Electronic Supplementary Material (ESI) for Polymer Chemistry.

Electronic Supporting Information

Responsive polyprodrug for anticancer nanocarriers

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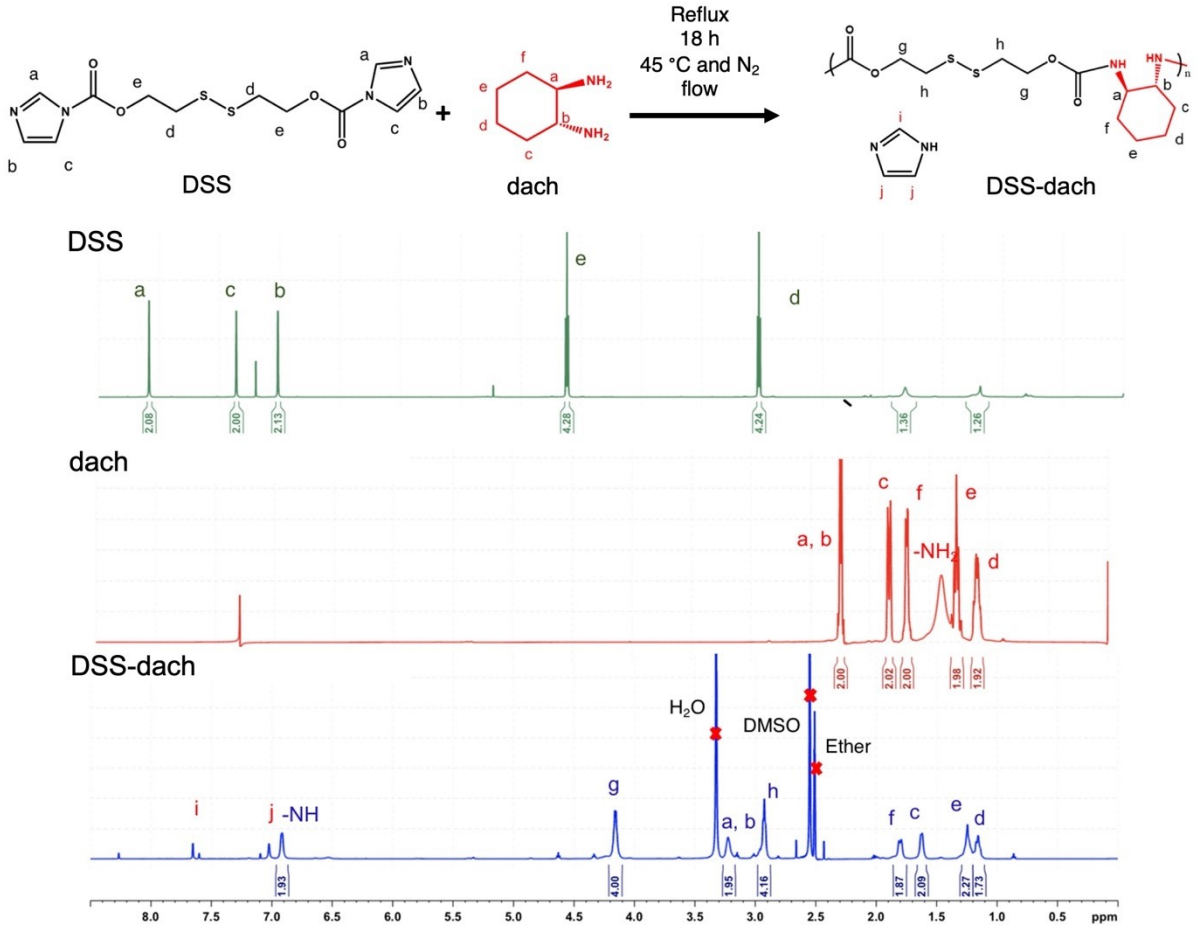

Fig. S1. ^{1}H NMR spectrum of DSS-dach in DMSO-d_6.

