

**Supplementary Material for**

**Three Pt(II) complexes based on Thiosemicarbazone: synthesis,  
HSA interaction, cytotoxicity, apoptosis and cell cycle arrest**

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Jing-Yuan Xu<sup>a,\*</sup>

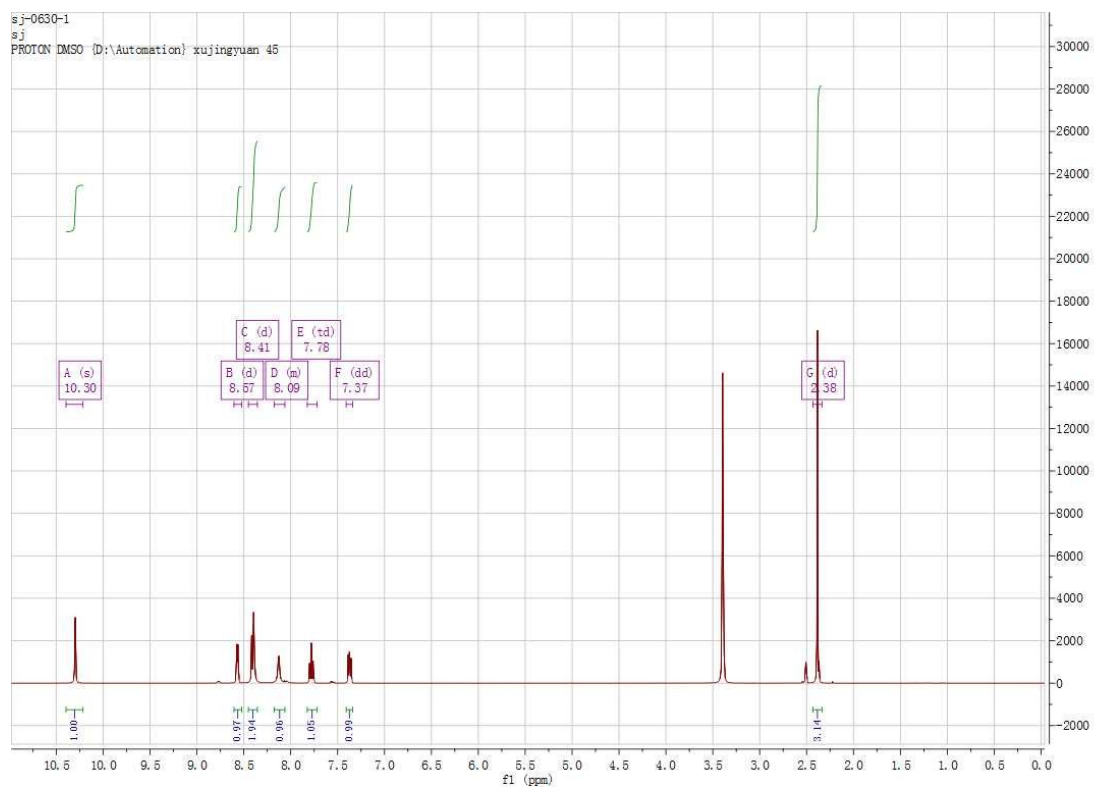
