Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Supporting Information

Mitochondria-Anchoring and AIE-Active Photosensitizer for Self-Monitored Cholangiocarcinoma Therapy

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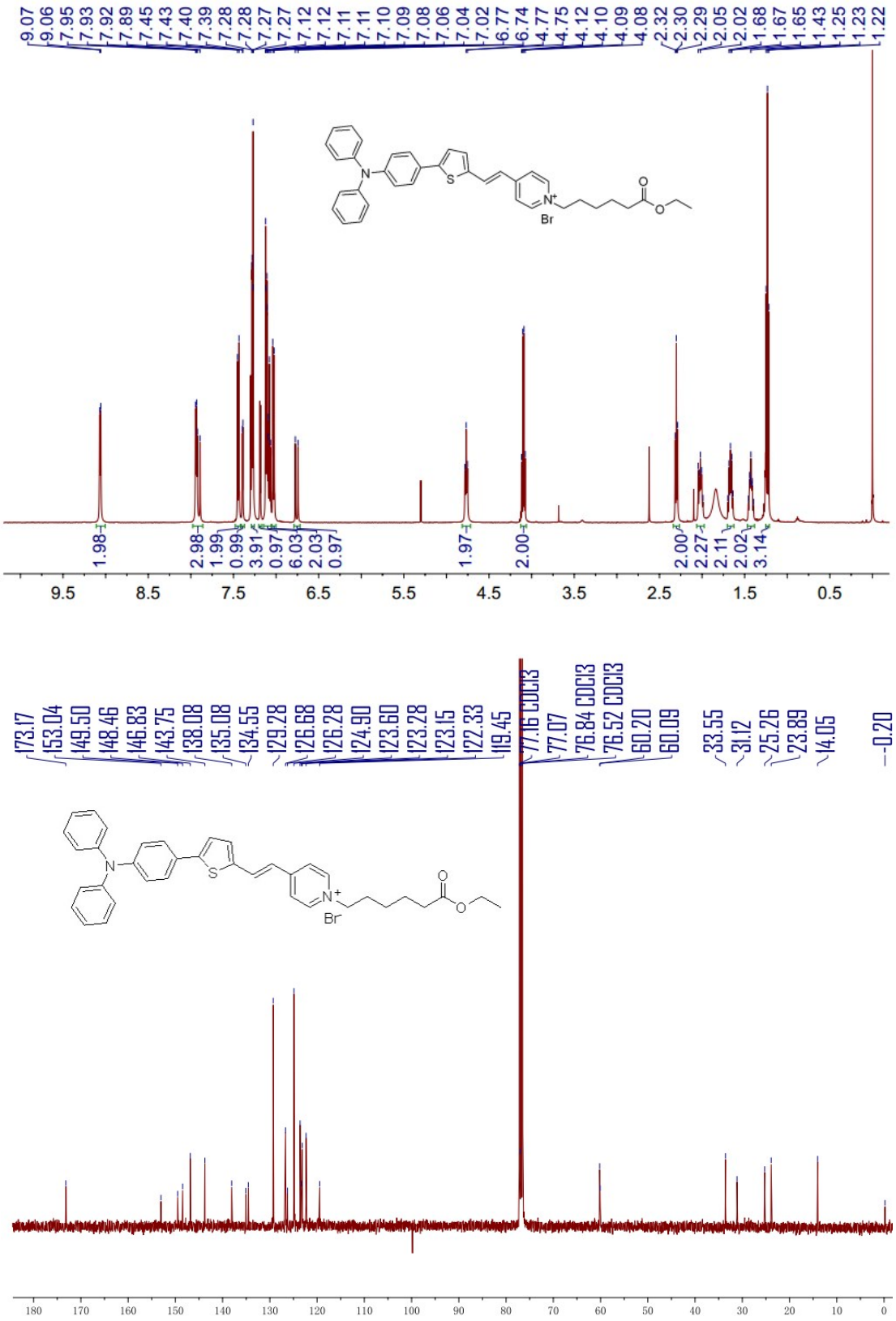

Figure S1. The ^{1}H and ^{13}C NMR spectra of compound TTVPHE in $CDCl_3$.