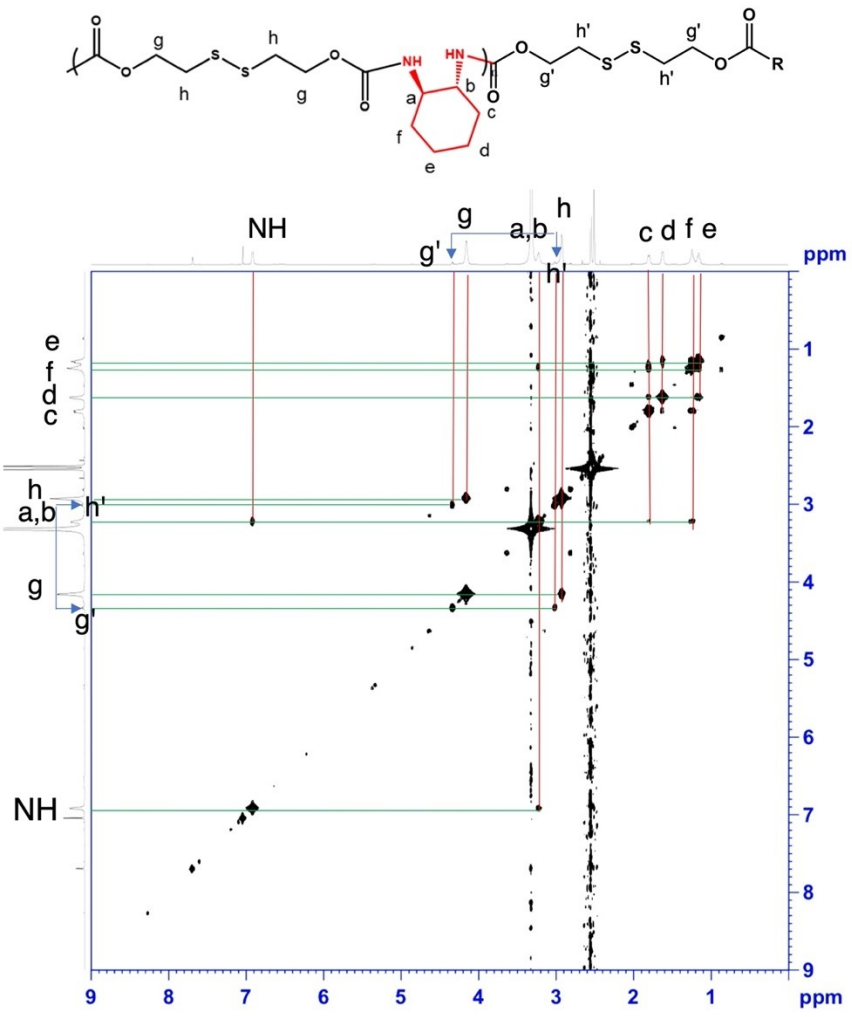

Fig. S2. 2D NMR-COSY spectrum of DSS-dach in DMSO-d_6.

Fig. S3. ^{1}H NMR spectrum of DSS-Pt(dach)Cl_2 in DMSO-d_6.

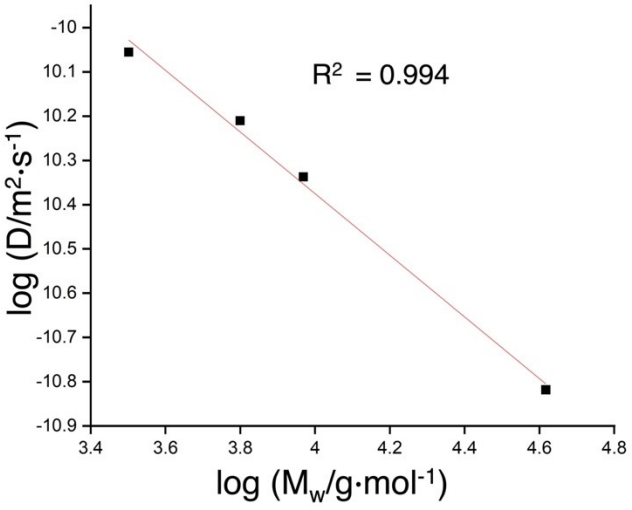

Fig. S4. Diffusion coefficients (D) versus molecular weights of poly(ethylene glycol) determined by DOSY-NMR spectroscopy in DMSO-d_6.

