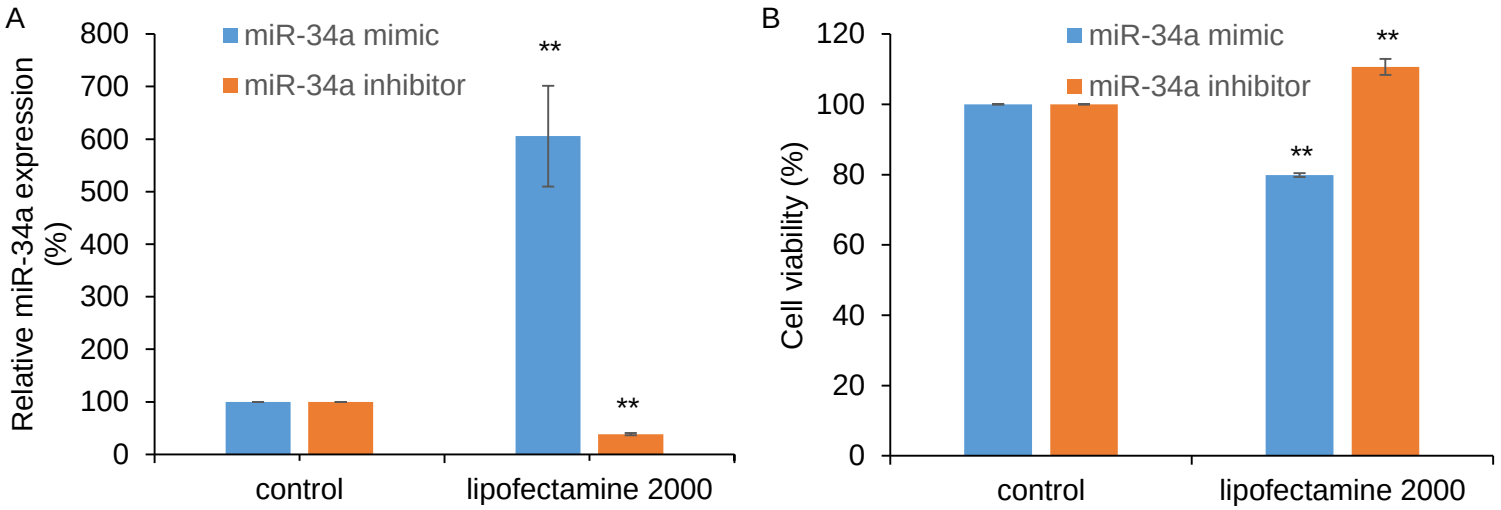
