Supporting Information for

Novel Multi-responsive Pseudo-poly(amino acid) For Effective Intracellular Drug Delivery

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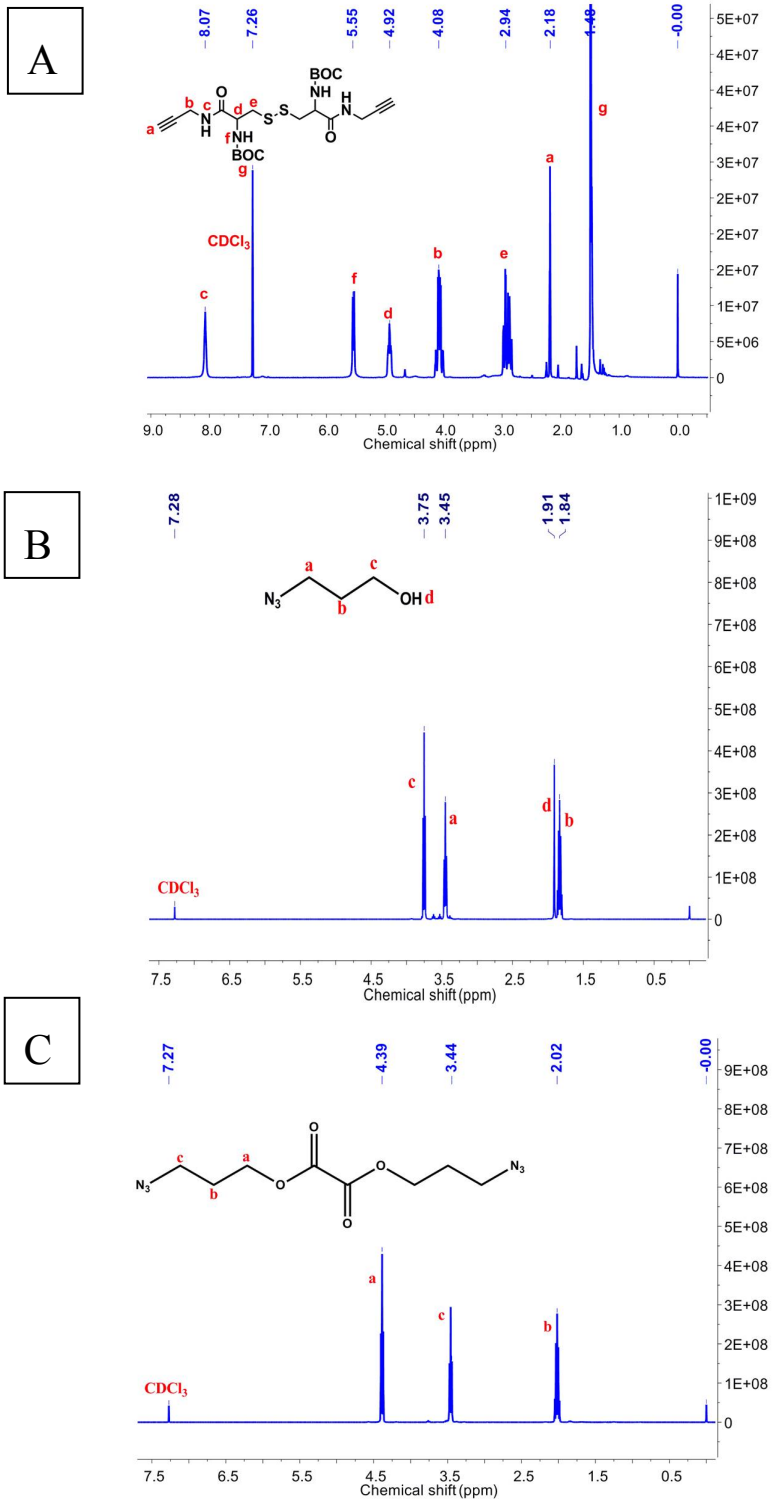
Figure S11. Representative CLSM images of A549 cells incubated with DOX and PRDSP@DOX.

