Electronic Supplementary Material (ESI) for Biomaterials Science.

Supplement

Oxygen-carrying nanoparticles based chemo-sonodynamic therapy for tumor suppression and autoimmunity activation

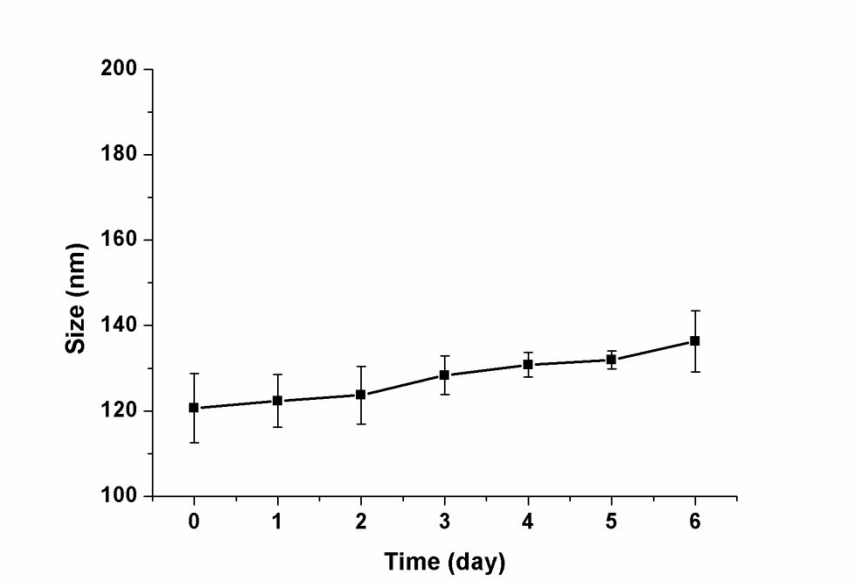

Fig. S1 The in vitro stability assay in 10% FBS within 6 day.

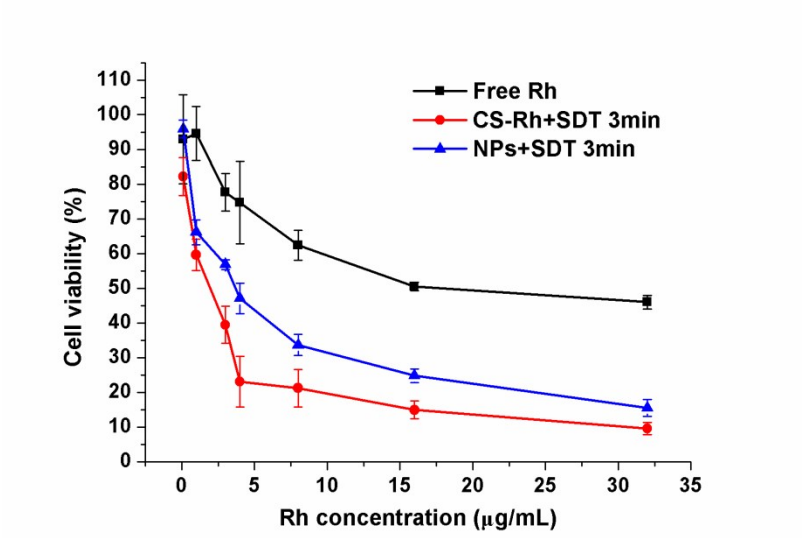

Fig. S2 The in vitro cell viability of B16F10 cells incubating with free Rh, CS-Rh

(+SDT) and NPs (+ SDT) at different concentrations, respectively.

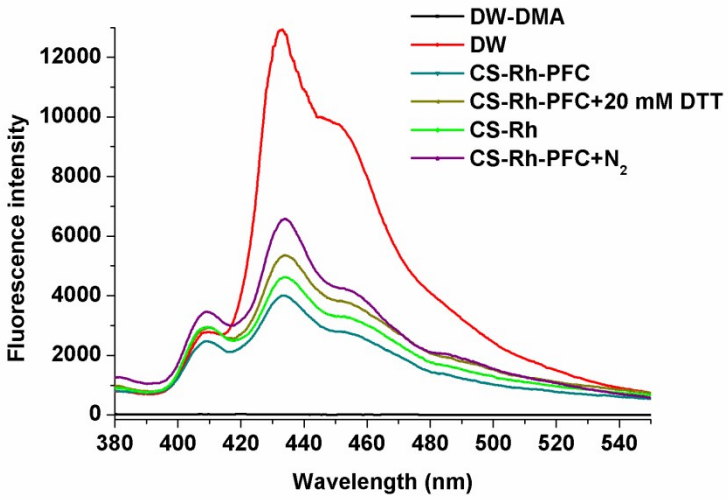

Fig. S3 The productive ability of singlet oxygen in different preparations was measured with DMA after SDT treatment.