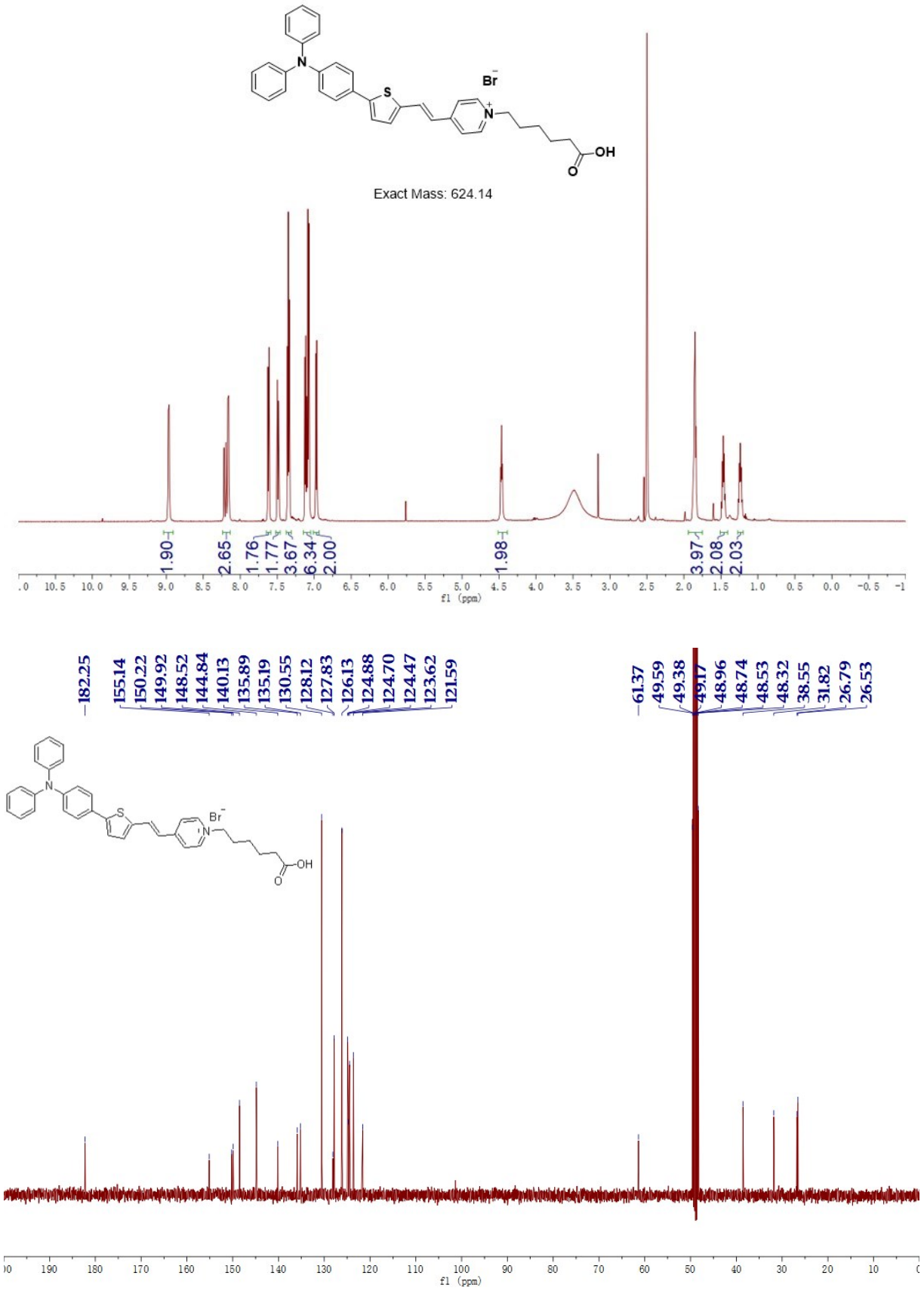

Figure S2. The ^{1}H and ^{13}C NMR spectra of compound TTVPHA in d_6-DMSO.

