Electronic Supplementary Information (ESI)

Synthesis of biocompatible polymeric nanomaterial dually loaded with paclitaxel and nitric oxide for anti-MDR cancer therapy

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PEI-PLLA-IR800 diffusion and metabolism in 48 h.

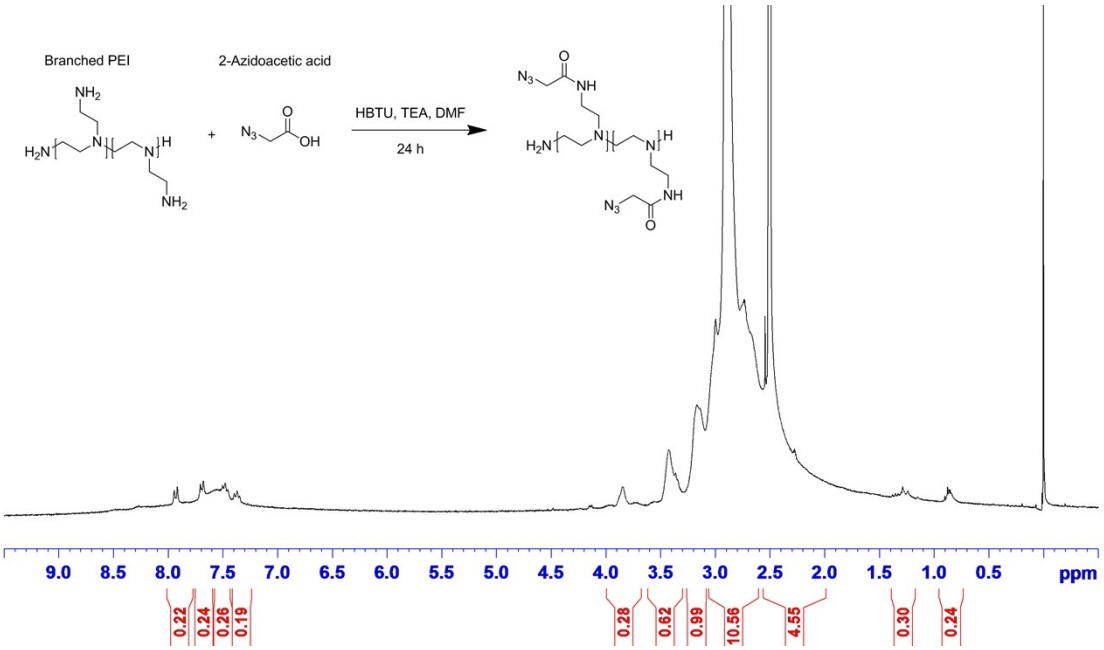

Figure S1. ^{1}H NMR spectrum of PEI-azide (300 MHz, DMSO-D_6).