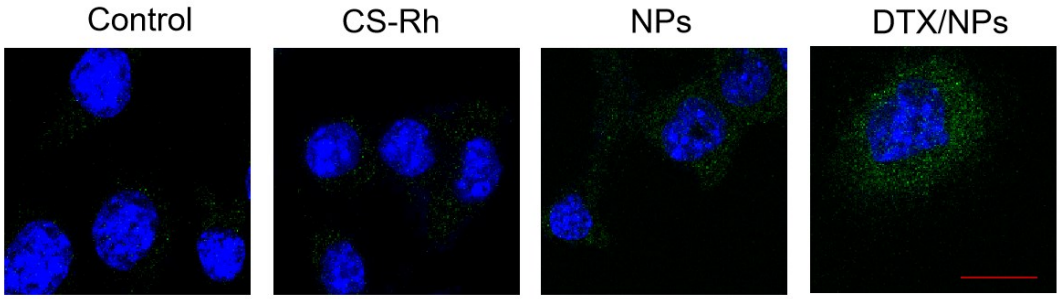

Fig. S4 The in vitro CRT exposure images by CLSM of B16F10 cells after incubating with different preparations without SDT treatment. Scar bar: 10 μm.

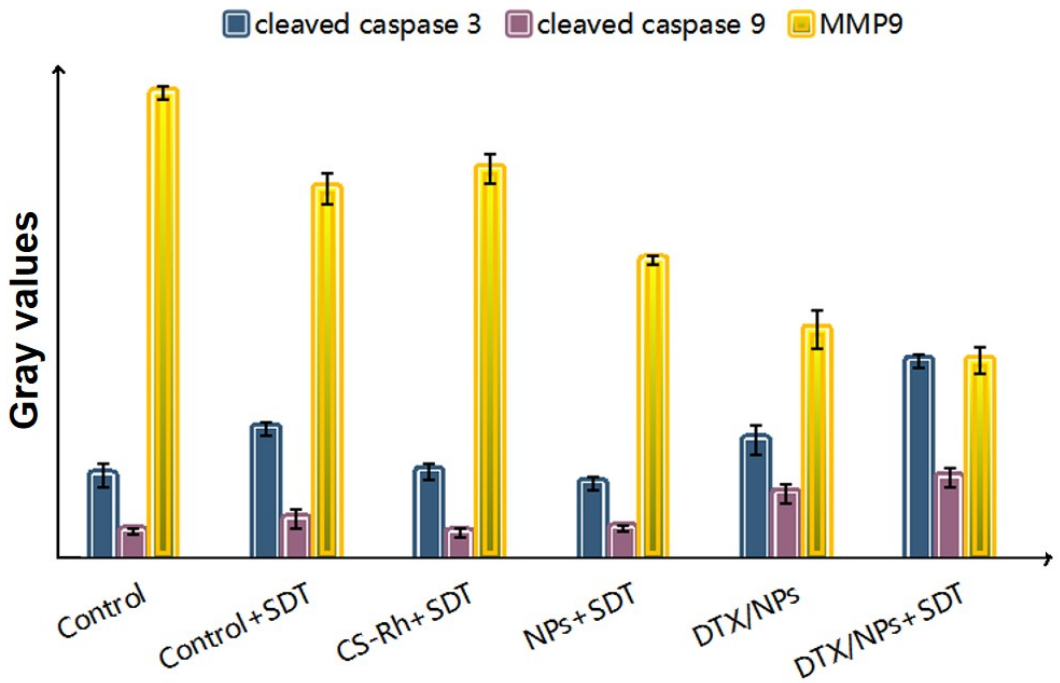

Fig. S5 The relative gray values of cleaved caspase 3, cleaved caspase 9 and MMP 9 in western blot assays.