Figure S12. Zeta potential (mv) of blank PRDSP NPs and PRDSP@DOX NPs.



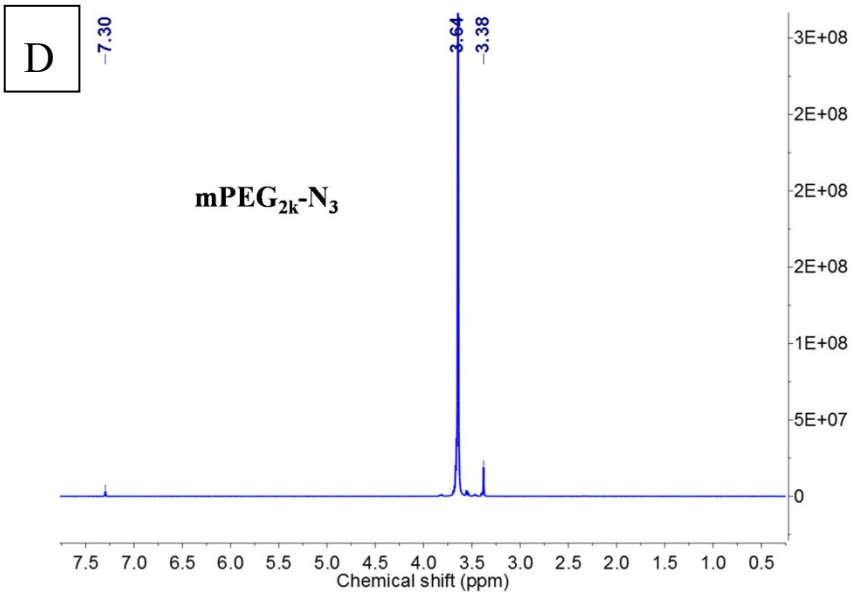


Figure S1. ^{1}H NMR of monomers in $CDCl_3$.

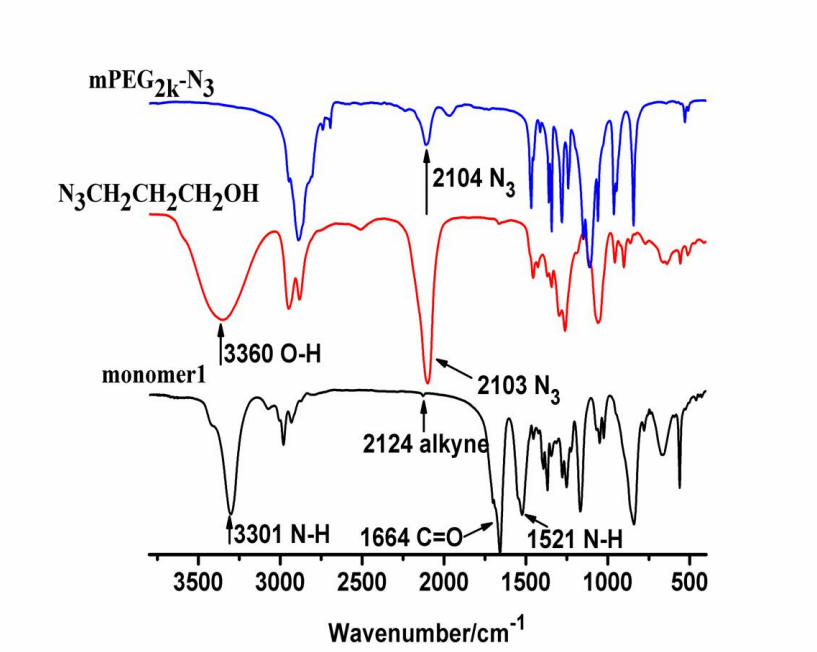


Figure S2. FT-IRspectra of monomers.

