Electronic Supplementary Information

Fluorescent monofunctional platinum complex derived from NBD visualizes its distribution behavior in tumour cells

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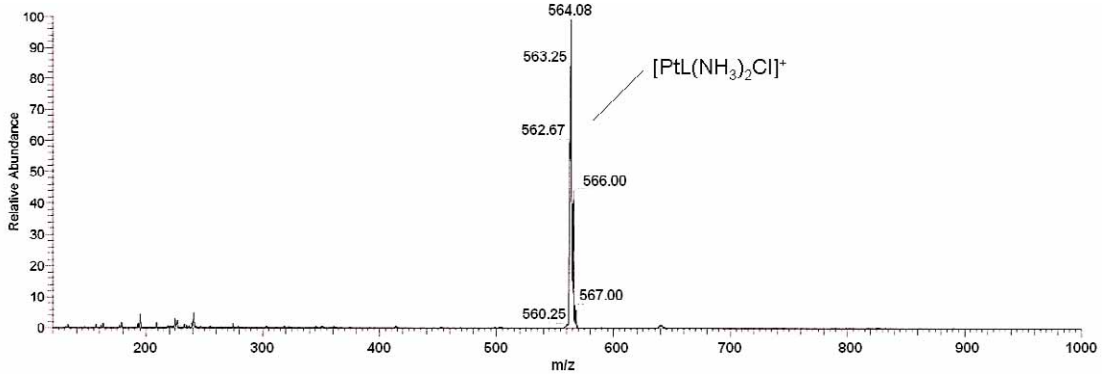
Contents



