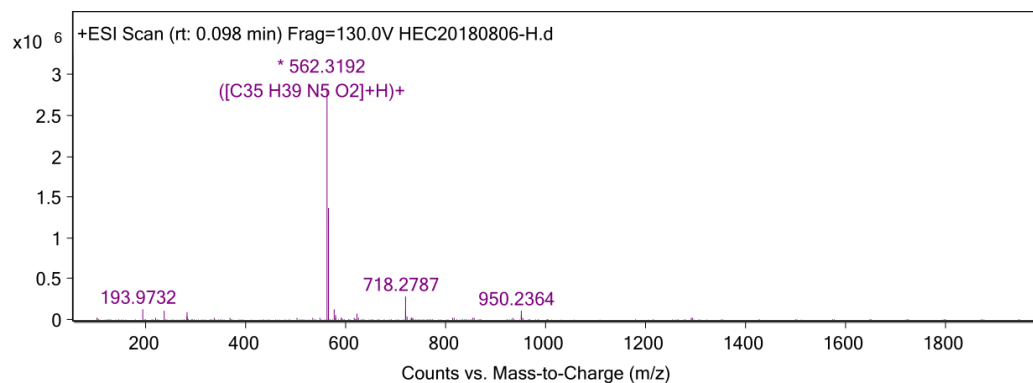


Figure S3 High resolution mass spectra of **L1**.

2. Additional spectrum

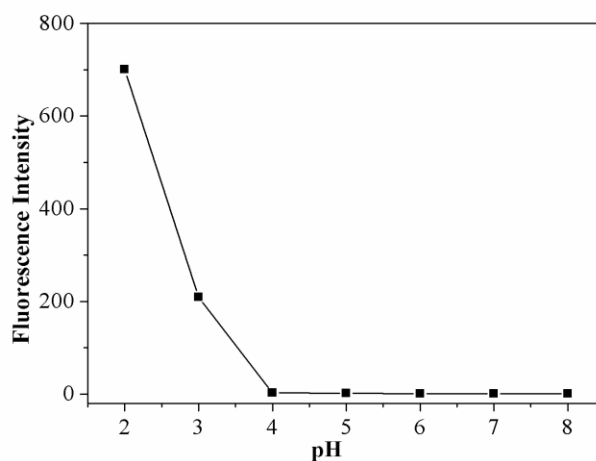


Figure S4 Effect of pH on fluorescence intensity at 545 nm of **L1** (10 μ M) in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution (1:1, v/v). Excitation was performed at 500 nm.

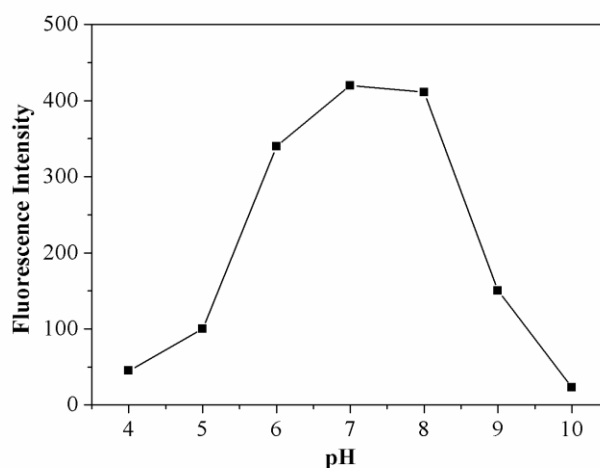


Figure S5 Effect of pH on fluorescence intensity at 545 nm of **L1** (10 μ M) in the presence of 10 μ M Cu^{2+} in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution (1:1, v/v). Excitation was performed at 500 nm.

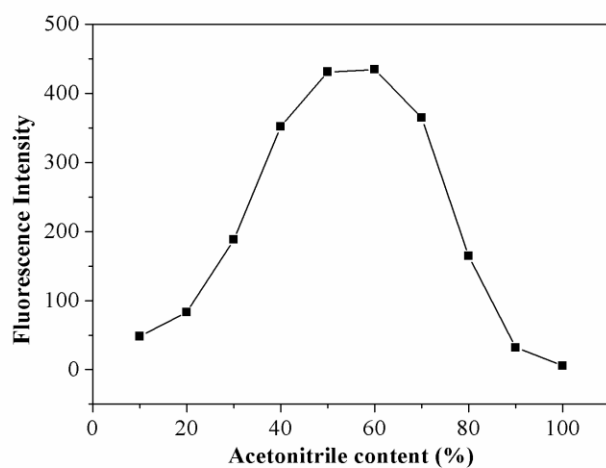


Figure S6 Effect of acetonitrile content on fluorescence intensity of **L1** (10 μM) in the presence of 10 μM Cu^{2+} in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution. Excitation was performed at 500 nm.