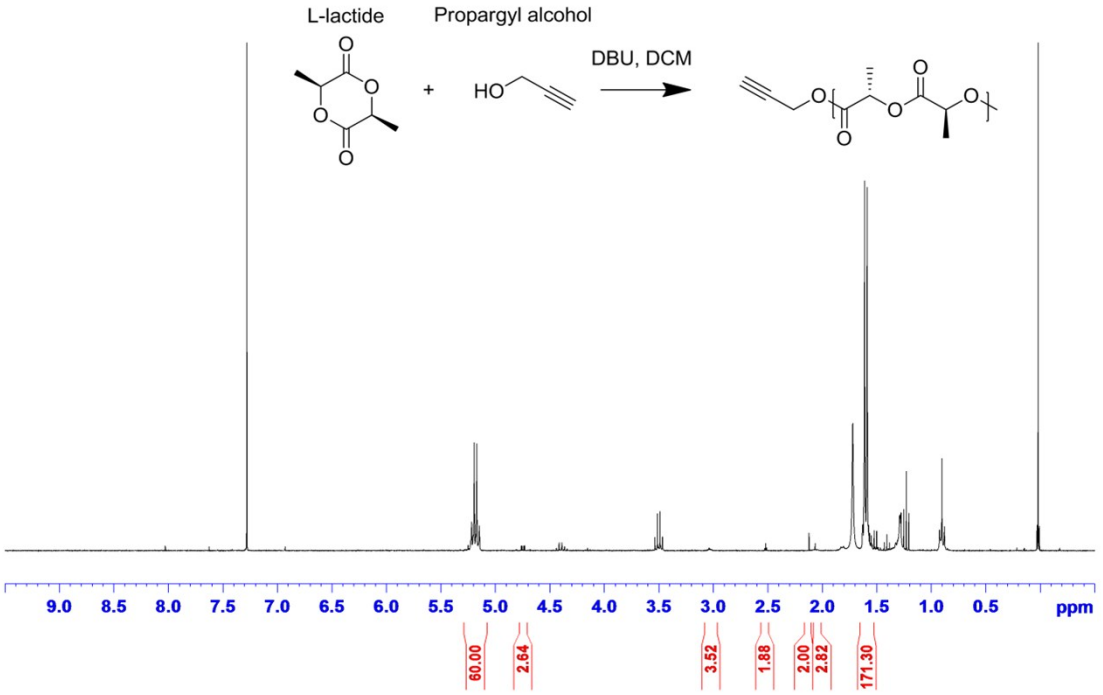

Figure S2. ^{1}H NMR spectrum of PLLA-alkyne (300 MHz, $CDCl_3$).

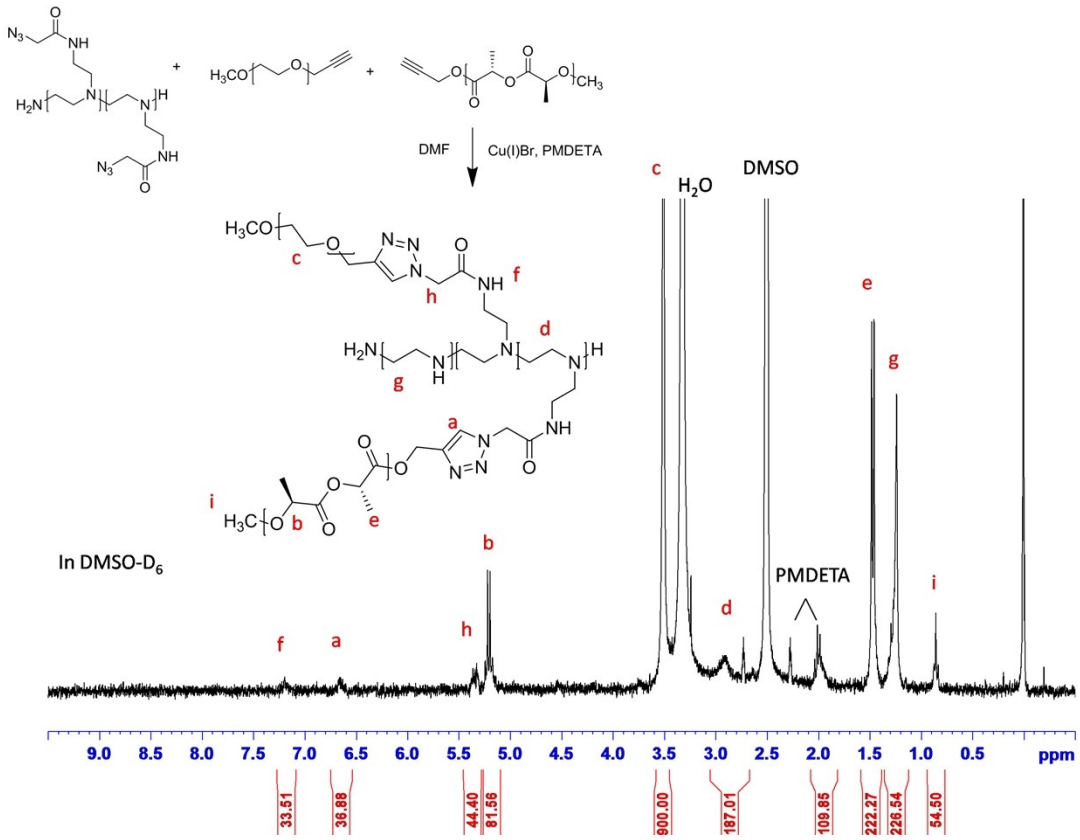

Figure S3.[1]H NMR spectrum of mPEG-PEI-PLLA (300 MHz, DMSO-D_6).