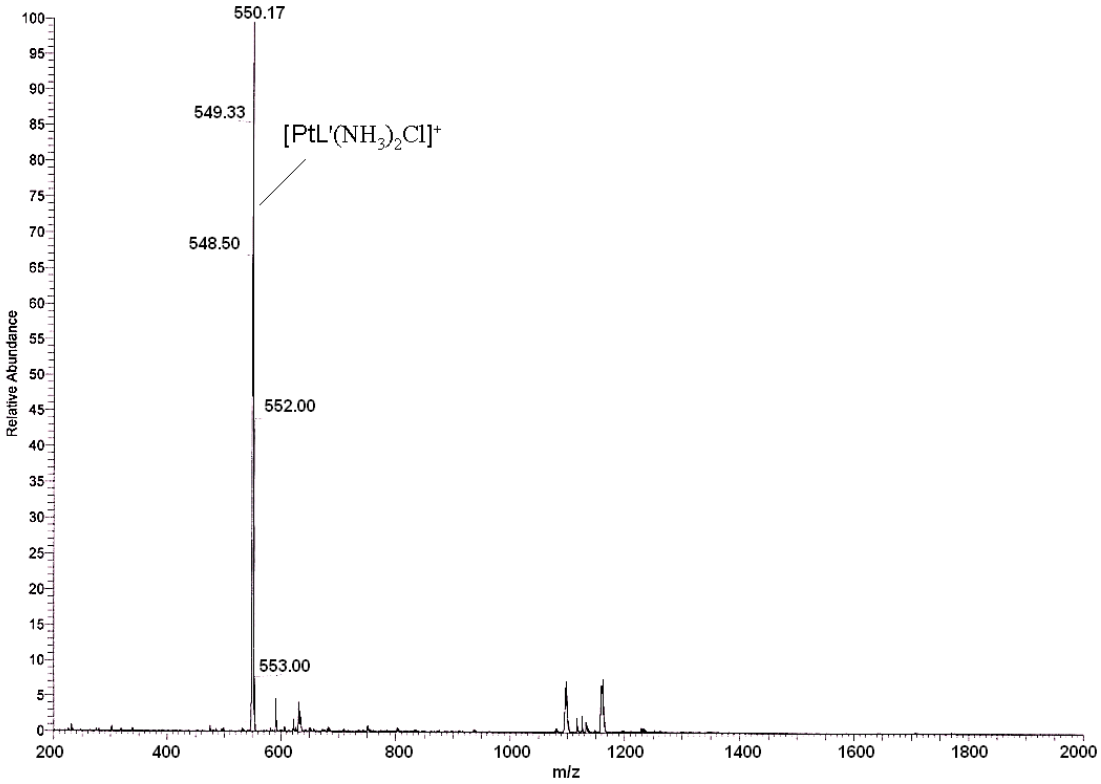


Fig. S1. ESI-MS spectra of complexes **1** and **2** in methanol (positive mode). Assignemts: m/z 564.08, $[PtL(NH_3)_2Cl]^+$ ($C_{14}H_{19}N_7O_3ClPt$, calcd 563.09); m/z 550.17, $[PtL'(NH_3)_2Cl]^+$ ($C_{13}H_{17}N_7O_3ClPt$, calcd 549.07).

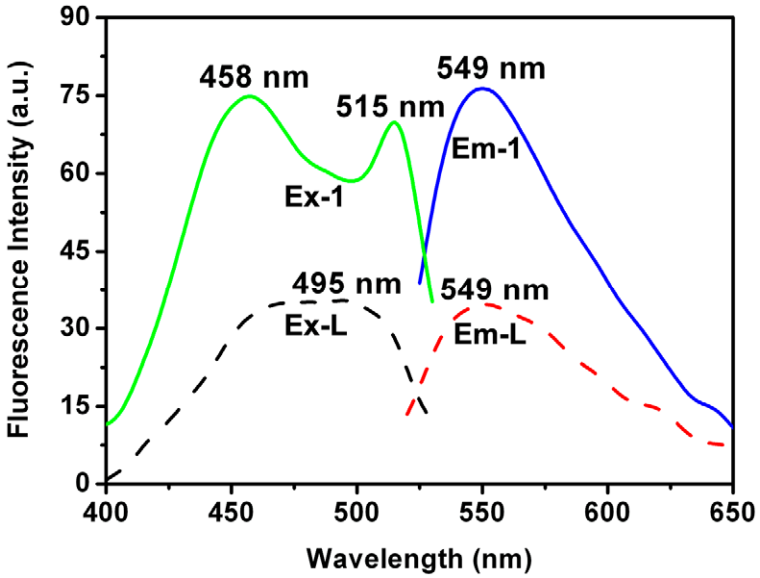


Fig. S2. Excitation (Ex) and emission (Em) spectra of complex **1** and ligand L (0.01 mM) in PBS buffer.