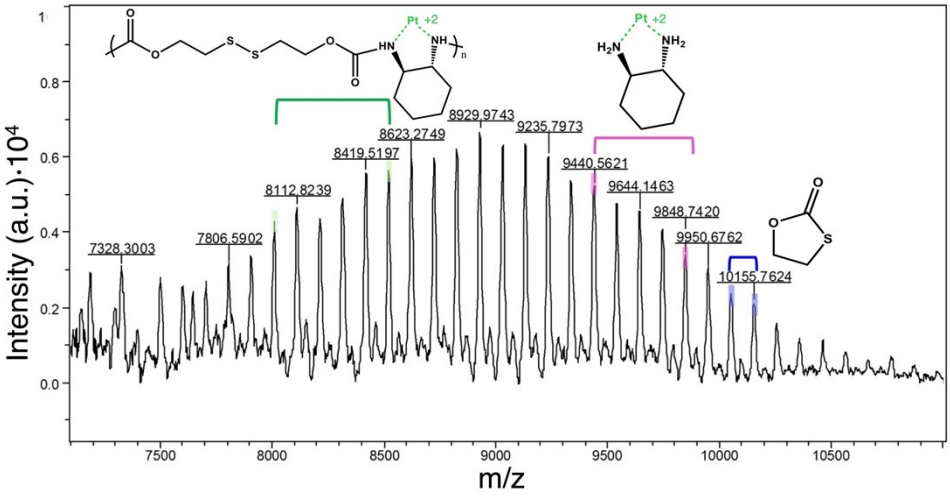

Fig. S5. MALDI-TOF mass spectrum of DSS-Pt(dach)Cl_2. The m/z values represent the mass-to-charge ratios.