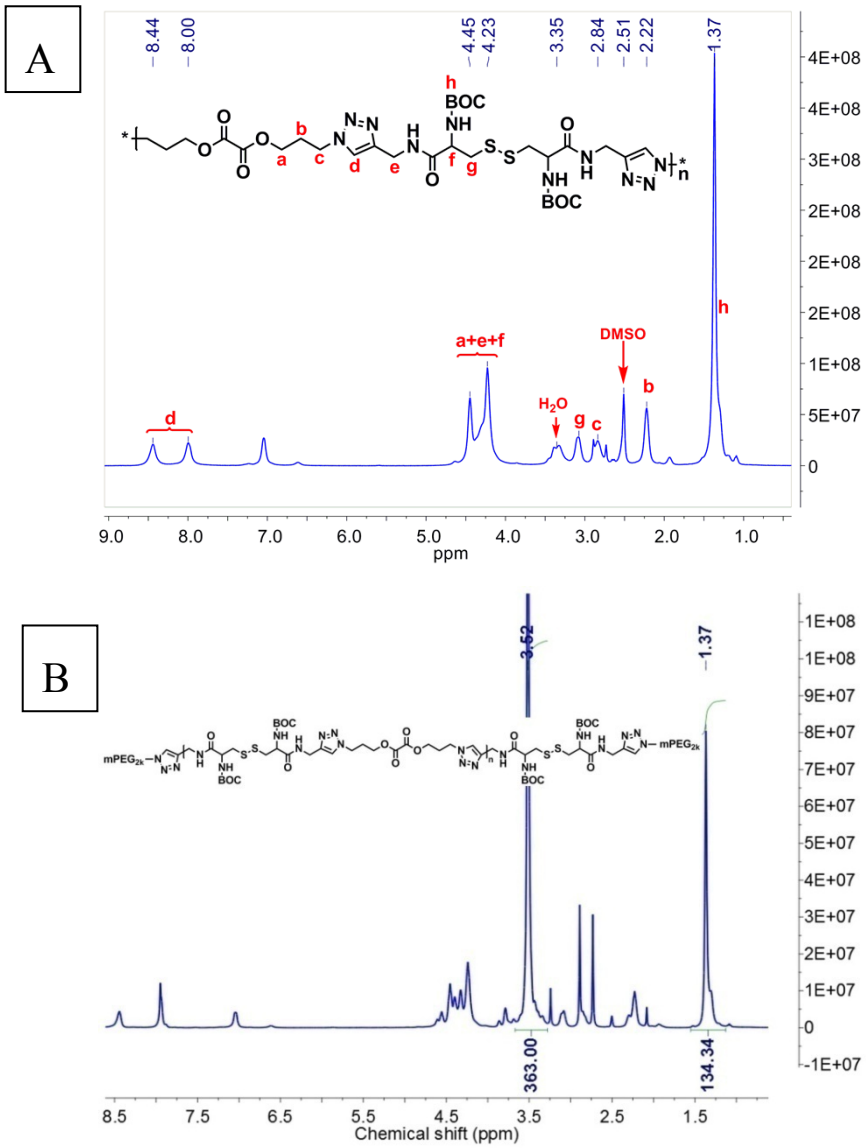


Figure S3. ^{1}H NMR of hydrophobic block and PRDSP in DMSO-D_6.

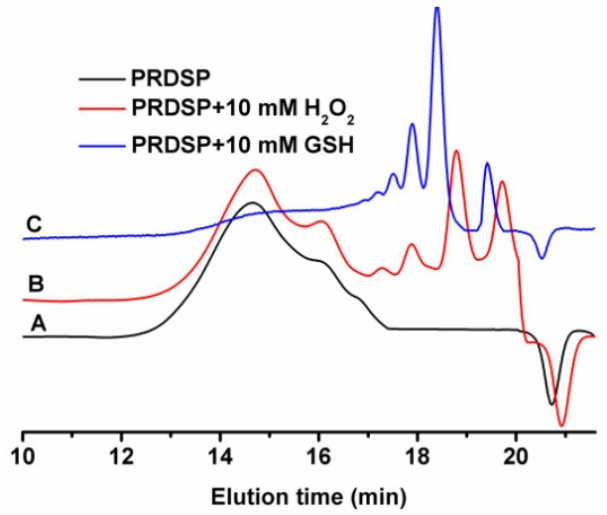


Figure S4. GPC spectra of PRDSP under different conditions. GPC traces of (A) PRDSP triblock copolymer; (B) the PRDSP copolymer in THF (10 mg/mL) after 12 h

