

## Supplementary Material For

### New fluorescent probe for Zn<sup>2+</sup> imaging in living cells and plants

**Co-authors:**

Rong Shen<sup>1,2</sup>, Email: [shenr12@lzu.edu.cn](mailto:shenr12@lzu.edu.cn)

Di Liu<sup>1,2</sup>, Email: [liud2013@lzu.edu.cn](mailto:liud2013@lzu.edu.cn)

Chenchen Hou<sup>1,2</sup>, Email: [houchch14@lzu.edu.cn](mailto:houchch14@lzu.edu.cn)

Ju Cheng<sup>1,2,3</sup>, Email: [chengj@lzu.edu.cn](mailto:chengj@lzu.edu.cn)

Decheng Bai<sup>1,2,3\*</sup>, Corresponding author, Email: [bdc@lzu.edu.cn](mailto:bdc@lzu.edu.cn)

**Affiliations:**

<sup>1</sup>Institute of Integrated Traditional Chinese and Western Medicine, School of Basic Medical Sciences, Lanzhou University, Lanzhou, 730000, Gansu, China;

<sup>2</sup>Key Laboratory of Preclinical Study for New Drugs of Gansu Province, Lanzhou University, Lanzhou 730000, Gansu, China;

<sup>3</sup>Institute of Operative Surgery, School of Basic Medical Sciences, Lanzhou University, Lanzhou, Lanzhou 730000, Gansu, China;

**Corresponding author:**

Decheng Bai, Key Laboratory of Preclinical Study for New Drugs of Gansu Province, School of Basic Medical Sciences, Lanzhou University, 199 West Donggang Road, Lanzhou 730000, Gansu, China.

Tel: +86 13088758222;

Email: [bdc@lzu.edu.cn](mailto:bdc@lzu.edu.cn)

## Content

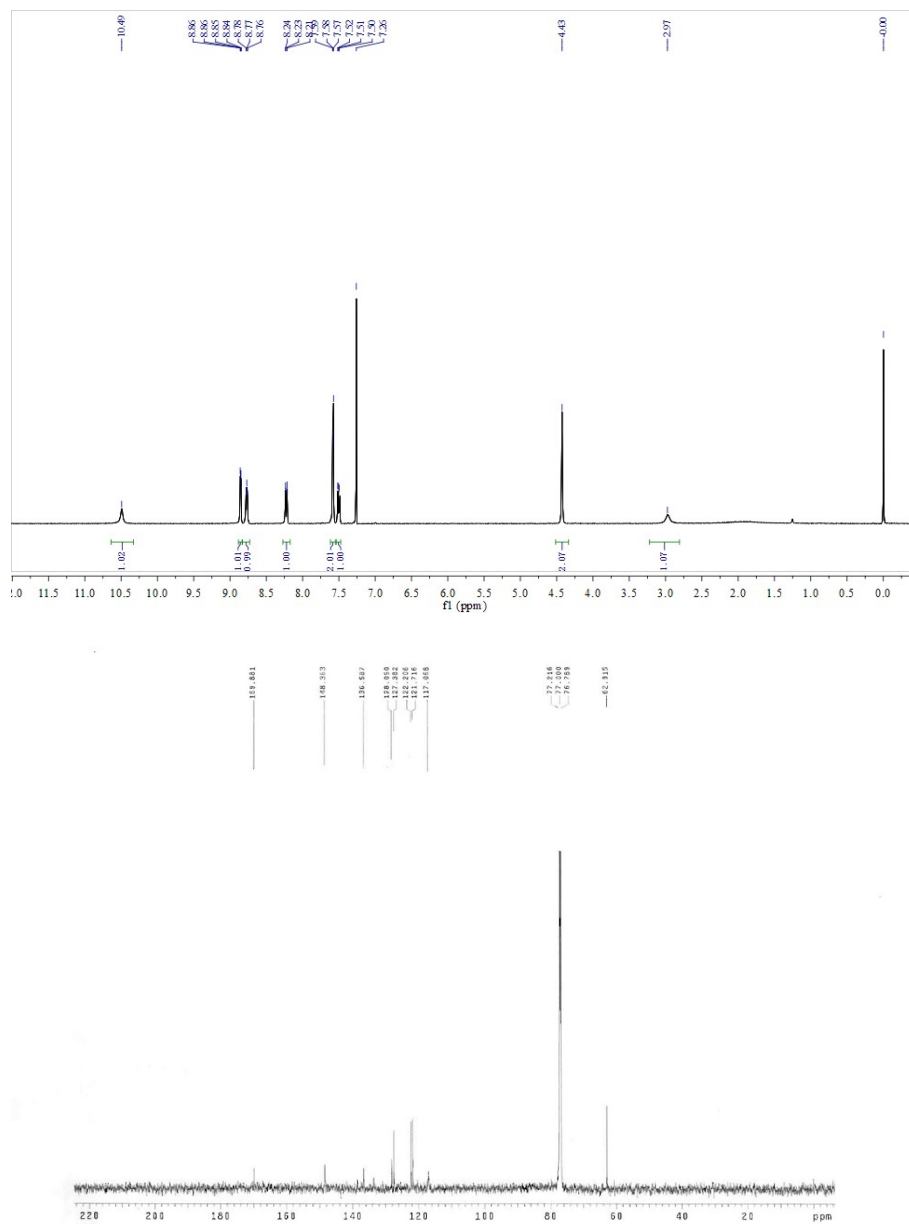
1. Fig. S1

2. Fig. S2

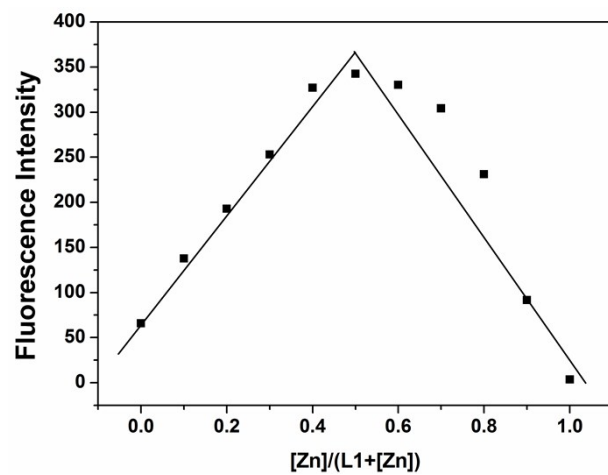
3. Fig. S3

4. Fig. S4

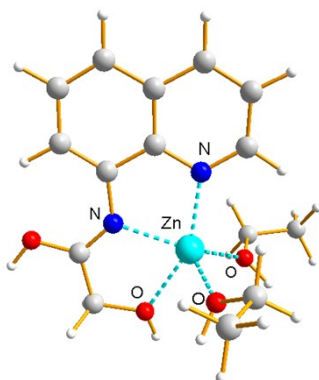
1. Fig. S1  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR spectra of L1.



2. Fig. S2 Job's plots according to the method for continuous variations, indicating the 1:1 stoichiometry for L1 and  $\text{Zn}^{2+}$ .



3. Fig. S3 Optimized configuration of L1/Zn<sup>2+</sup> complex.



4. Fig. S4 The “Micro-CT” scanning of the Cd<sup>2+</sup> treated cells layer by layer.