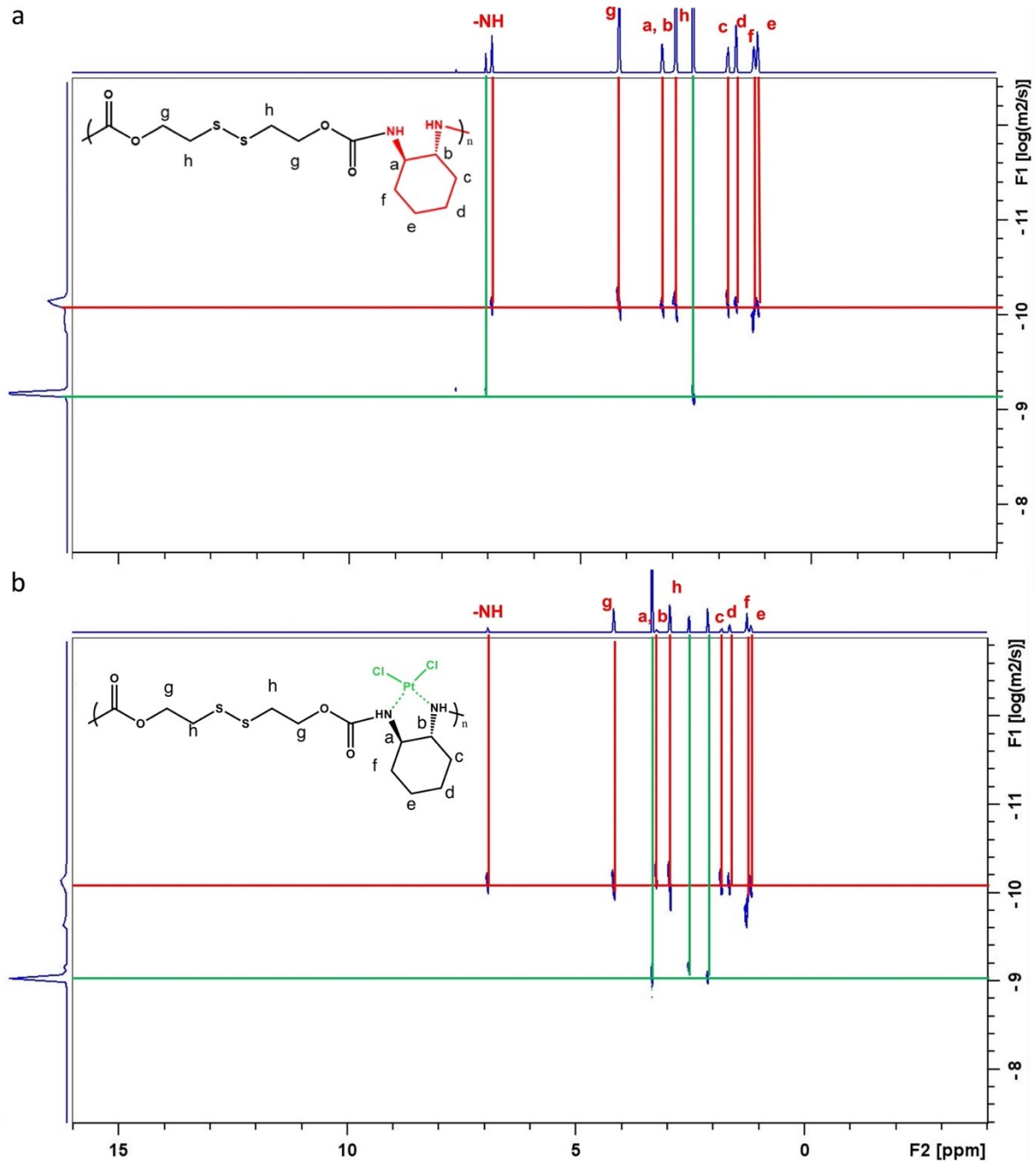

Fig. S6. 2D NMR-DOSY spectra of (a) DSS-dach and (b) DSS-Pt(dach)Cl_2 in DMSO-d_6.

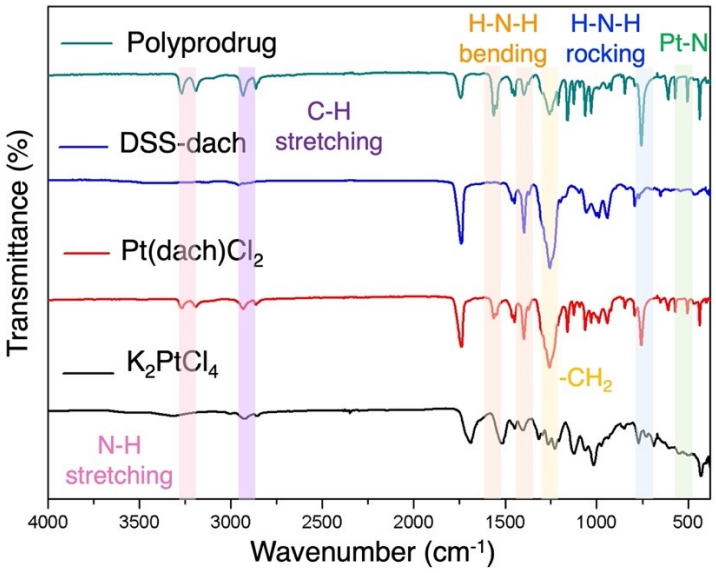

Fig. S7. FT-IR spectra of polyprodrug, DSS-dach, $Pt(dach)Cl_2$, and K_2PtCl_4.

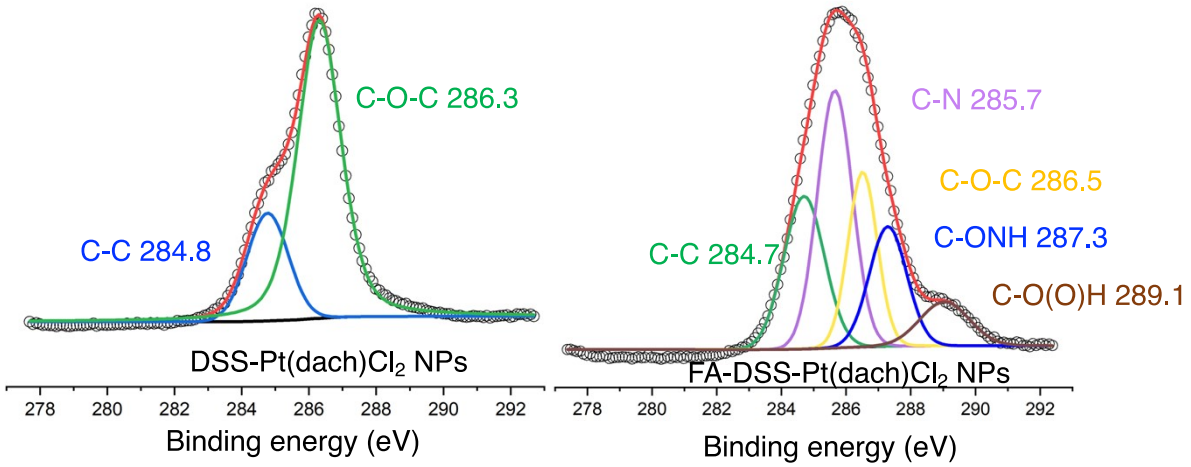

Fig. S8. C 1s XPS spectra of a) DSS-$Pt(dach)Cl_2$ NPs and b) FA-DSS-$Pt(dach)Cl_2$ NPs.