reaction with H_2O_2, the ratio of H_2O_2 and peroxalate ester bonds being 8:1; (C) the PRDSP copolymer in THF(10 mg/mL) after 12 h reaction with GSH, the molar ratio of GSH and disulfide groups being 8:1.

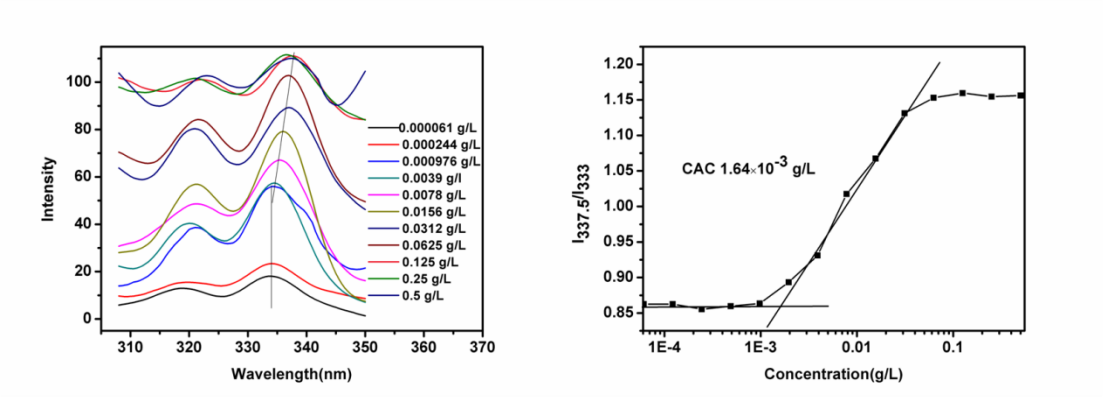


Figure S5. Critical aggregation concentration (CAC) of PRDSP.

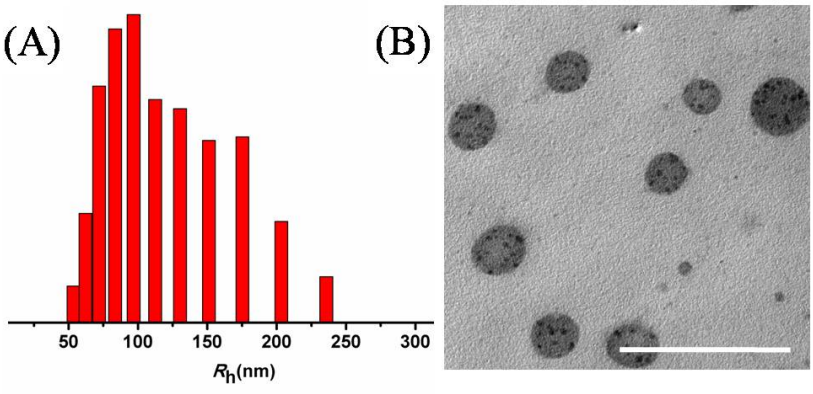


Figure S6. (A)average diameters of PRDSP@DOX NPs monitored by DLS, and (B)TEM micrograph of PRDSP@DOX NPs (scale bars: 500 nm).