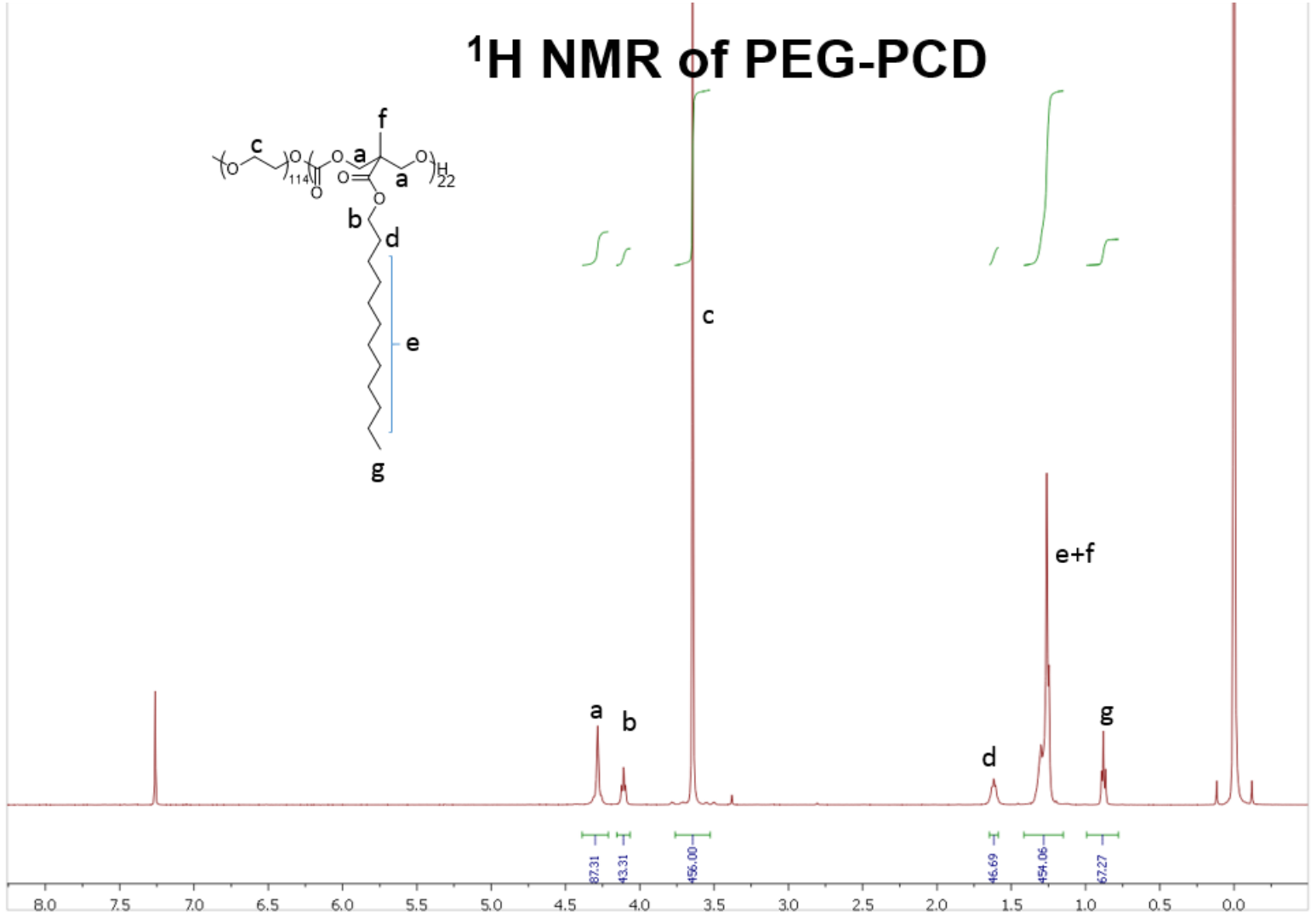