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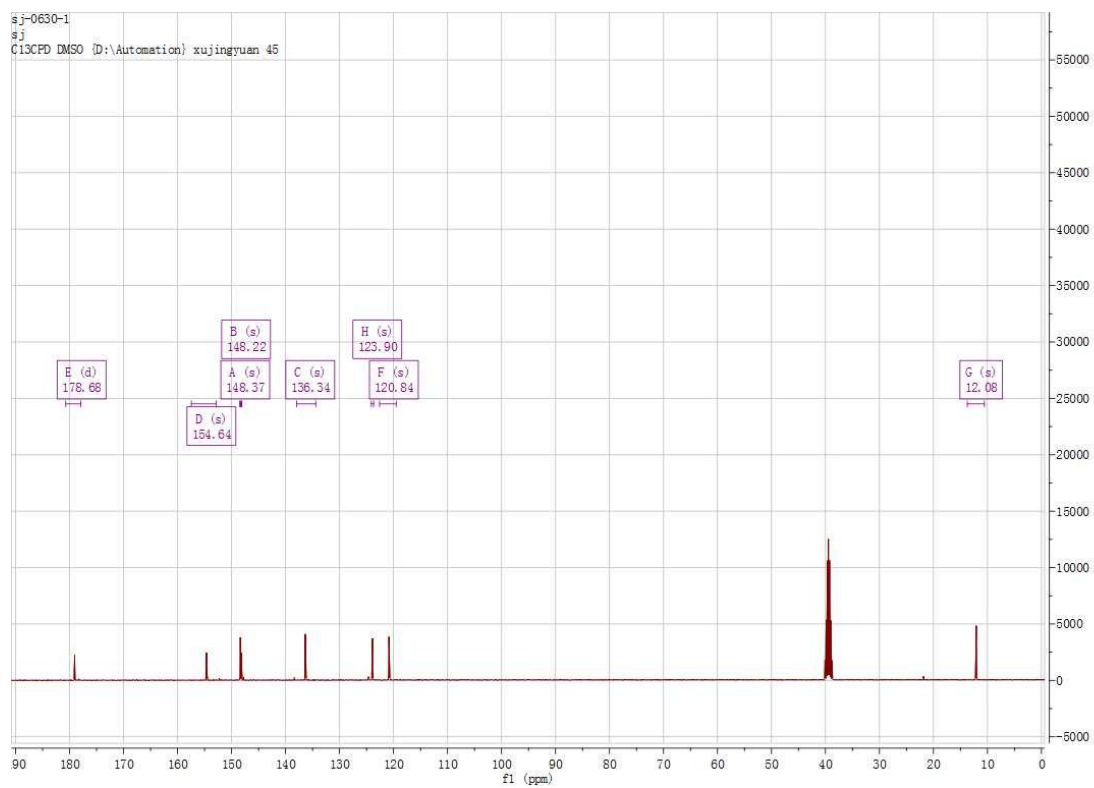
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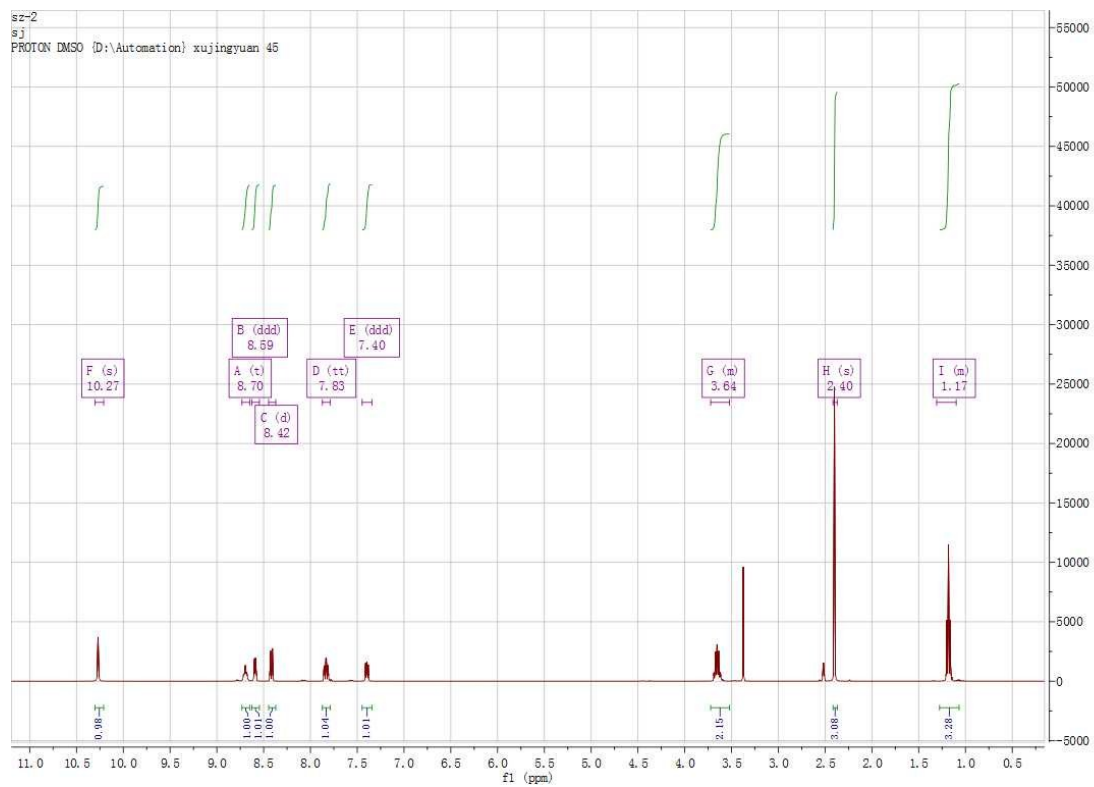
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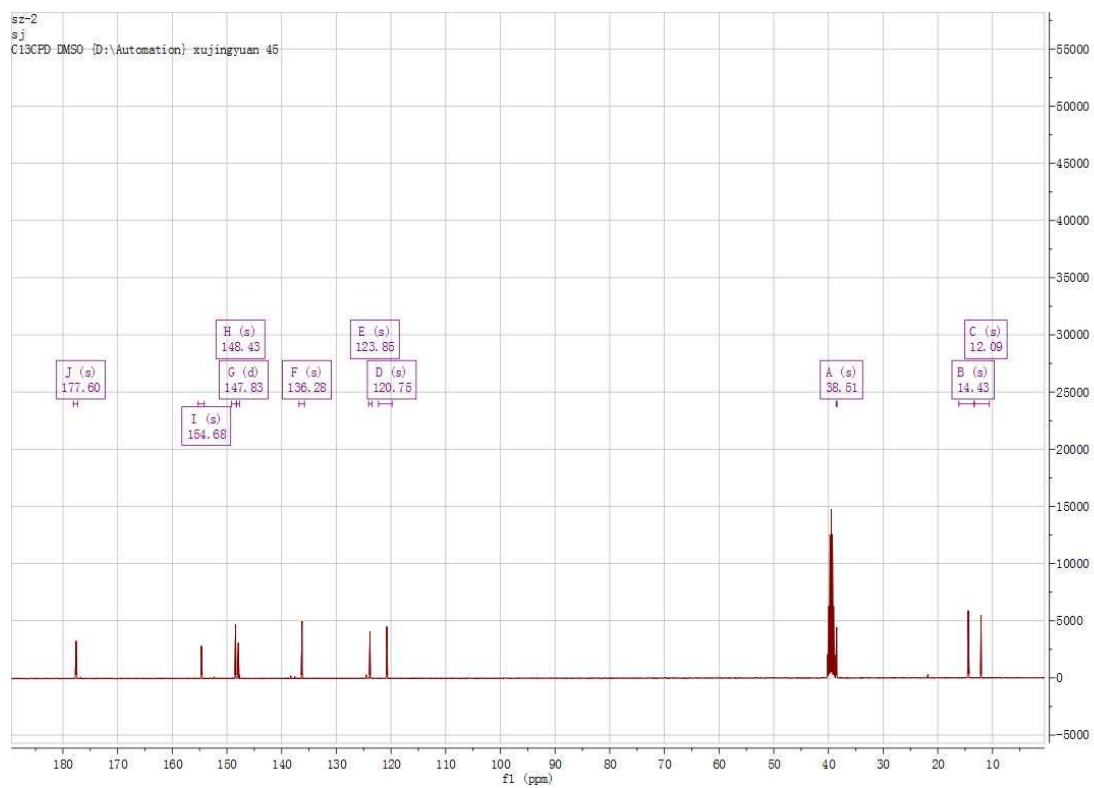
**Fig. S1-1.**  $^1\text{H}$  NMR spectrum of Ligand 1.