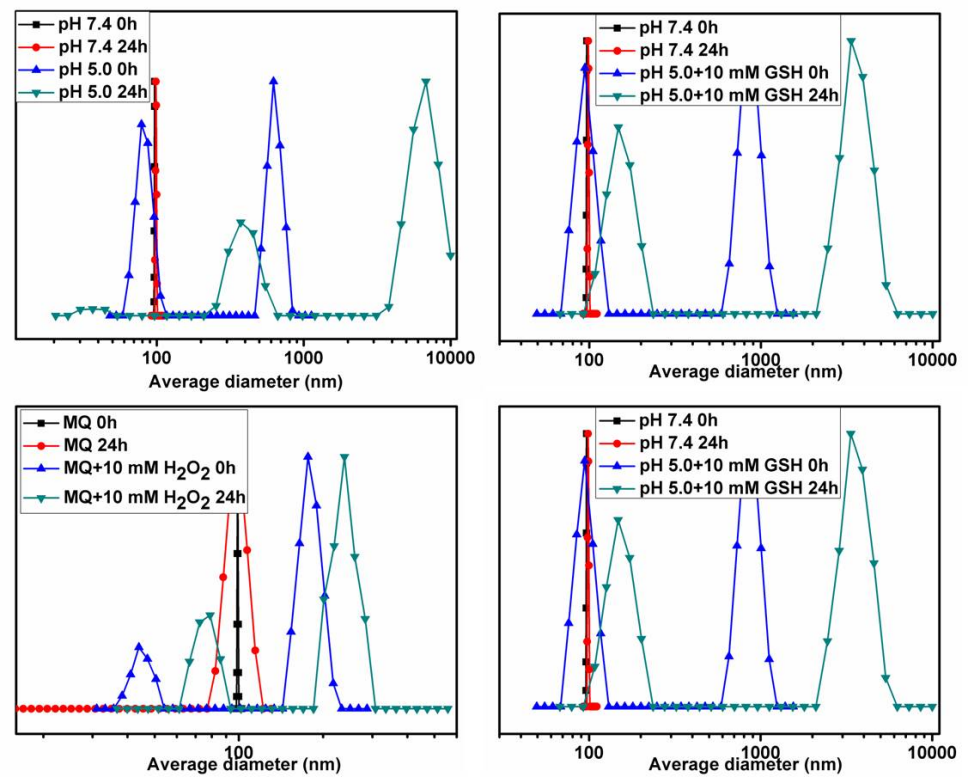


Figure S7. The size distribution of PRDSP NPs under different conditions.