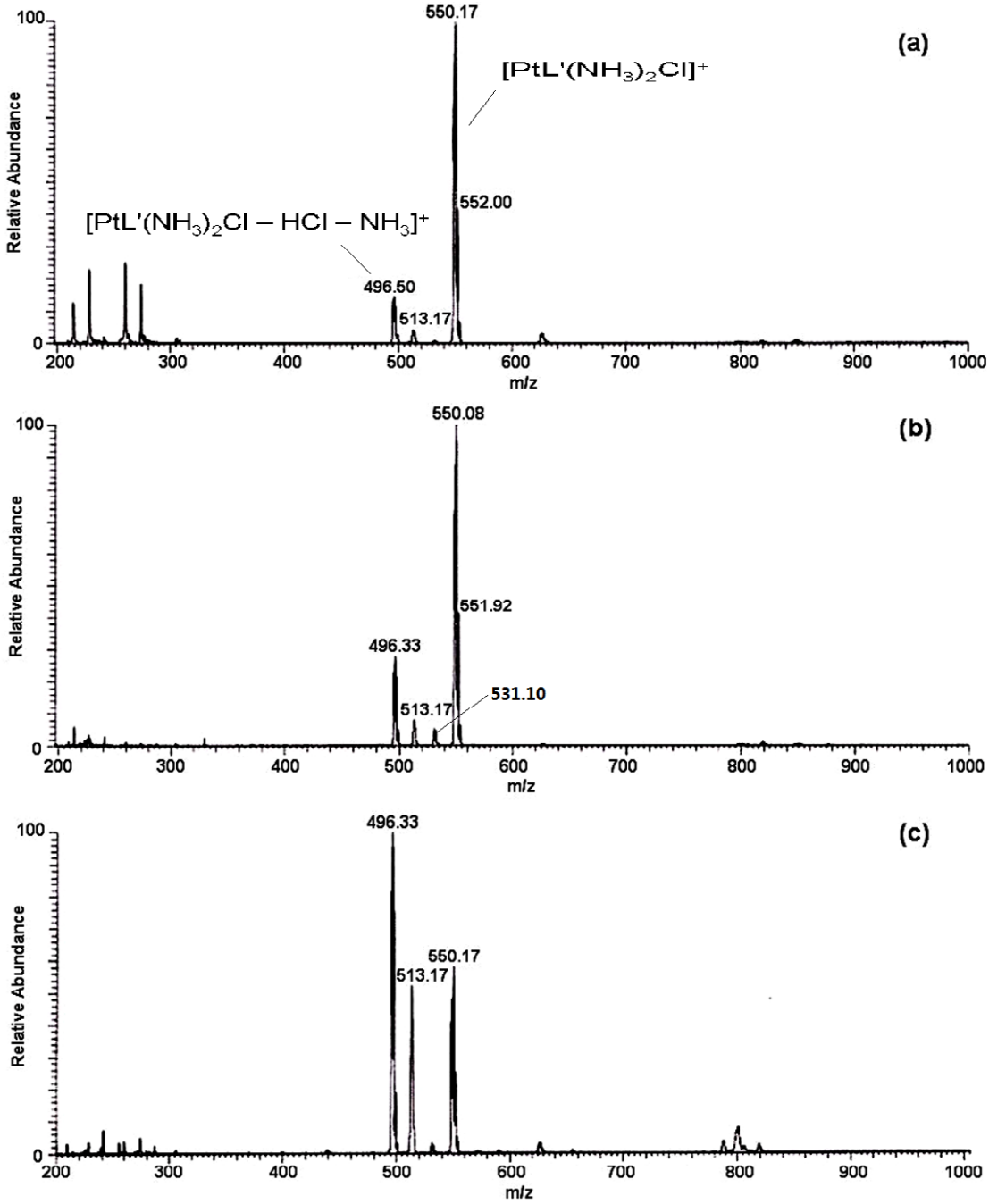
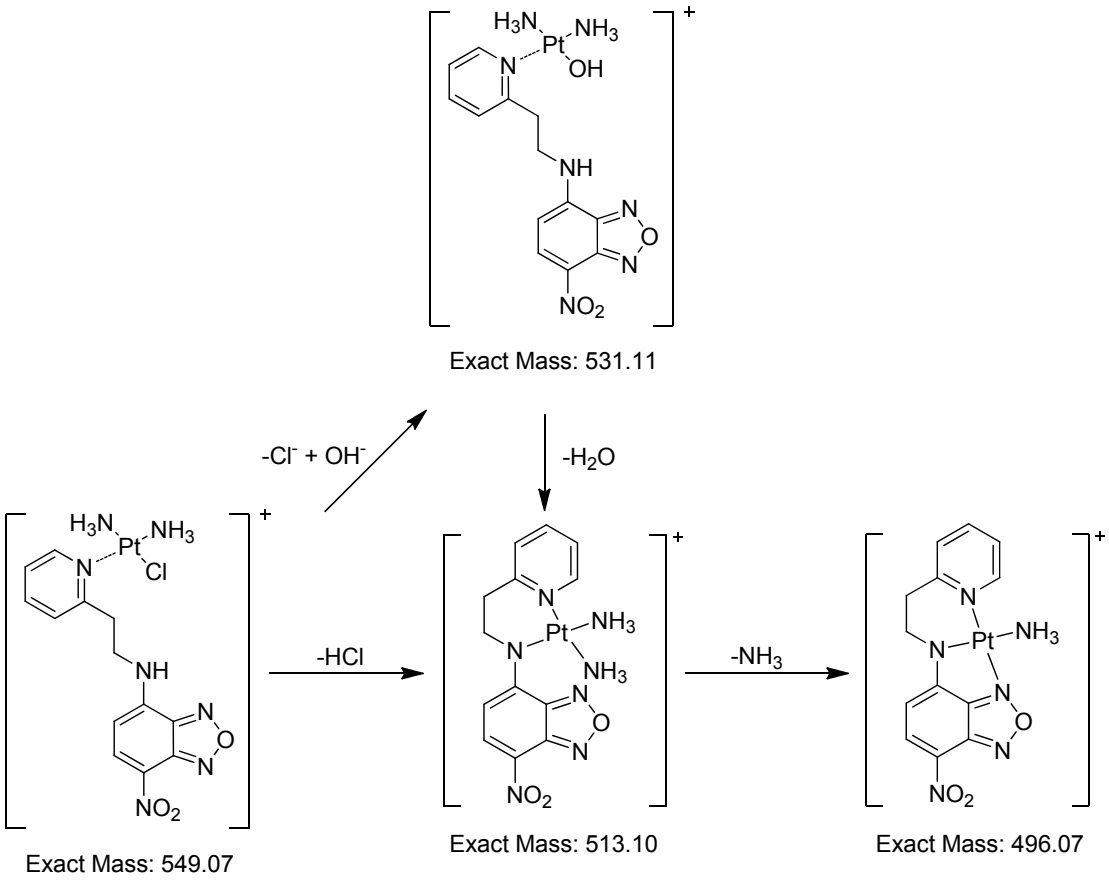