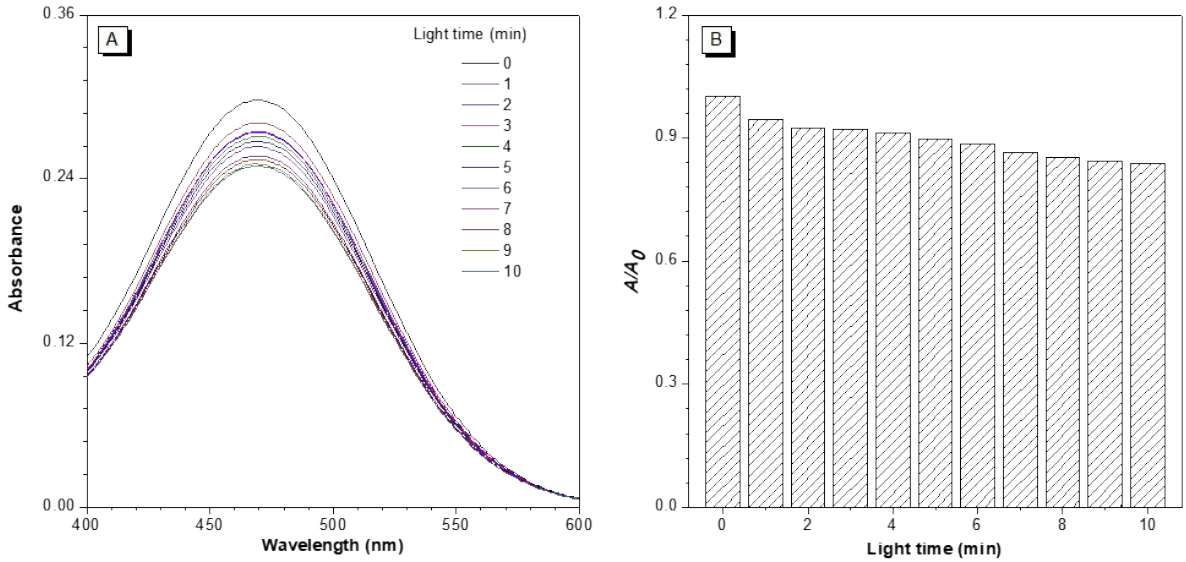

Figure S3. The photostability measurement of TTVPHE. (A) The PL spectra of TTVPHE in aqueous solution (1% DMSO) under irradiation with white light (10 mW/cm^2) for 0-10 min. (B) The plots of relative maximum absorption intensity A/A_0 versus the irradiation time. [TTVPHE] = 10 μM.

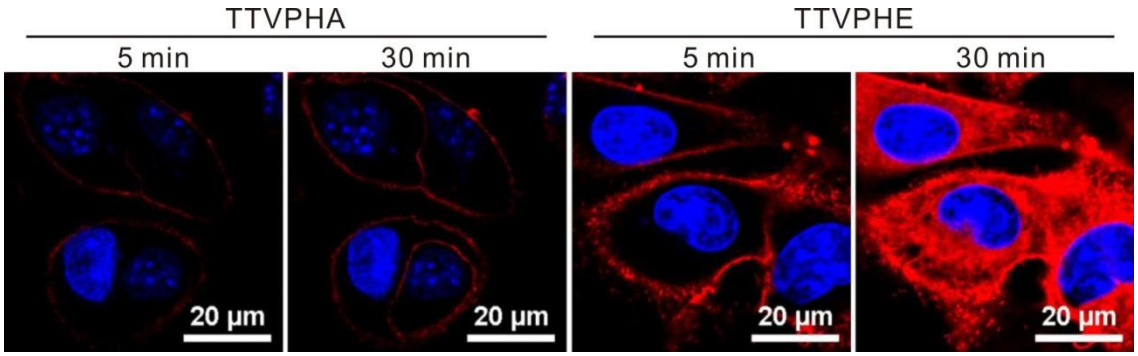

Figure S4. The dynamic processes of AIE-active TTVPHA and TTVPHE accumulation in cells monitored under a CLSM. The QBC939 cells were continuously incubated with 5 μM TTVPHA or TTVPHE and recorded under CLSM after 5 min and 30 min, respectively. The nuclei were labeled with DAPI.