**Supplementary Fig. S1.** Effect of miR-34a on prostate cancer cell viability. A. miR-34a expression after miR-34a mimic and inhibitor treatment in PC3-TXR cells (Student t test; **p < 0.01 vs. control, respectively, n = 3). B. Cell viability of PC3-TXR cells after miR-34a mimic and inhibitor treatment (Student t test; **p < 0.01 vs. control, respectively, n = 3).

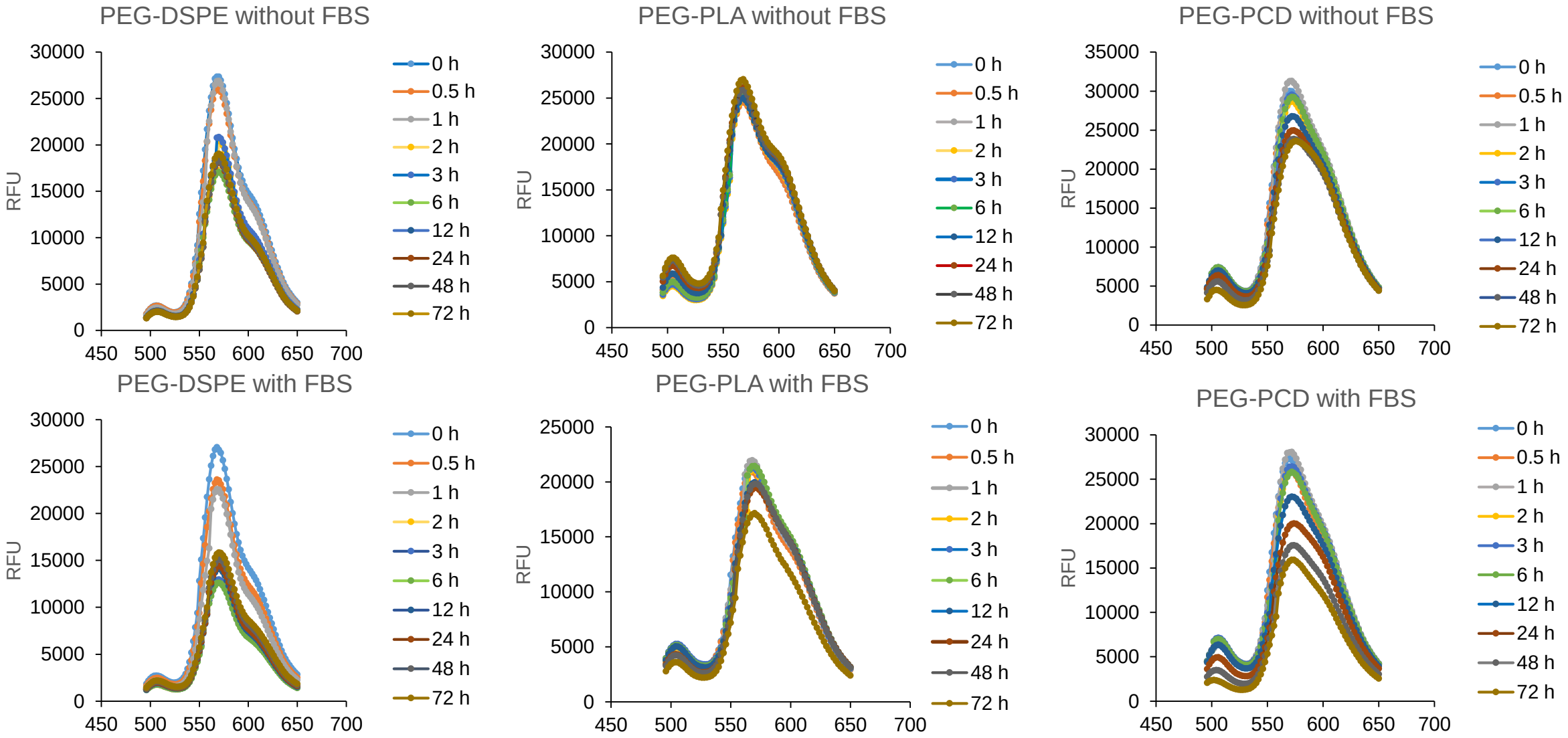
A



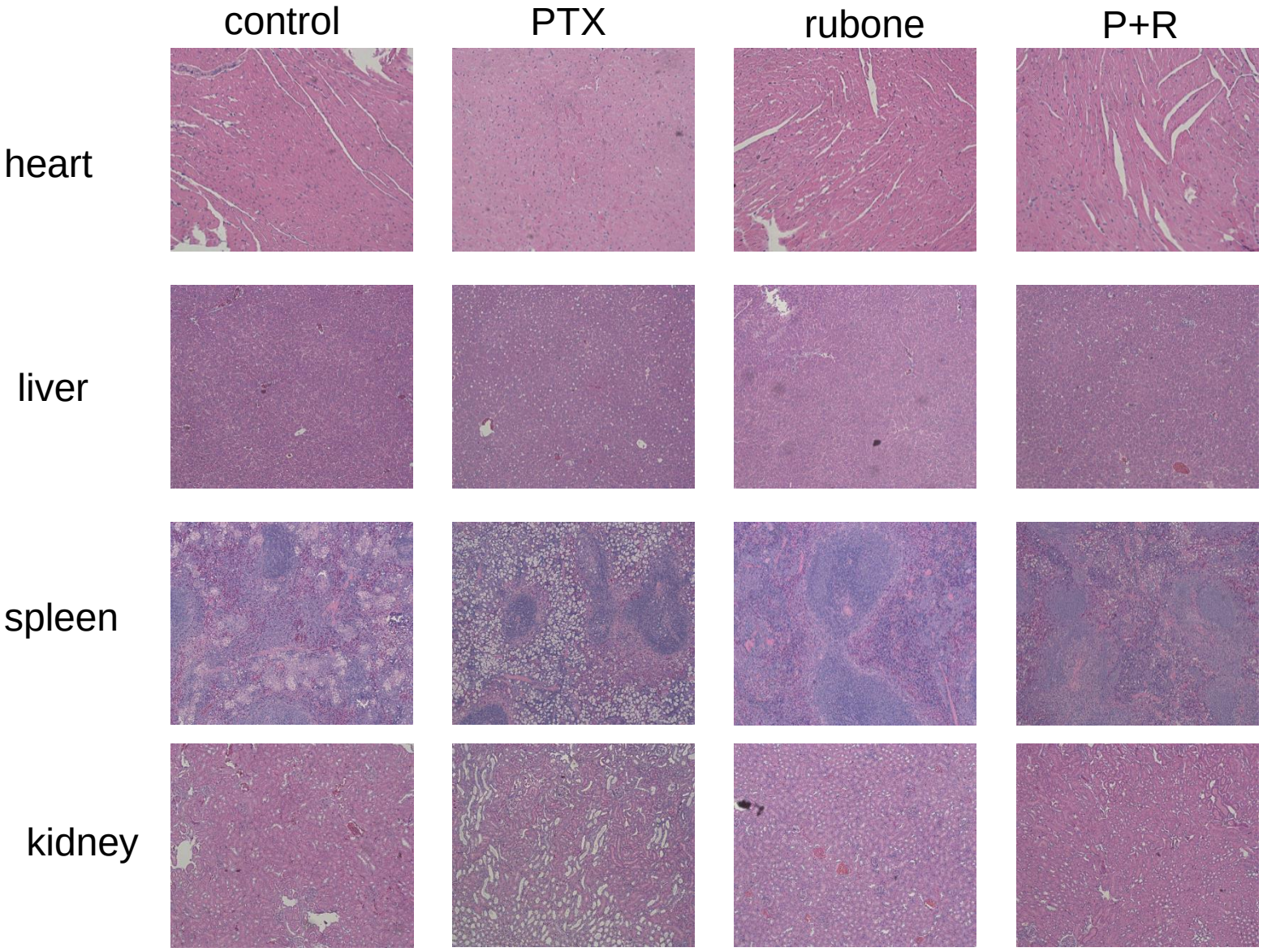

B

| Copolymer | Size (nm) | PDI |
|---|---|---|
| PEG-b-PCD (Blank) | 136.50±1.40 | 0.208±0.010 |
| PEG-b-PCD (PTX) | 132.00±0.72 | 0.211±0.021 |
| PEG-b-PCD (Rubone) | 150.30±1.43 | 0.200±0.015 |

**Supplementary Fig. S2.** Synthesis of PEG-PCD and size measurement before and after drug loading. a. NMR spectra of PEG-PCD. b. size measurement of PEG-PCD before and after drug loading.




**Supplementary Fig. S3.** Micelle stability of PEG-PCD, PEG-PLA and DSPE-PEG. Micelle stability of PEG-PCD, PEG-PLA, and DSPE-PEG was determined by FRET assay (upper line, without FBS; bottom line, with 20% FBS).




**Supplementary Fig. S4.** Organ toxicity of PTX and rubone formulation. Tumor metastasis and organ toxicity of PTX and rubone formulation were evaluated by H&E staining.