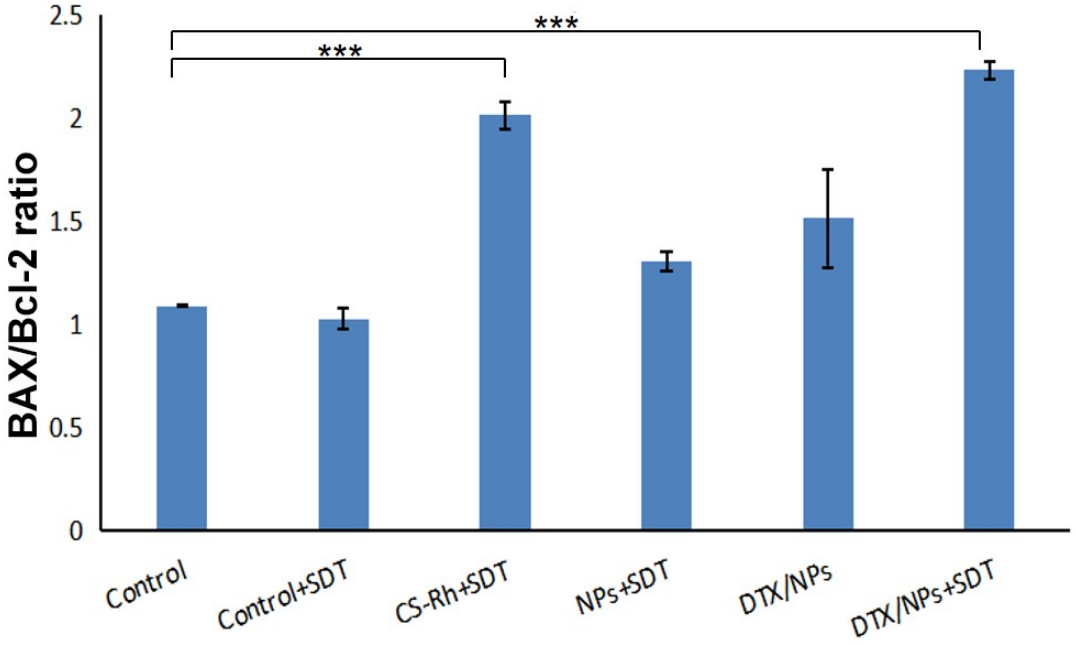

Fig. S6 The ratios of gray values of BAX to Bcl-2 proteins after incubating with different preparations with/without SDT treatment.

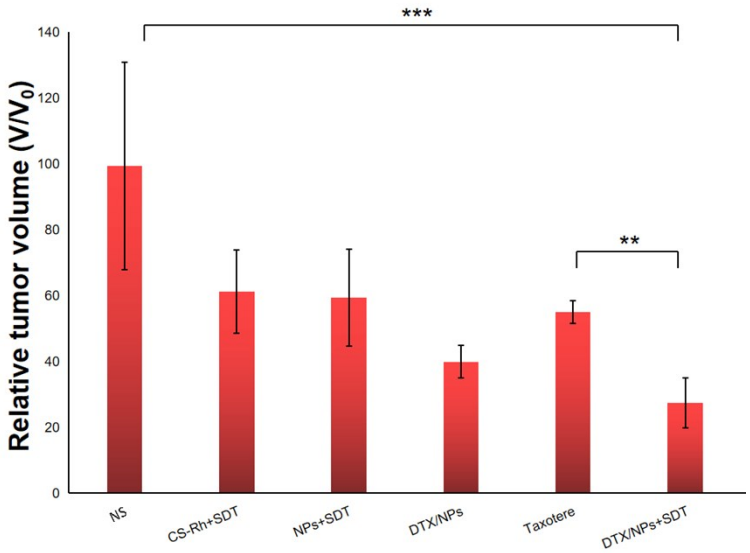

Fig.S7 The relative tumor volume of B16F10 tumor-bearing mice after different treatment on Day 14. **p<0.01, ***p<0.001.