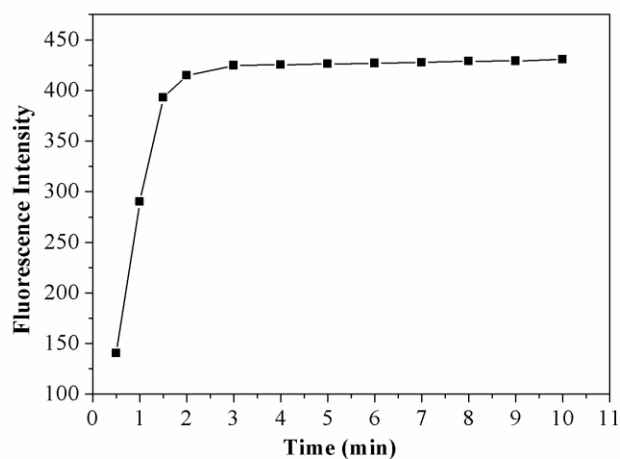


Figure S7 Time course of the response of **L1** (10 μM) to 1 equiv. of Cu^{2+} in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution.

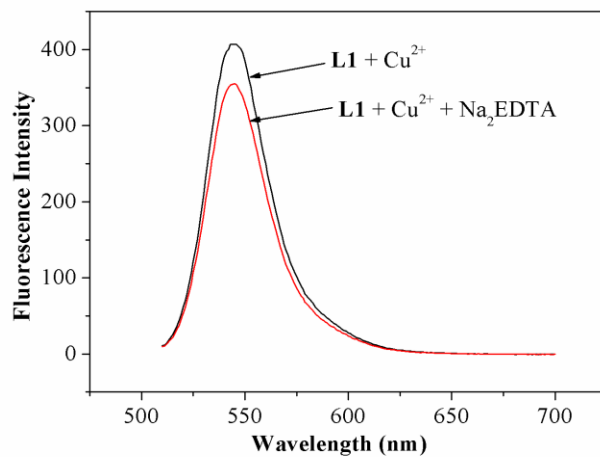


Figure S8 Fluorescence spectra of **L1** (10 μM) with addition of 10 μM Cu^{2+} in the absence and presence of 10 equiv. Na_2EDTA in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution (1:1, v/v).

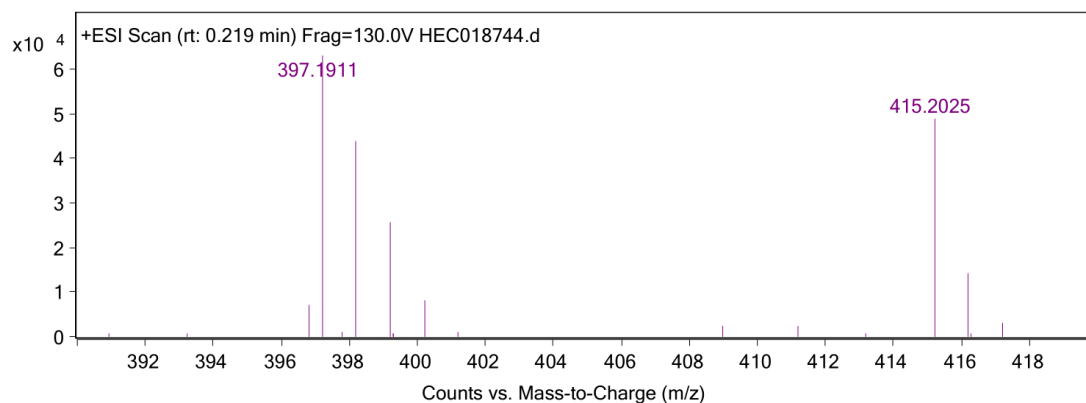


Figure S9 Mass spectrum for the reaction products of Cu^{2+} and **L1** in $\text{CH}_3\text{CN}/\text{H}_2\text{O}$ solution (1:1, v/v).

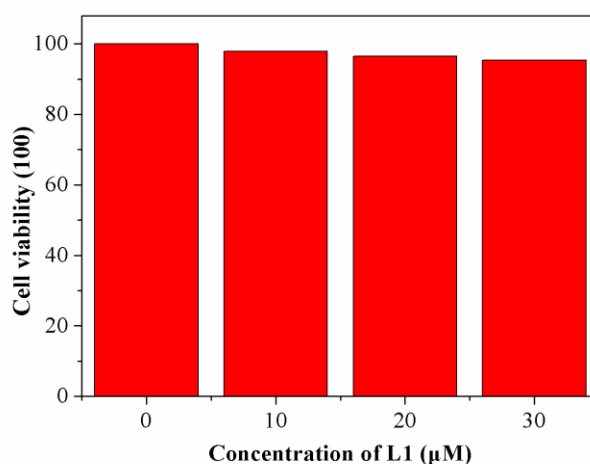


Figure S10 The viability of MCF7 cells incubated with **L1** of different concentrations.