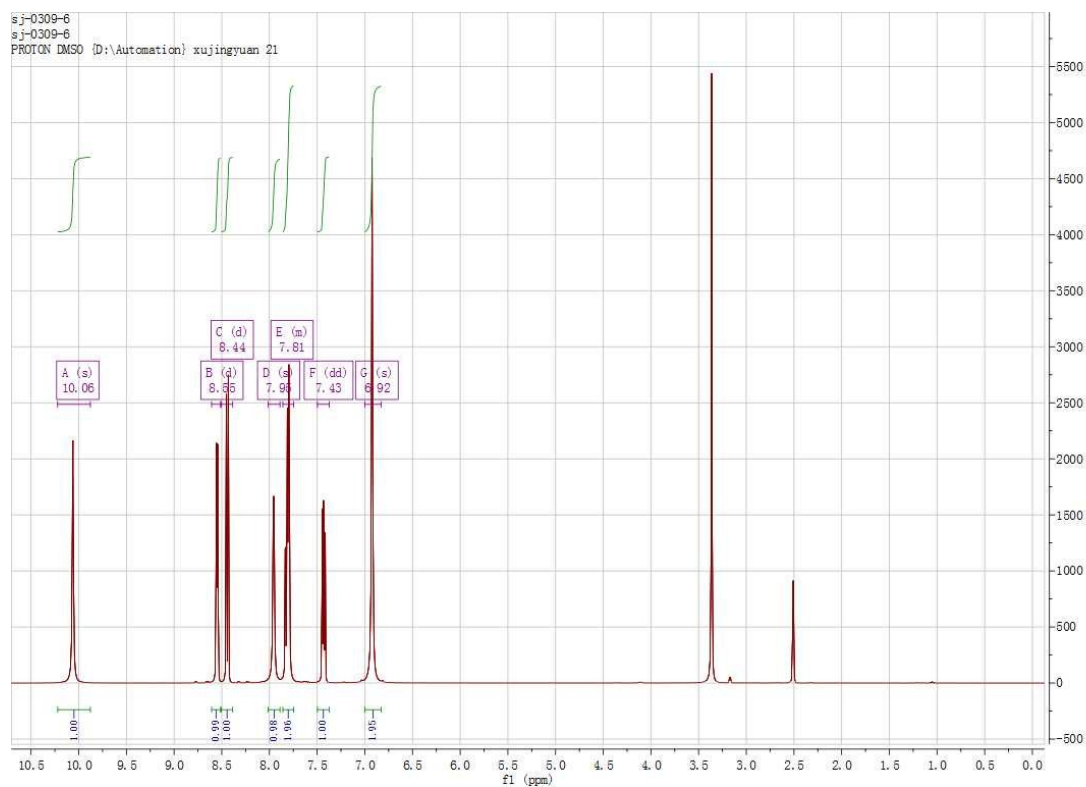
**Fig. S1-2.**  $^{13}\text{C}$  NMR spectrum of Ligand 1.