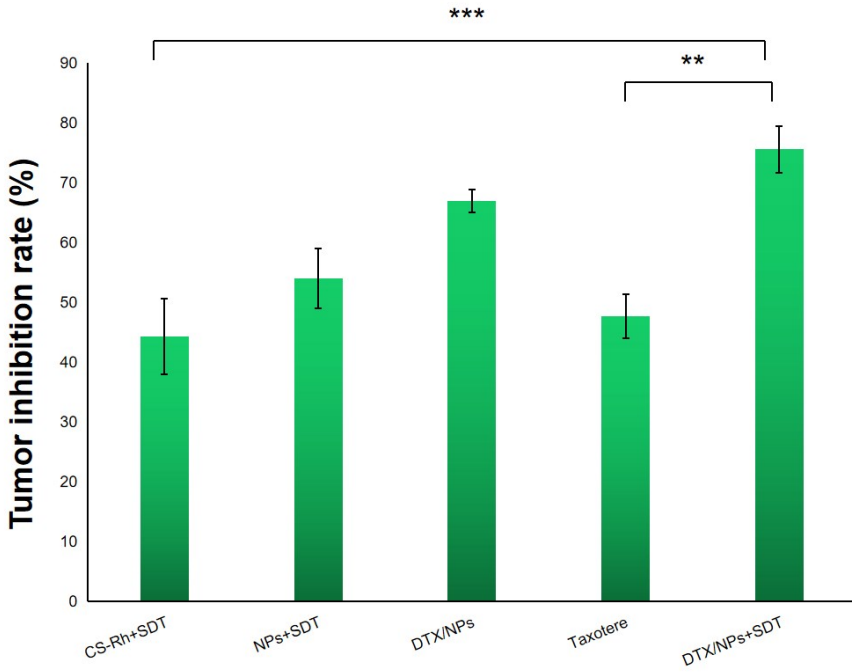

Fig. S8 Tumor inhibition rate of B16F10 tumor-bearing mice with on Day 14. **p<0.01, ***p<0.001.

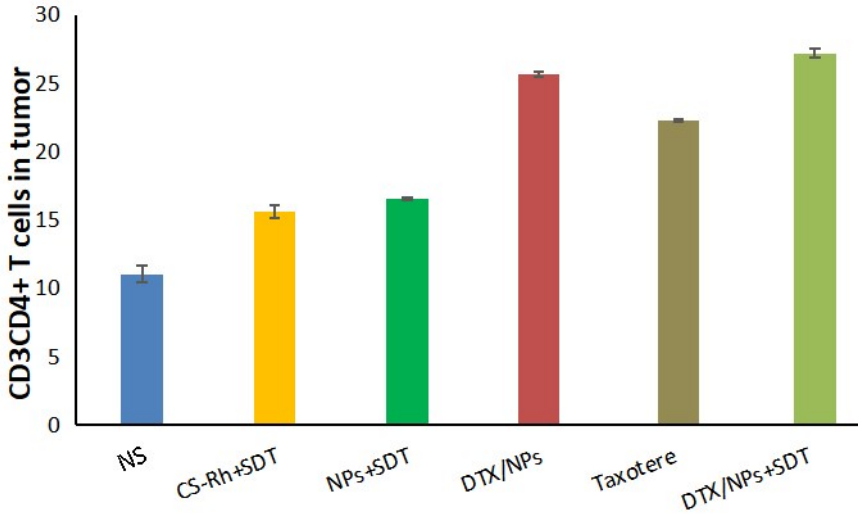

Fig. S9 The proportion of $CD3CD4^+$ T cells after different treatment with/without SDT in tumor tissues.

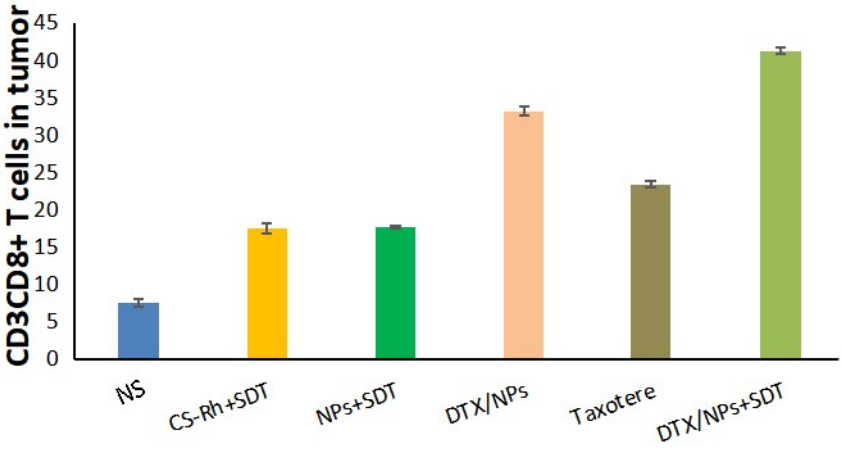

Fig. S10 The proportion of $CD3CD8^+$ T cells after different treatment with/without SDT in tumor tissues.