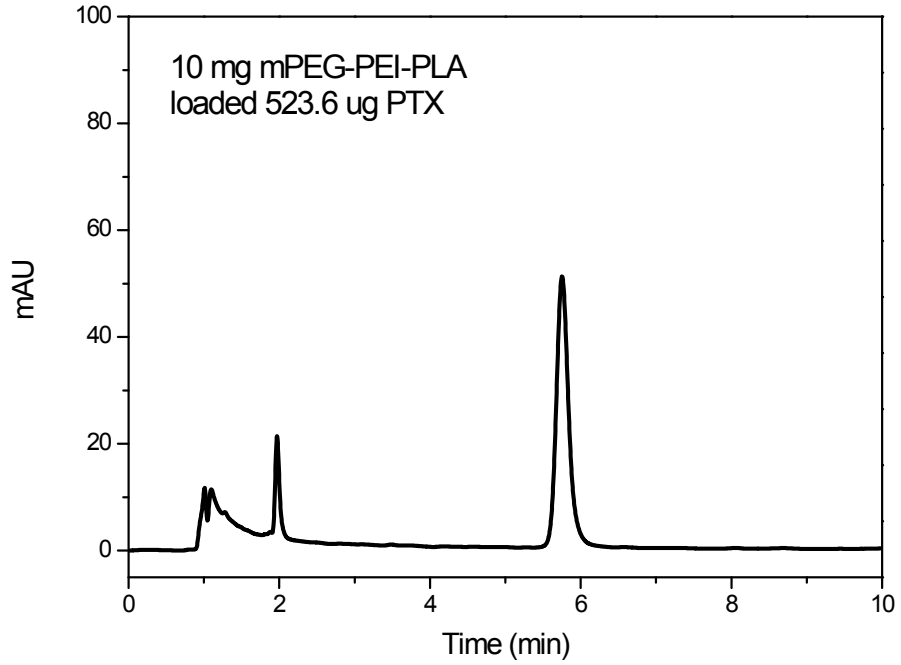

Figure S4.HPLC chromatograph of mPEG-PEI-PLLA-PTX PBS solution, with PTX appearing at 5.7 min.