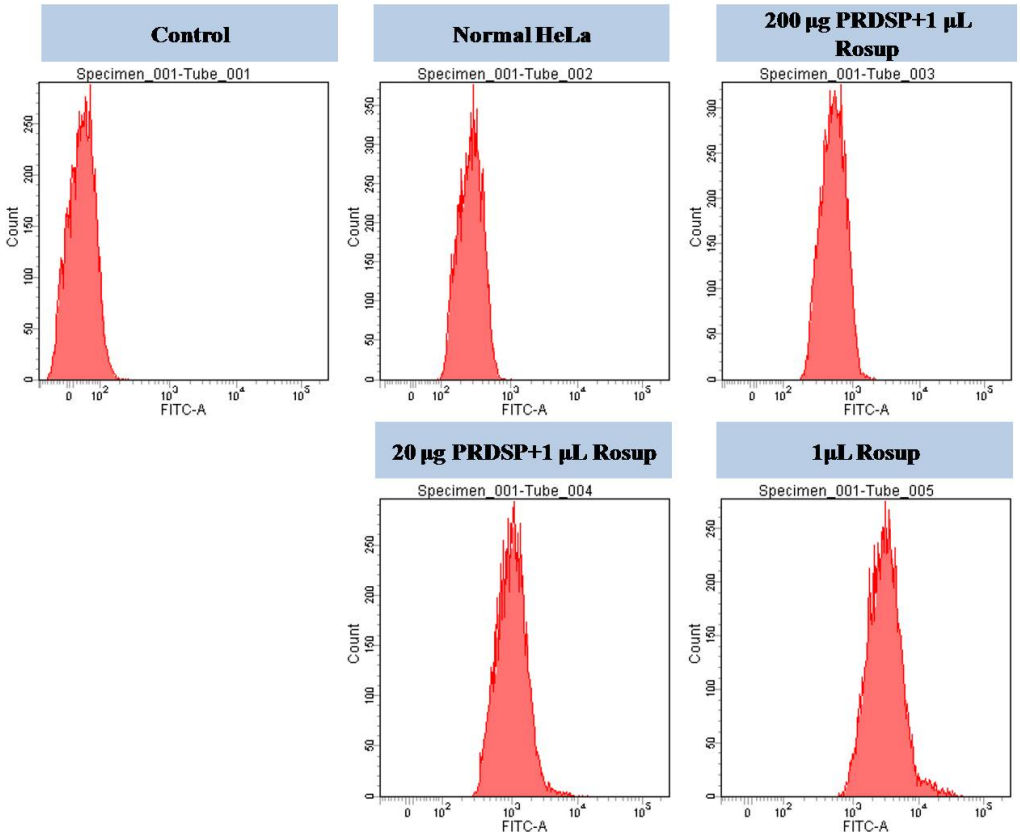


Figure S8. The flow cytometry analyses of intracellular ROS concentrations.

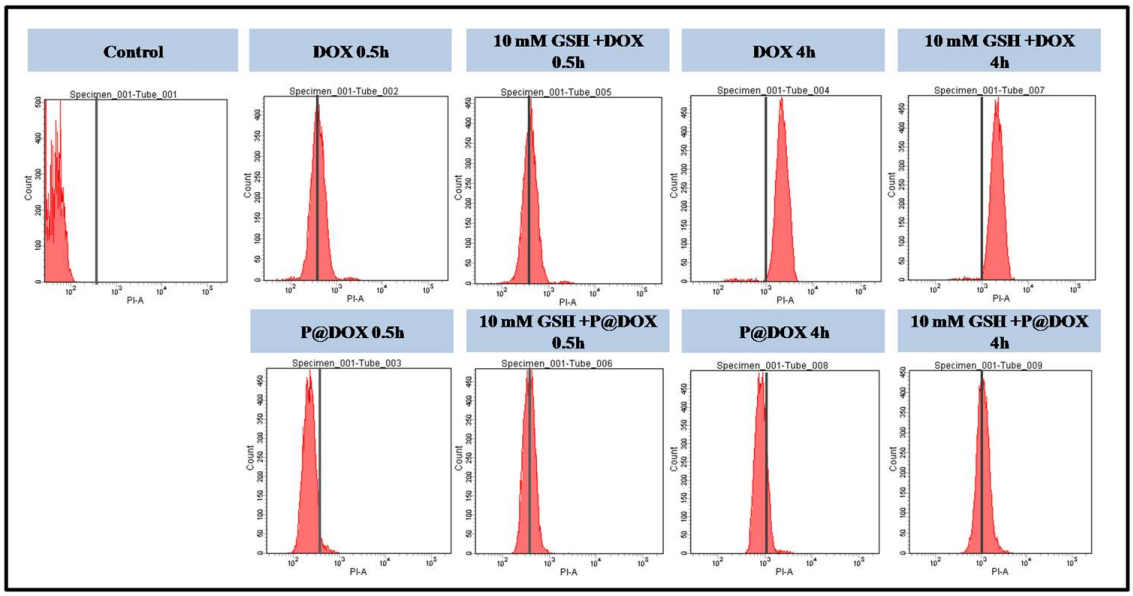


Figure S9. The flow cytometry analyses of cellular uptake of free DOX and PRDSP@DOX towards HeLa cells.