Fig. S3. Time-dependent ESI-MS spectra of complex 2 in water determined at 1 h (a), 6h (b), and 96 h (c) after preparation (positive mode). Assignemts: m/z 496.33, $[PtL'(NH_3)]^+$ ($C_{13}H_{13}N_6O_3Pt$, 496.07); 513.17, $[PtL'(NH_3)_2]^+$ ($C_{13}H_{16}N_7O_3Pt$, calcd 513.1); 531.10, $[PtL'(NH_3)_2(OH)]^+$ ($C_{13}H_{18}N_7O_4Pt$, calcd 531.11); 550.17, $[PtL'(NH_3)_2Cl]^+$ ($C_{13}H_{17}N_7O_3ClPt$, calcd 549.07).



Scheme S1. Proposed reactions of complex **2** in water.

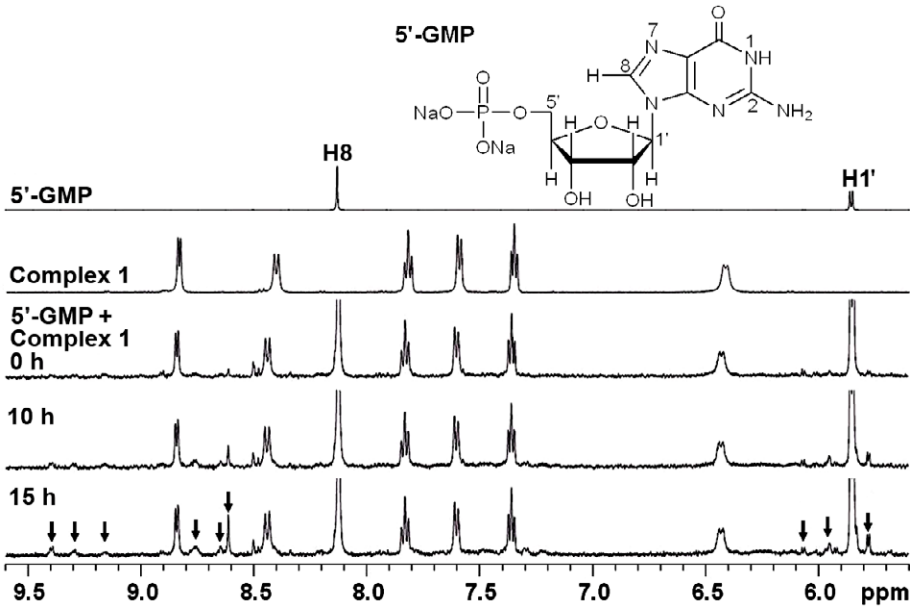


Fig. S4. ^{1}H NMR spectra of 5′-GMP (2.05 mg, 5.0 mmol), complex **1** (3.12 mg, 5.0 mmol), and their mixture (1:1) in aromatic region after incubation for 0, 10, and 15 h (D_2O, 298 K), respectively. Arrows indicate the reaction products.