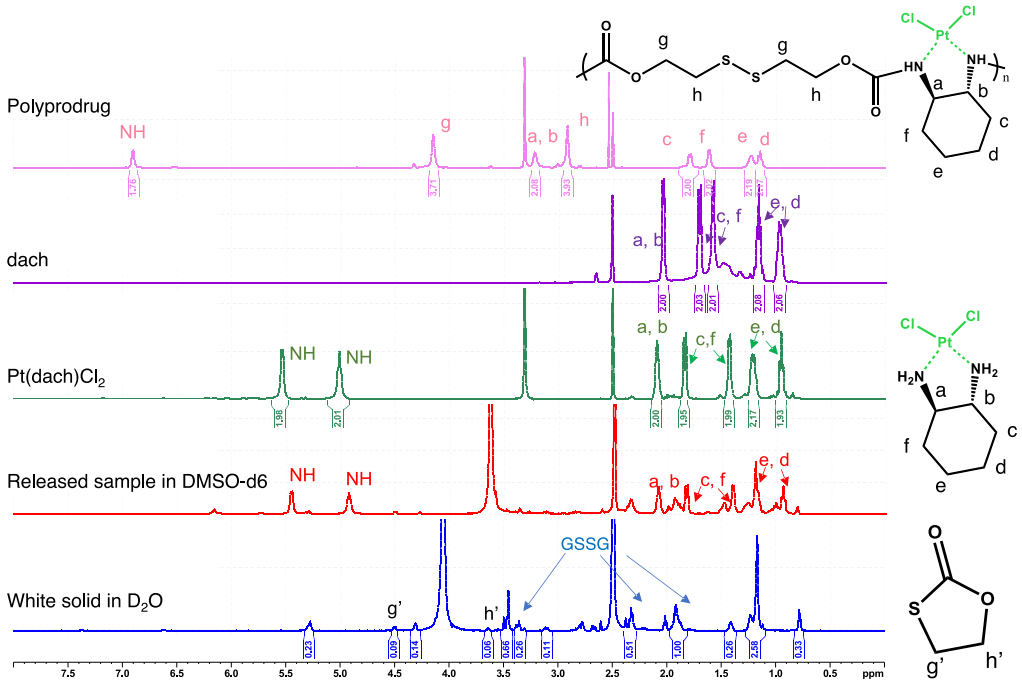

Fig. S9. ^{1}H NMR spectra of polyprodrug, dach, Pt(dach)Cl_2, and dried release medium after 72 h release in deuterated dimethyl sulfoxide (DMSO-d_6) and in deuterated water (D_2O).