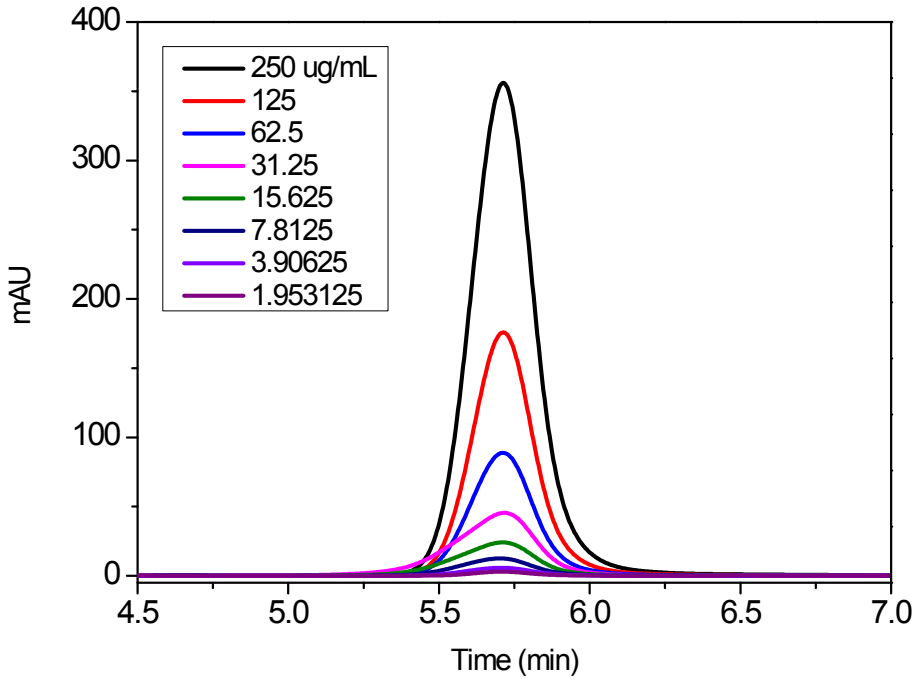

Figure S5.HPLC traces of different concentrations of PTX (1.95 to 250 μg/mL) in H_2O/ACN= 1/1 solution.

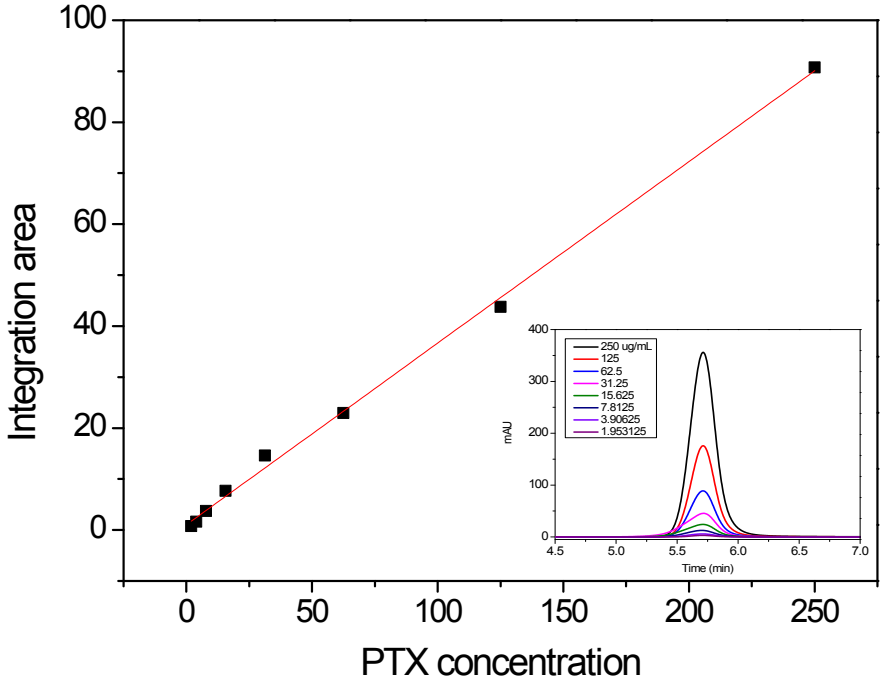

Figure S6.PTX calibration curve.The 228nm peak area at 5.7 minwas utilized to calculate integration area.