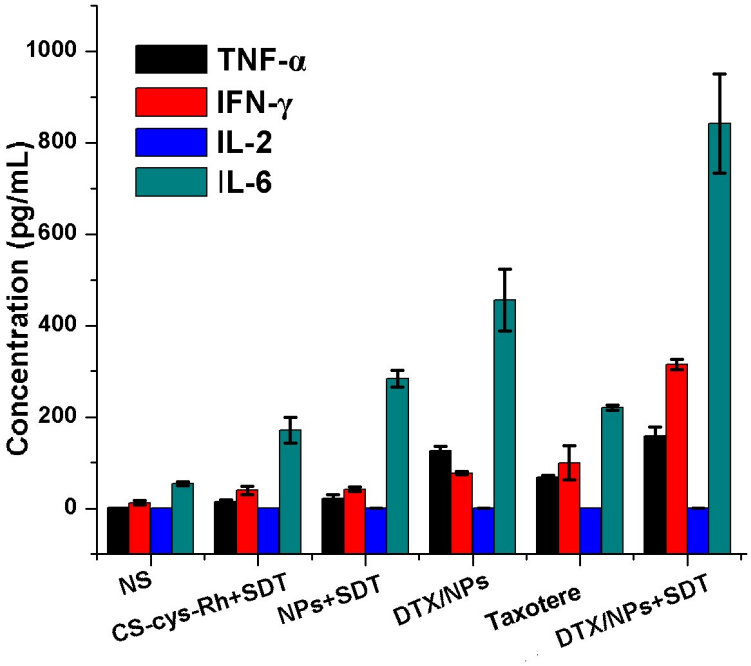

Fig. S11 The cytokine contents of IL-6, IL-2, TNF-α and INF-γ in the serum of B16F10 tumor-bearing mice after treated with different preparations and SDT on Day 14.

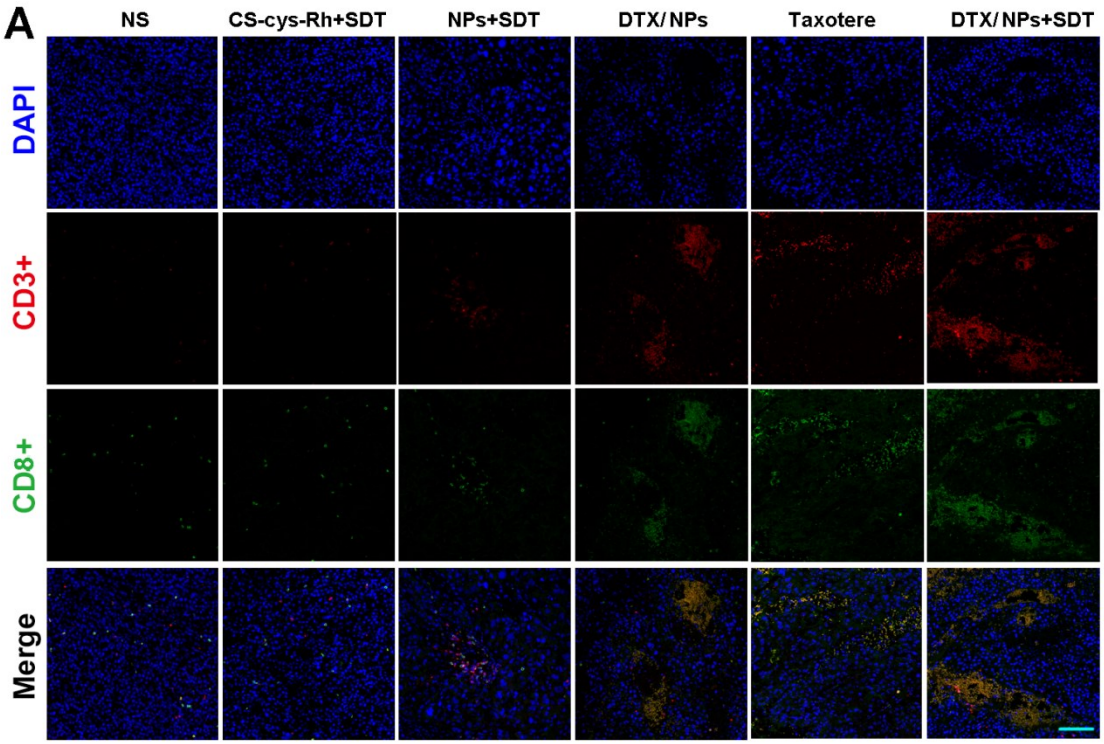

Fig. S12 CD3+CD8+ immunofluorescence staining of B16F10 tumor tissues after different therapies. Scar bar, 100 μm.