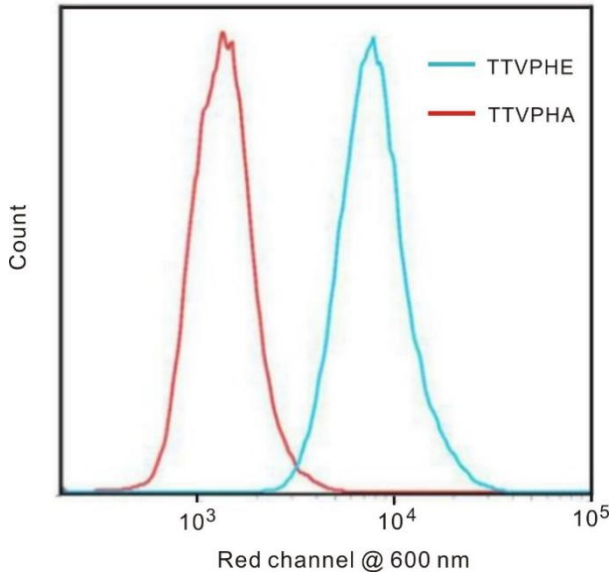

Figure S5. The quantitative analysis of intracellular TTVPHA or TTVPHE after incubation for 30 min at the same conditions by FCM. [TTVPHE] = [TTVPHA] = 5 μM.

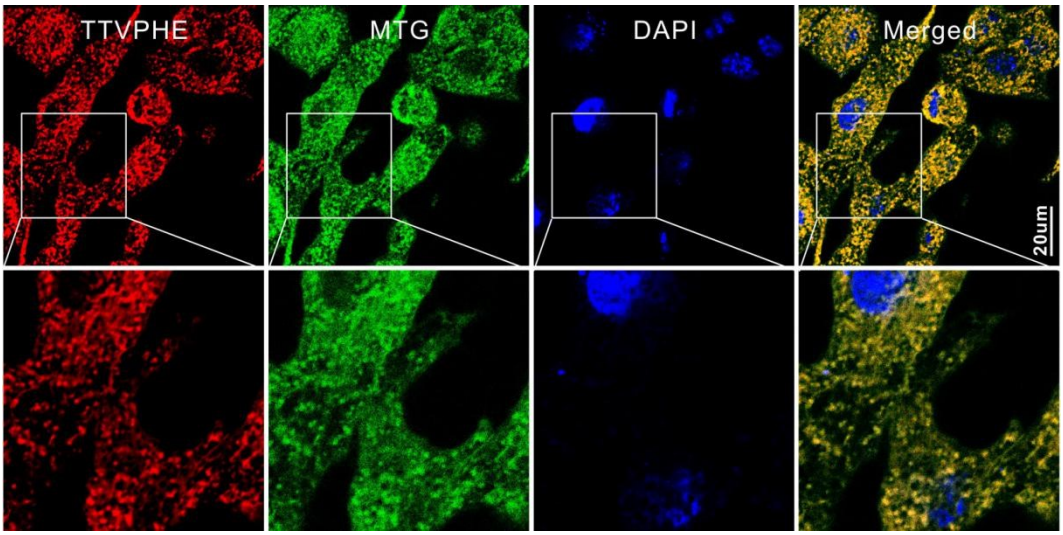

Figure S6. The fluorescence imaging of QBC939 cells co-stained with TTVPHE and MTG for 30 min. [TTVPHE] = 5 μM, [MTG] = 50 nM.