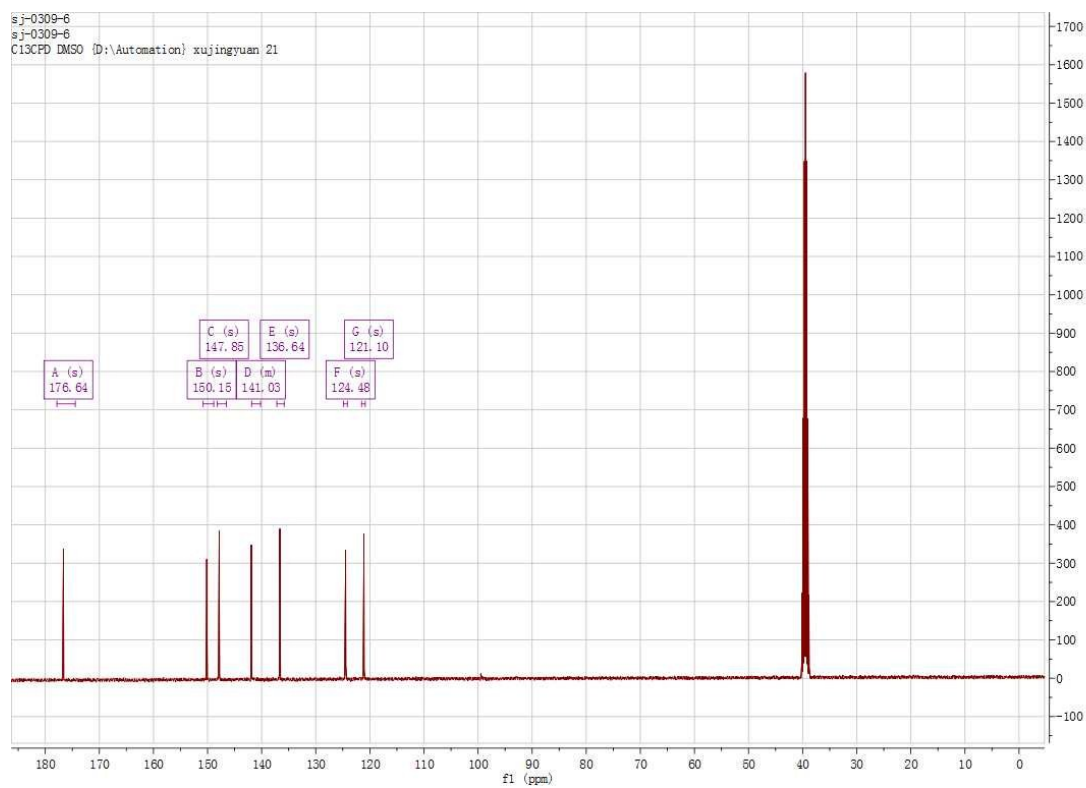
**Fig. S1-3.**  $^1\text{H}$  NMR spectrum of Ligand 2.