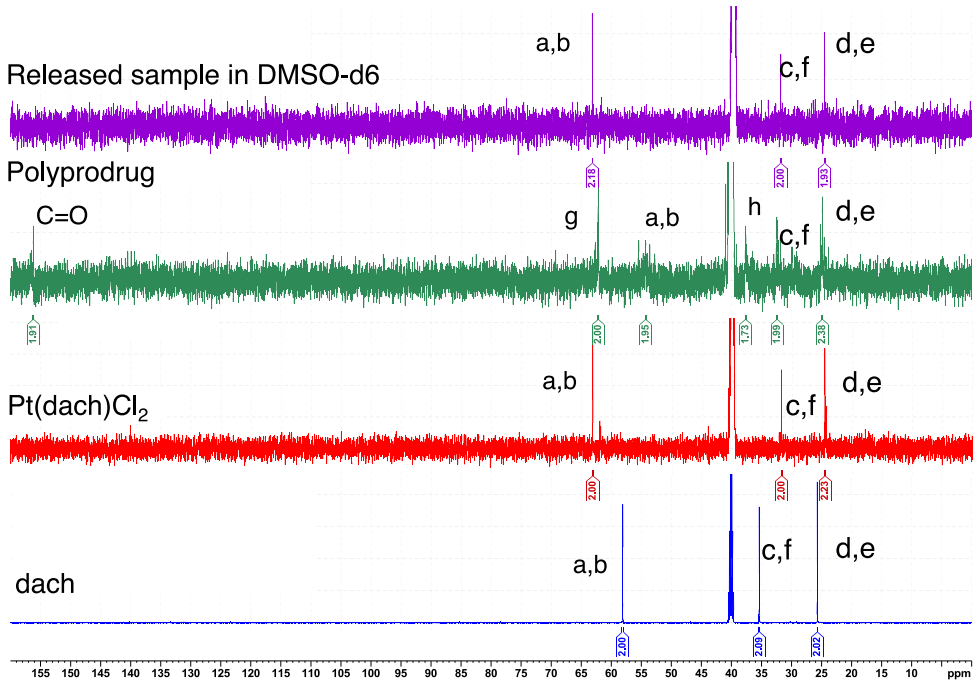

Fig. S10. ^{13}C NMR spectra of the dried release medium after release for 72 h, polyprodrug, Pt(dach)Cl_2, and dach in deuterated dimethyl sulfoxide (DMSO-d_6).

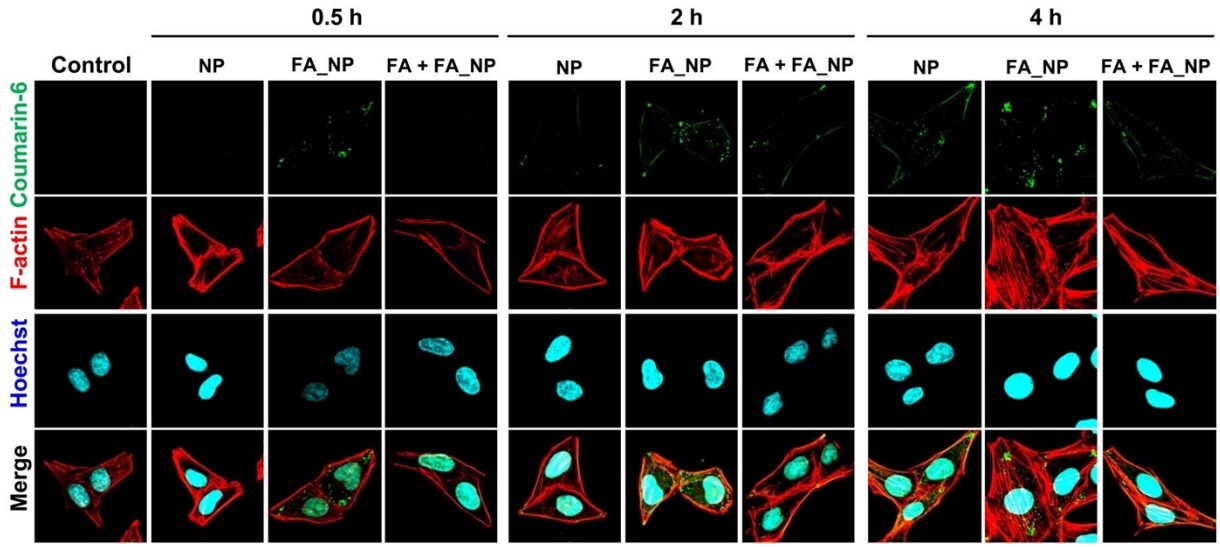

Fig. S11. Cellular uptake images of HeLa cells after 0.5, 2, and 4 h of incubation with DSS-Pt(dach)Cl_2 NPs (NP), FA-DSS-Pt(dach)Cl_2 NPs (FA_NP), and FA-DSS-Pt(dach)Cl_2 NPs+FA (FA + FA_NP). First row shows green stained coumarin-6 loaded nanoparticle; second row shows cell membrane stained red with F-actin; third row shows nuclei stained blue with Hoechst 33342 dye and fourth row shows overlay of all the three quadrants.