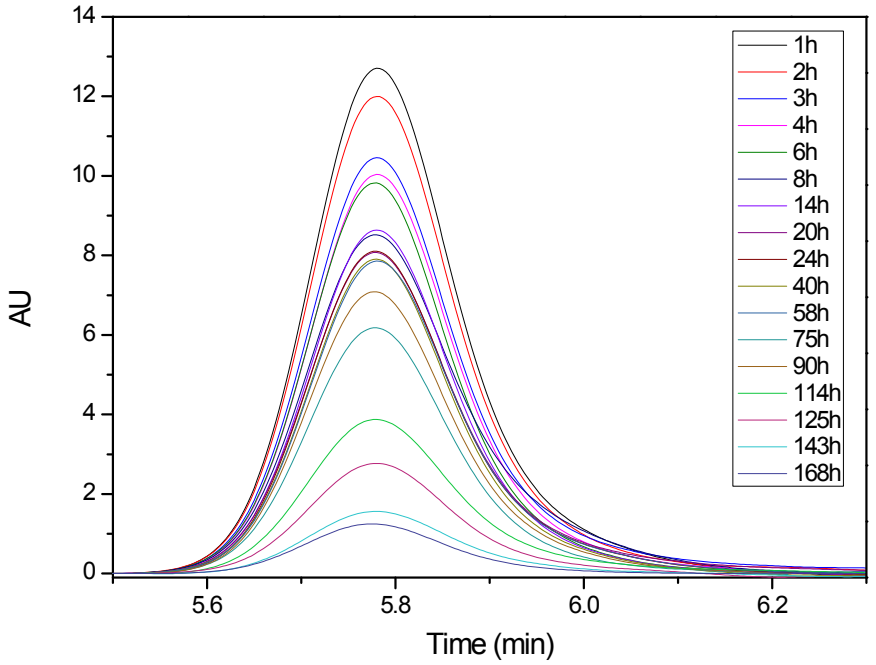

Figure S7. The release of PTX from mPEG-PEI-PLLA-PTX in pH 7.4 PBS solution.

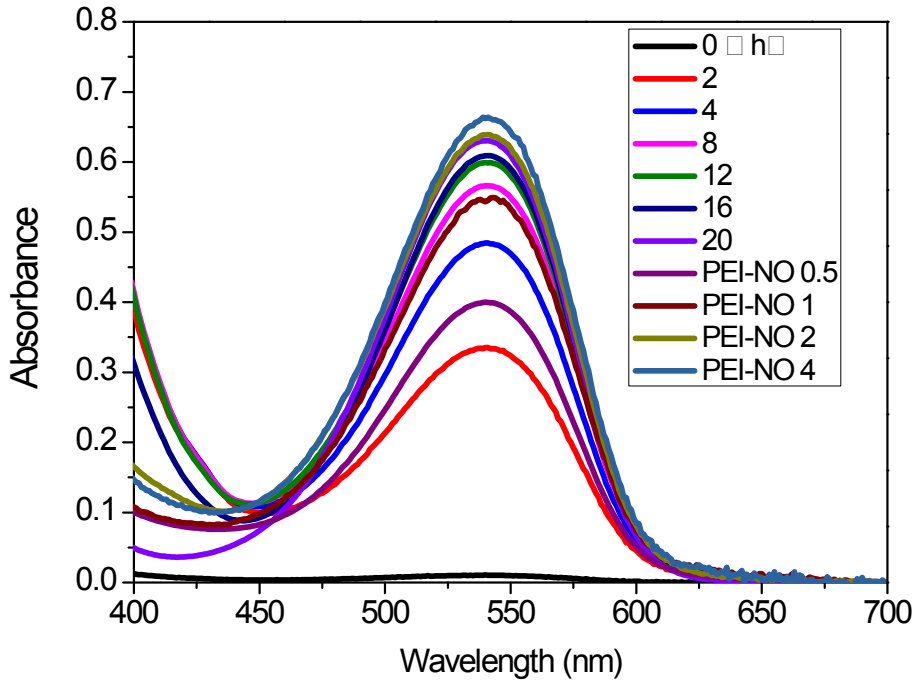

Figure S8.NO loading and stability on mPEG-PEI-PLLA polymer via Griess method.