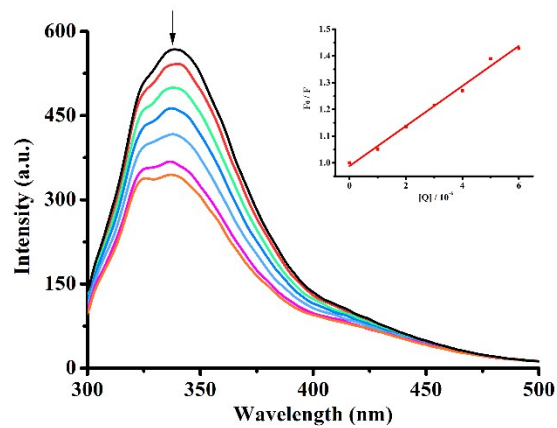
**Fig. S1-4.**  $^{13}\text{C}$  NMR spectrum of Ligand 2.



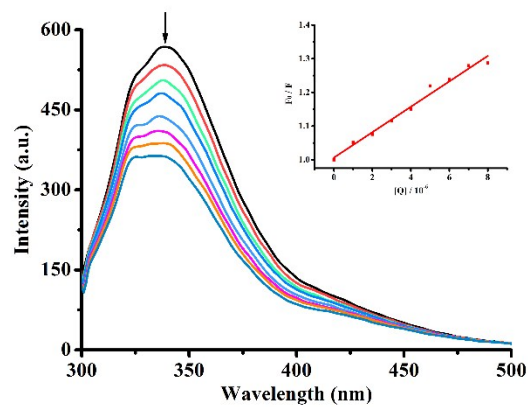
**Fig. S1-5.**  $^1\text{H}$  NMR spectrum of Ligand 3.



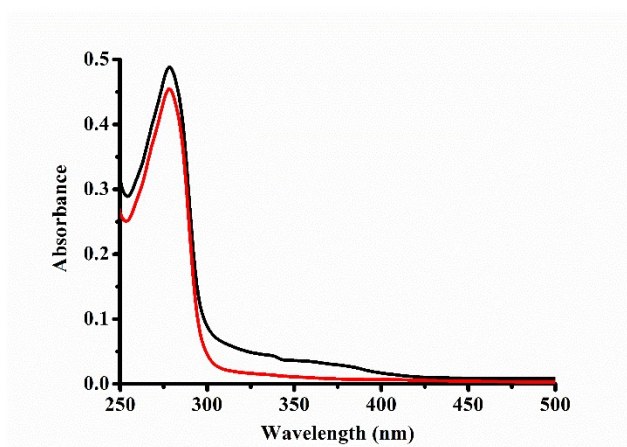
**Fig. S1-6.**  $^{13}\text{C}$  NMR spectrum of Ligand 3.