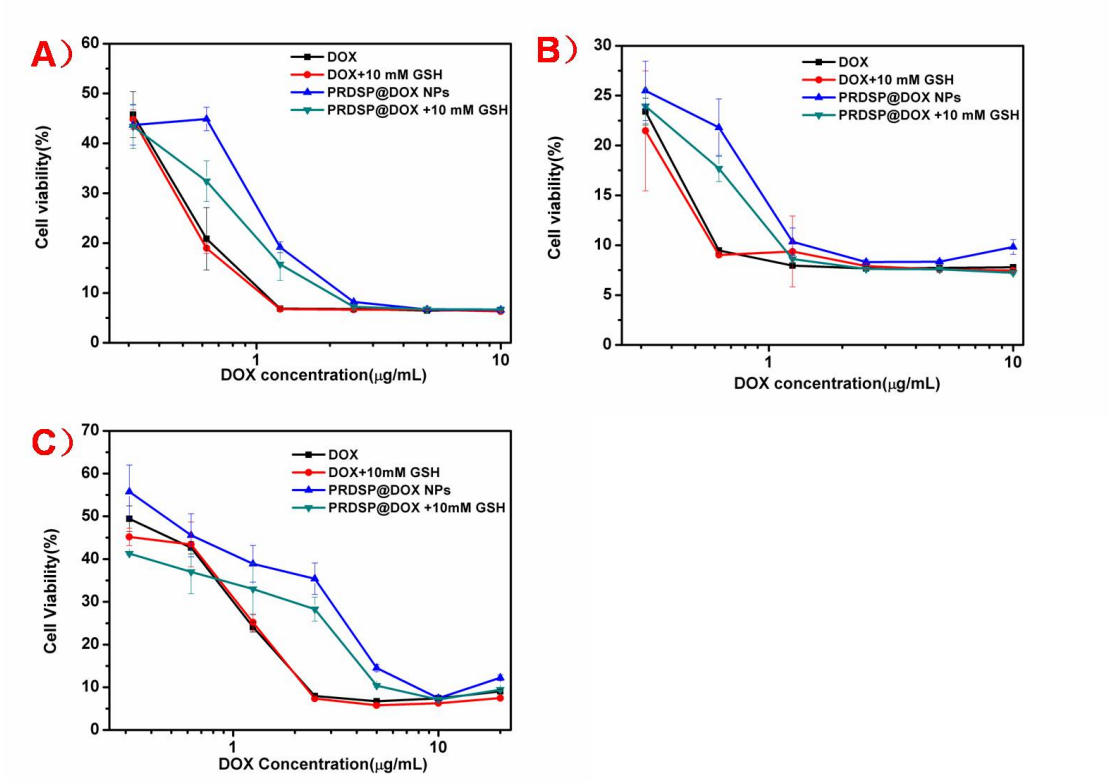


Figure S10. In vitro cytotoxicity of PRDSP@DOX NPs and free DOX ·HCl at various DOX concentrations towards 10 mM GSH-pretreated or non-pretreated cells with different incubation time. (A) HeLa, 72 h; (B) HeLa, 96 h; (C) A549, 72 h.