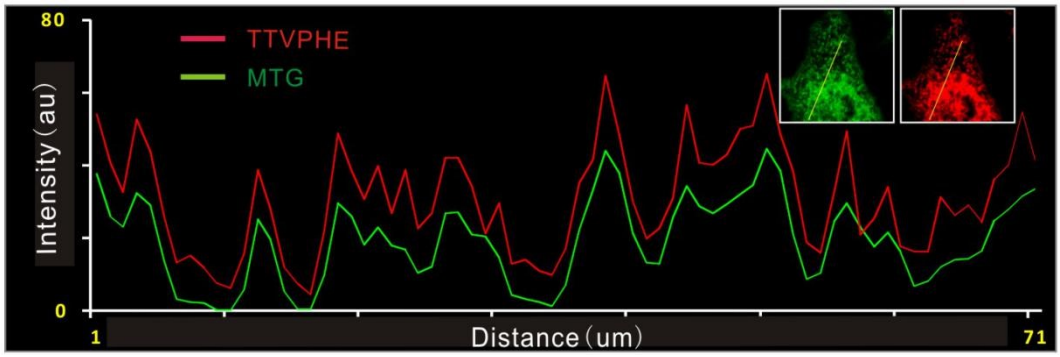

Figure S7. The line scanning profile of QBC939 cells co-stained with TTVPHE and MTG for 30 min. [TTVPHE] = 5 μM, [MTG] = 50 nM.

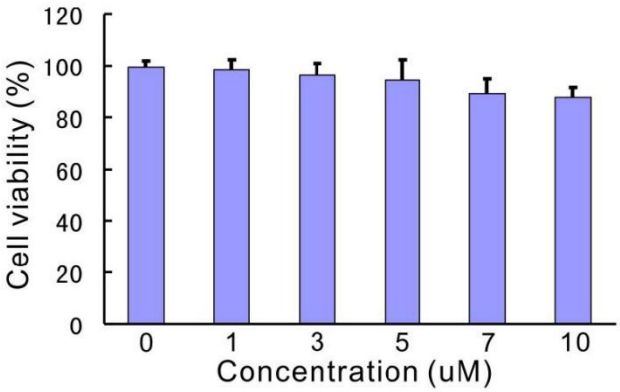

Figure S8. *In vitro* cytotoxicity of TTVPHE under dark. The QBC939 cells were incubated with a series of concentrations of TTVPHE for 30 min and then replaced with fresh culture medium for another 24 h.

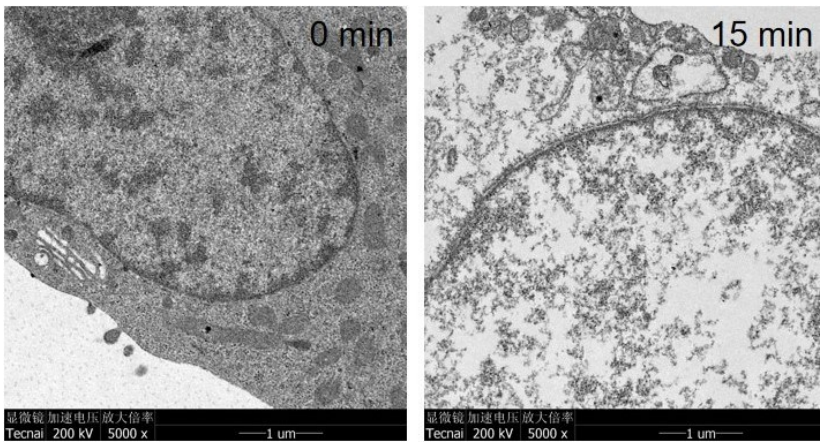

Figure S9. The TEM images of cell nucleus of QBC939 cells treated with TTVPHE (5 μM) before and after exposure to white light irradiation (15 min, 180 mW/cm^2).