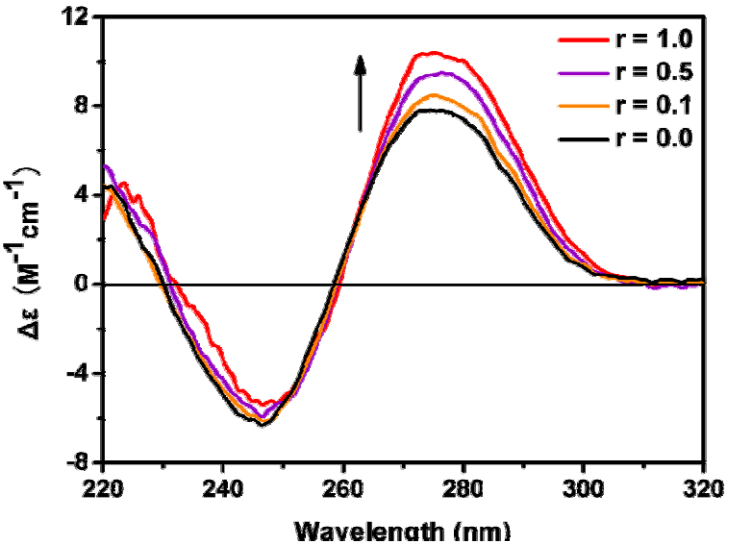


Fig. S5. Circular dichroism spectra of CT-DNA (0.1 mM) after 24 h incubation at 37 °C with complex **1** in different [complex]/[DNA] ratios (r) in PBS buffer. The baseline was corrected using PBS.

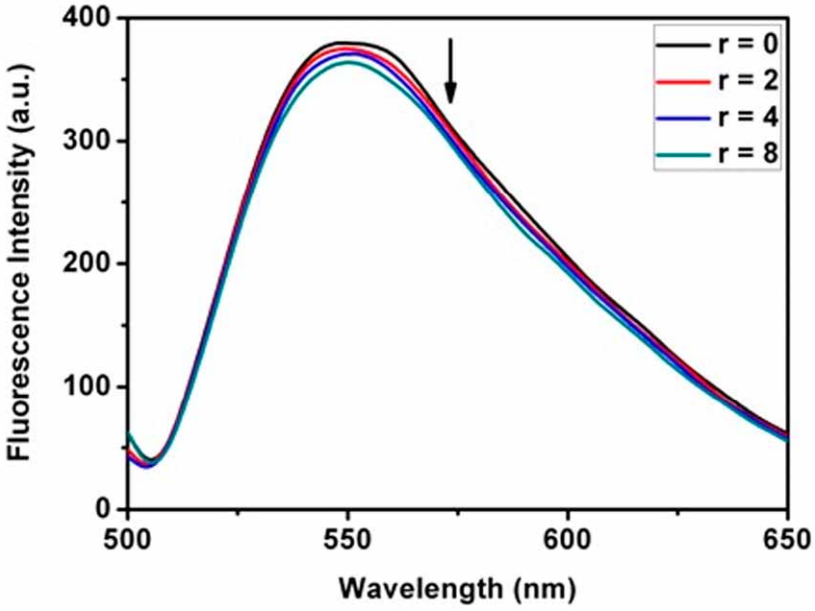


Fig. S6. Fluorescence spectra of complex **1** (50 μM) after incubation for 24 h with CT-DNA in different [DNA]/[**1**] ratios (r) in PBS buffer.