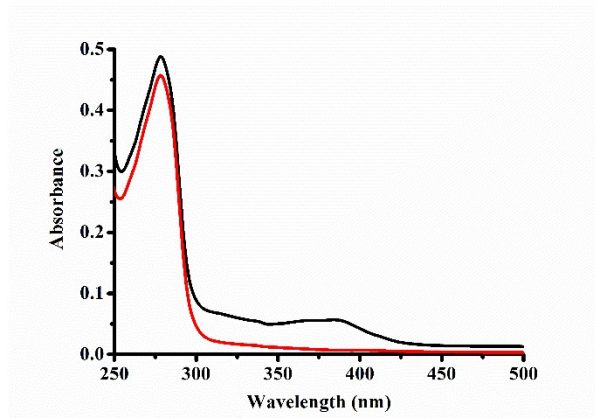
**Fig. S2-1.** Fluorescence spectra of HSA in the different concentrations of **1** at room temperature.



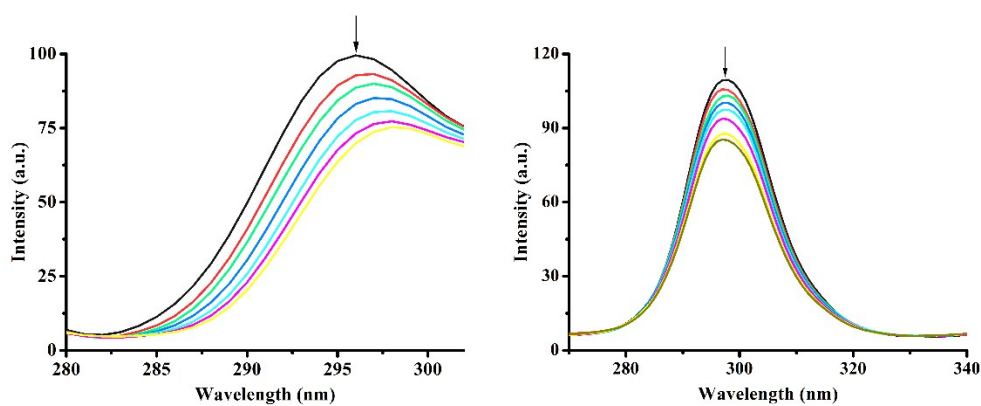
**Fig. S2-2.** Fluorescence spectra of HSA in the different concentrations of **2** at room temperature.



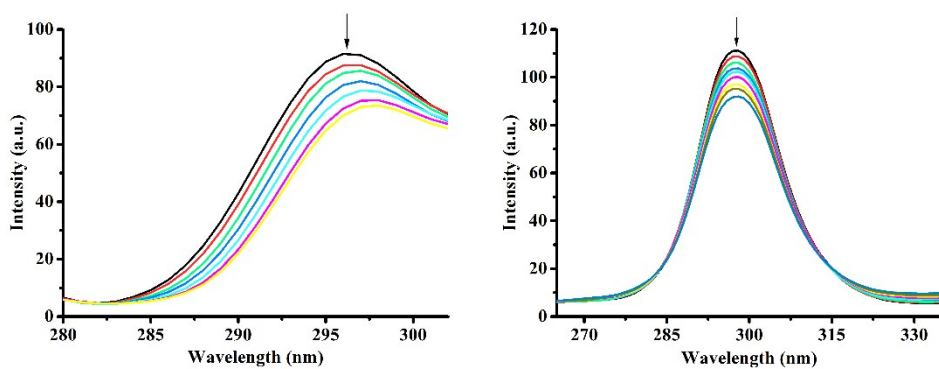
**Fig. S2-3.** UV-vis absorption spectra of HSA in the absence and presence of **1**.