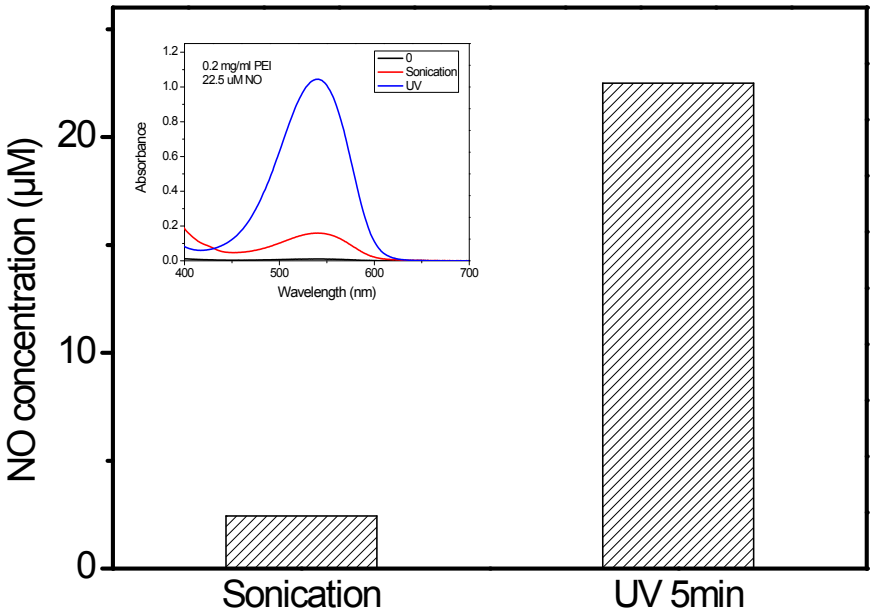

Figure S9.mPEG-PEI-PLLA-NO PBS solutions(200ug/mL) were treated with UV or sonication for 5min.

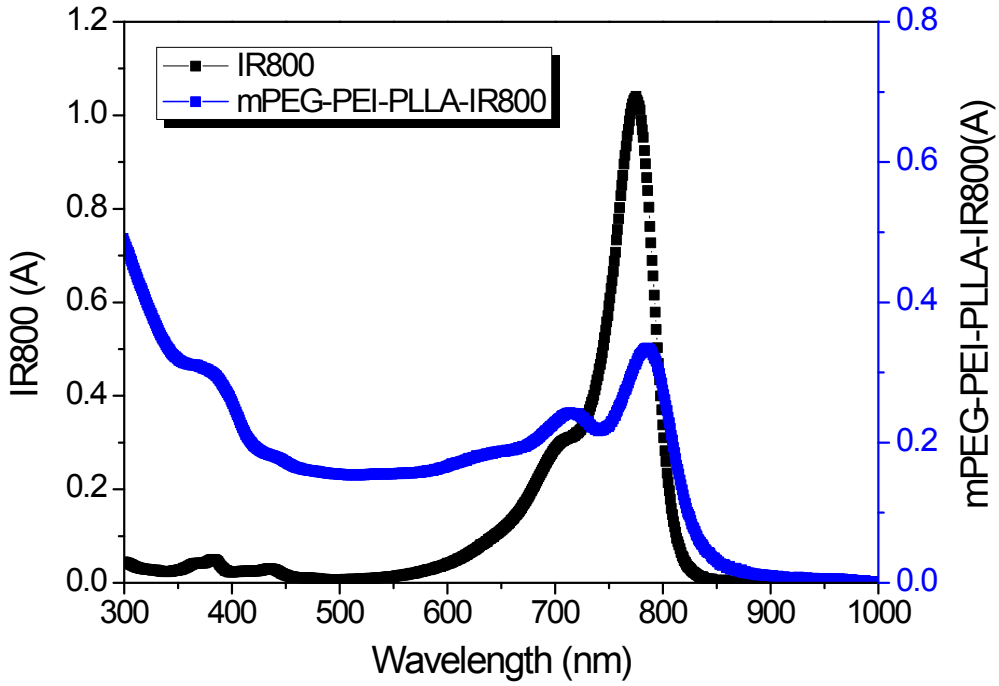

Figure S10.UV-Vis spectrum of IR800 NIR dye before and after conjugation to the particles.