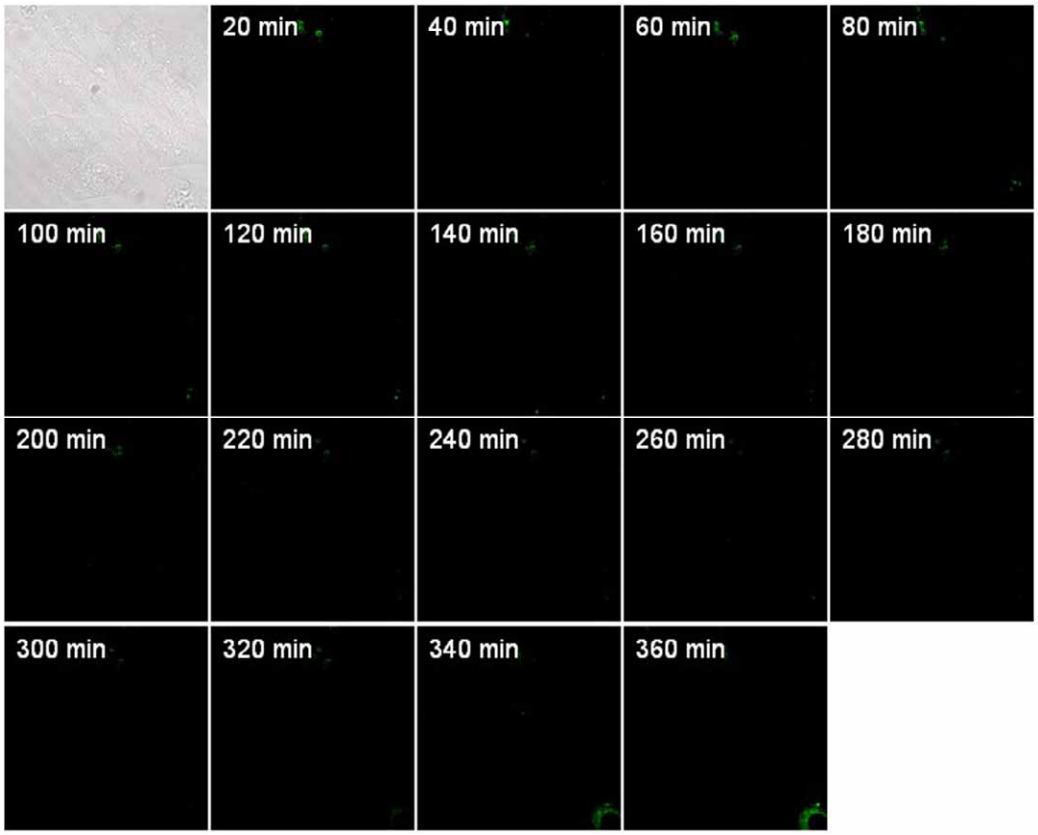


Fig. S7. Confocal microscope images of HeLa cells in the presence of complex **1** determined at different incubation time.

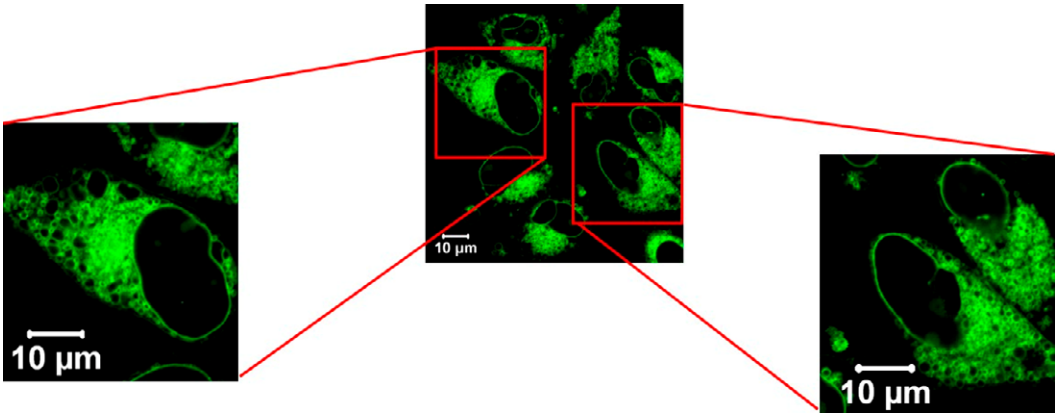


Fig. S8. Close-up confocal microscope images of HeLa cells treated with complex **1** for 17 h.