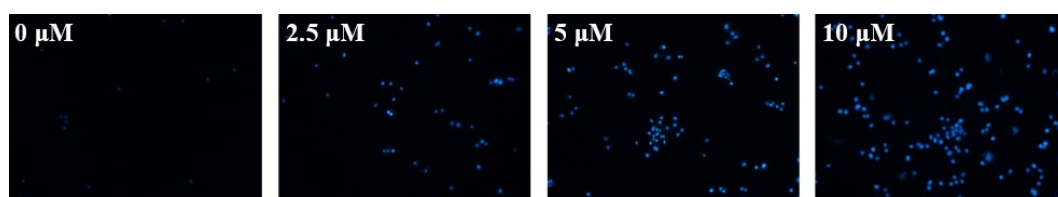
**Fig. S2-4.** UV-vis absorption spectra of HSA in the absence and presence of **2**.



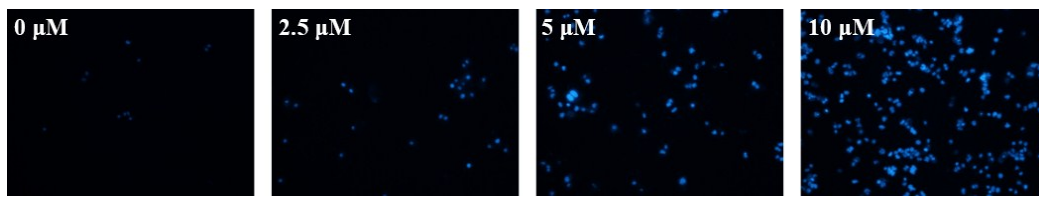
**Fig. S2-5.** Synchronous fluorescence spectra of HSA upon addition of **1**.



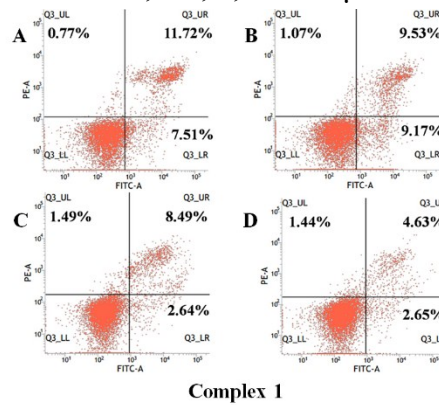
**Fig. S2-6.** Synchronous fluorescence spectra of HSA upon addition of **2**.



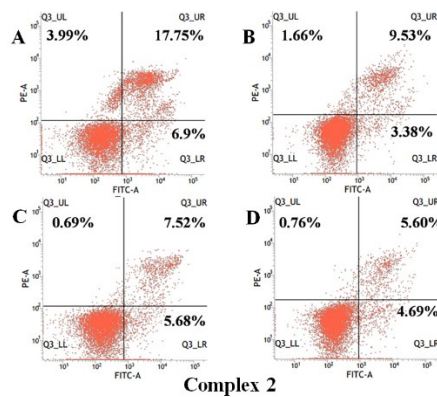
**Fig. S3-1.** Hoechst 33342 staining detected apoptosis in HeLa cells after treatment by **1** for 48 h at the concentrations of 0, 2.5, 5, and 10  $\mu\text{M}$ .



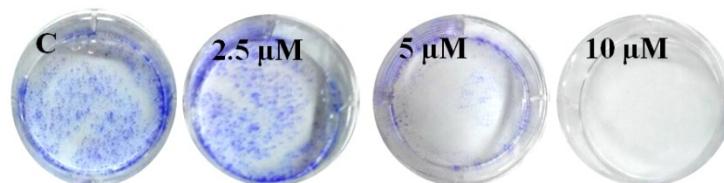
**Fig. S3-2.** Hoechst 33342 staining detected apoptosis in HeLa cells after treatment by **2** for 48 h at the concentrations of 0, 2.5, 5, and 10  $\mu\text{M}$ .



**Fig. S4-1.** The quantitative analysis of the proportion of viable, necrosis and apoptosis cells against HeLa cells after the treatment with **1** for 48 h at concentration of 0, 2.5, 5, and 10  $\mu\text{M}$ .



**Fig. S4-2.** The quantitative analysis of the proportion of viable, necrosis and apoptosis cells against HeLa cells after the treatment with **2** for 48 h at concentration of 0, 2.5, 5, and 10  $\mu\text{M}$ .



**Fig. S5.** Clonogenic assay (crystal violet staining) in HeLa cells exposed to varying concentrations of **3**.