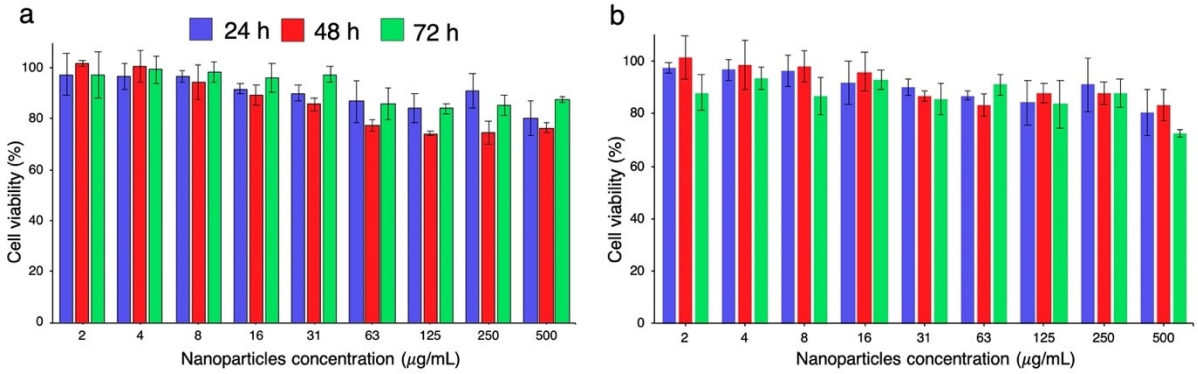

Fig. S12. Cytotoxicity of FA-DSS-dach NPs against (a) Hela cells and (b) CRL2522 (fibroblast cells) after 24, 48, and 72 h of incubation.

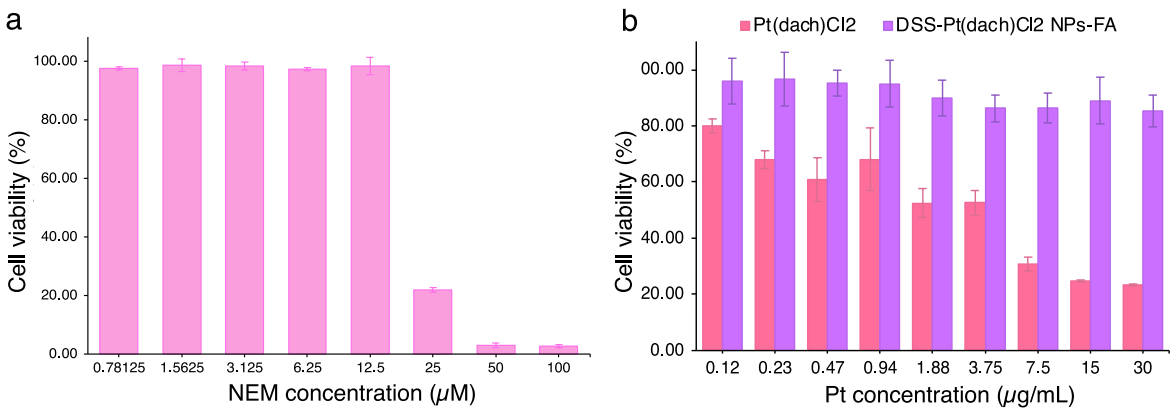

Fig. S13. (a) Viability of HeLa cells pretreated for 1 h with (a) different concentrations of *N*-ethylmaleimide (NEM) and subsequently incubated with Dulbecco's Modified Eagle Medium (DMEM) for 72 h (b) Viability of HeLa cells pretreated for 1 h with 12.5 μM NEM and then treated with Pt(dach)Cl_2 or FA-DSS-Pt(dach)Cl_2 NPs for 72 h.

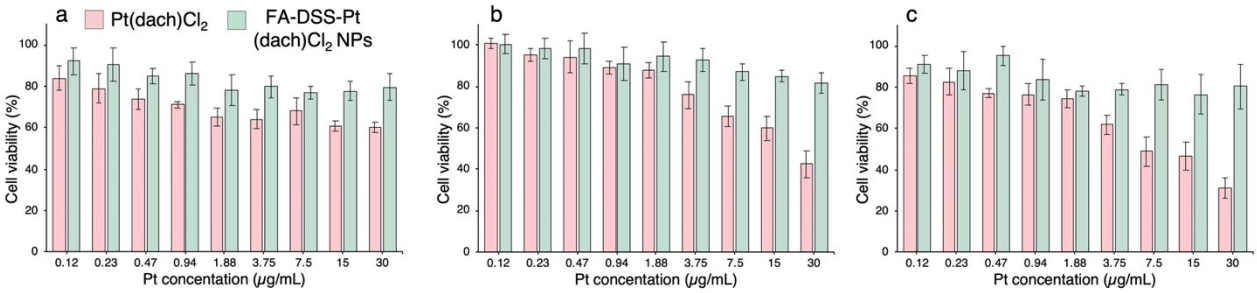

Fig. S14. Cytotoxicity of $Pt(dach)Cl_2$ and FA-DSS-$Pt(dach)Cl_2$ NPs against CRL2522 (fibroblast cells) after (a) 24, (b) 48, and (c) 72 h of incubation.