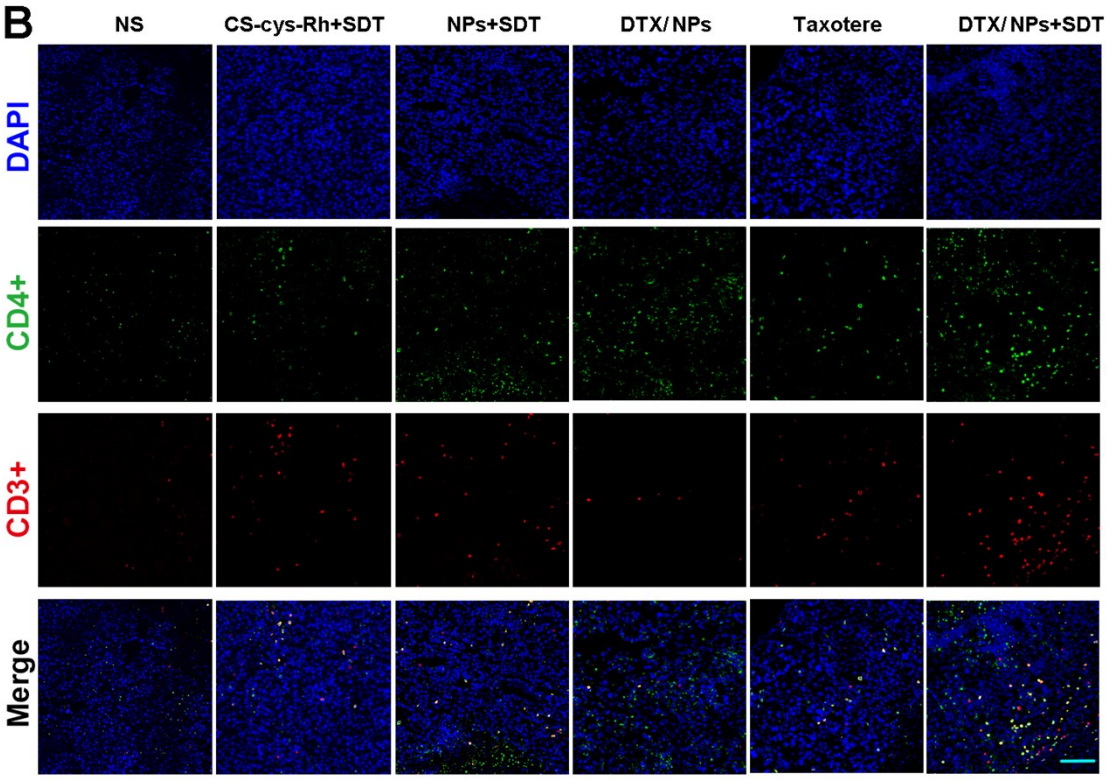

Fig. S13 CD3+CD4+ immunofluorescence staining of B16F10 tumor tissues after different therapies. Scar bar, 100 μm.

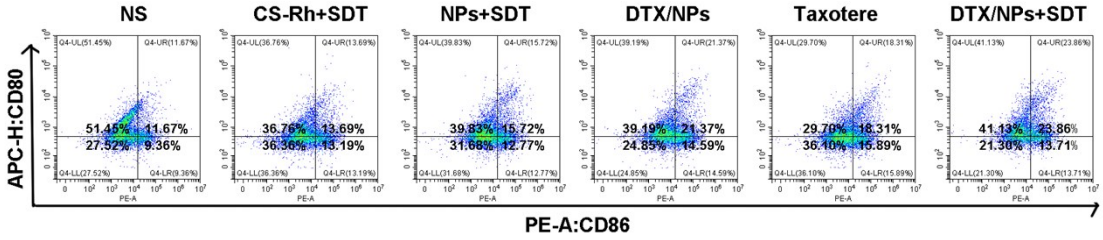

Fig. S14 The FCM result of DCs maturation in tumor draining lymph nodes after different treatment in mice.