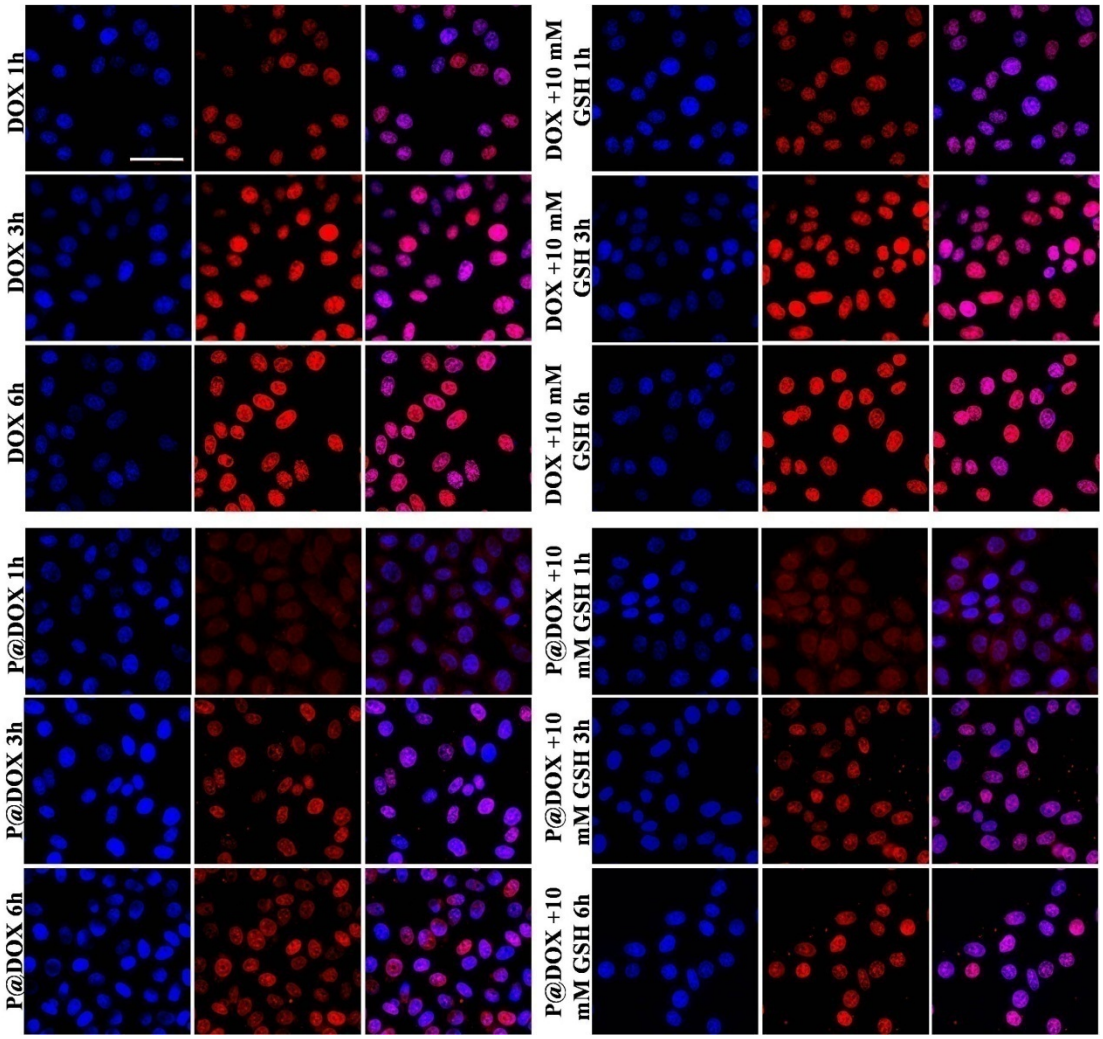


Figure S11. Representative CLSM images of A549 cells incubated with DOX and PRDSP@DOX (blue:DAPI, red:DOX. Bar:50 μm).

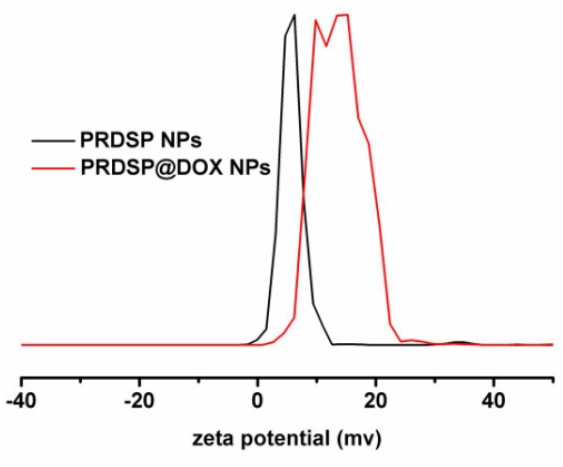


Figure S12. Zeta potential (mv) of blank PRDSP NPs and PRDSP@DOX NPs.