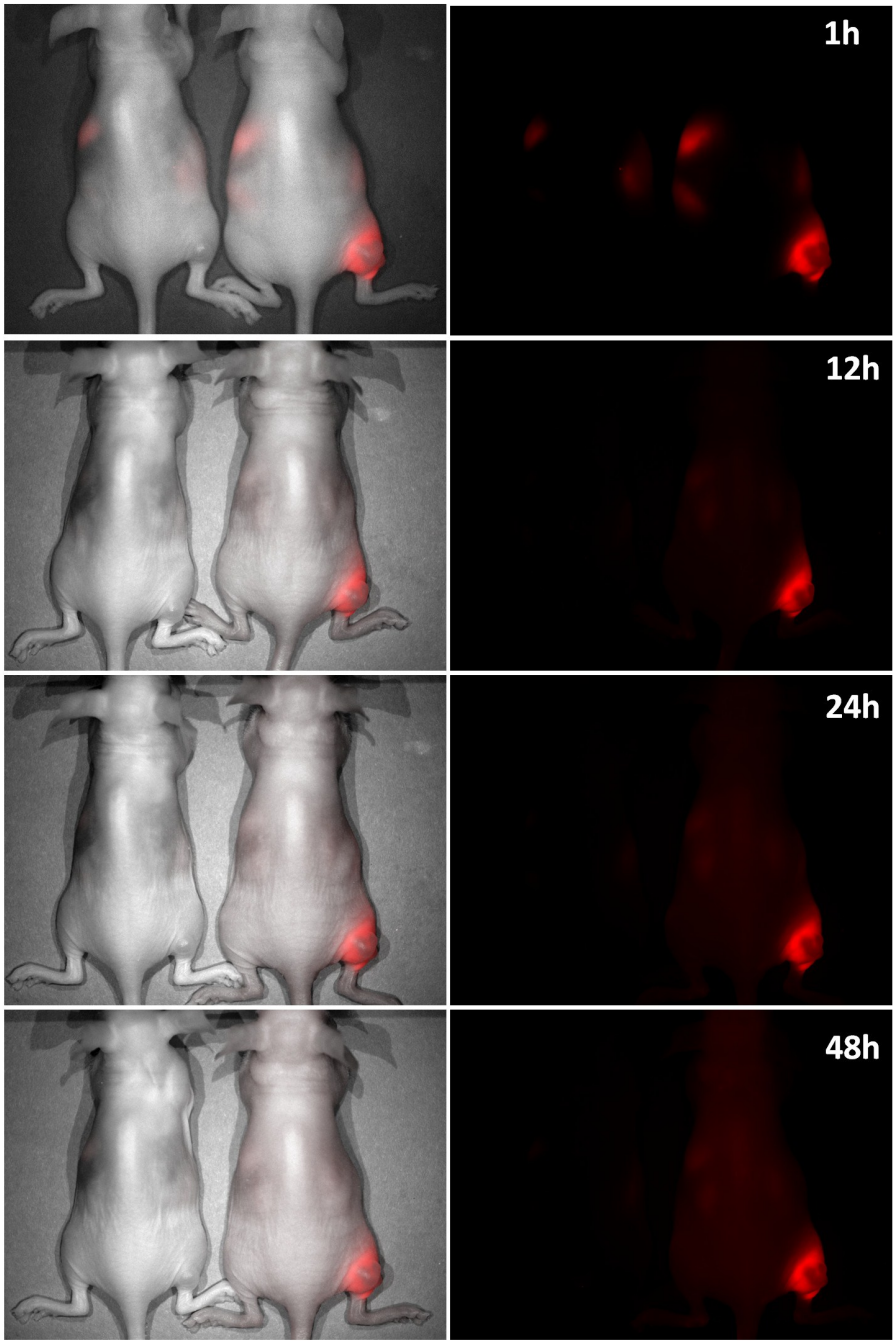

Figure S11. Two groups of mice were imaged under small animal imaging system to analyze the mPEG-PEI-PLLA-IR800 diffusion and metabolism in 48 h. The left mice was treated by mPEG-PEI-PLLA and the right mice was treated by mPEG-PEI-PLLA-IR800. Right: fluorescent channel imaging; Left: merge with bright-field imaging.