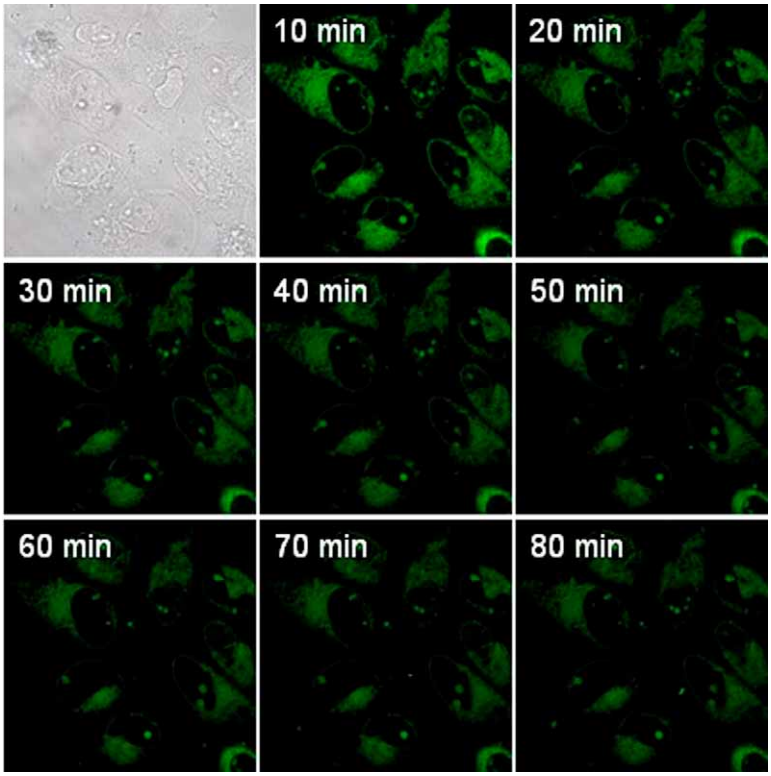


Fig. S9. Time-dependent confocal microscope images of **1**-treated HeLa cells in PBS buffer after elimination of the complex (λ_{ex} = 488 nm).

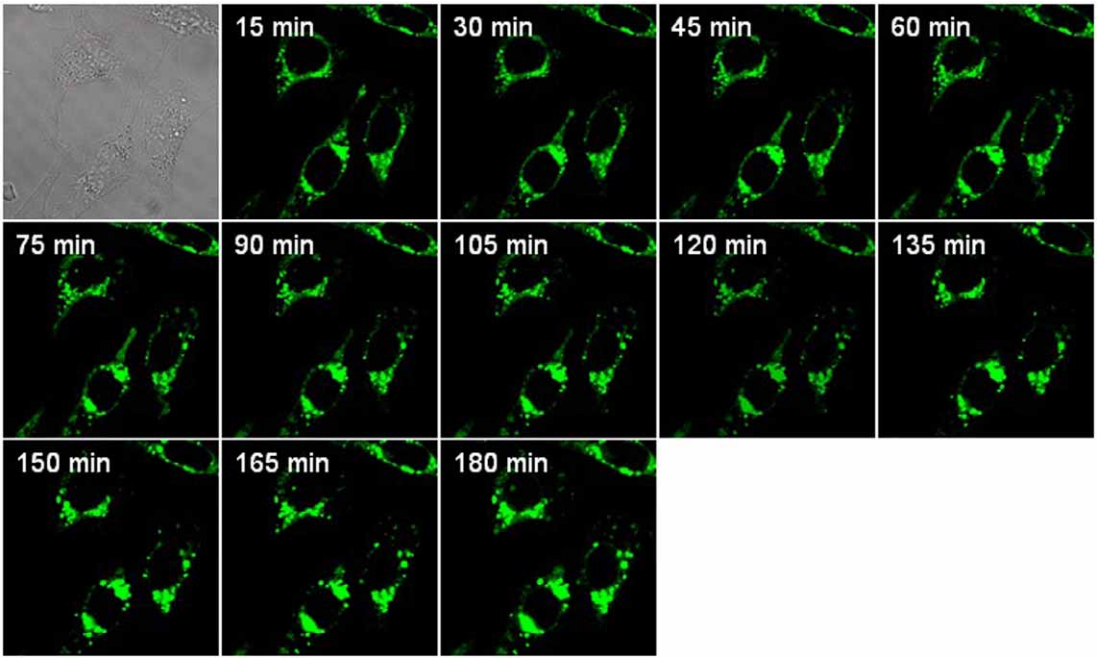


Fig. S10. Confocal microscope images (λ_{ex} = 488 nm) of HeLa cells after treatment with ligand L (10 μM) for different time.