Saponin-mediated cell membrane interference nanomedicine potentiates tumor chemo-immunotherapy via perforin-granzyme-like mechanism

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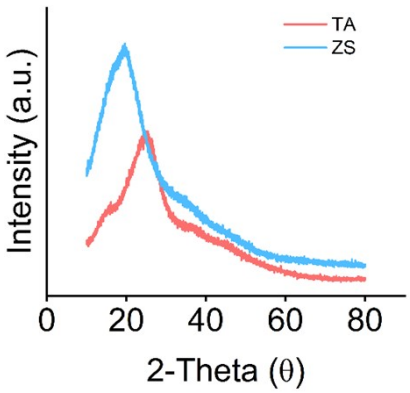

Figure S1. XRD patterns of TA and ZS.

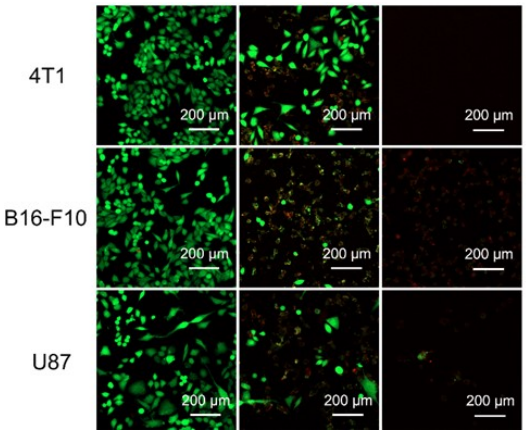

Figure S2. Calcein-AM/PI staining 4T1, B16-F10 and U87 after ZS treatment (control, 100 and 200 μg mL^{-1}).

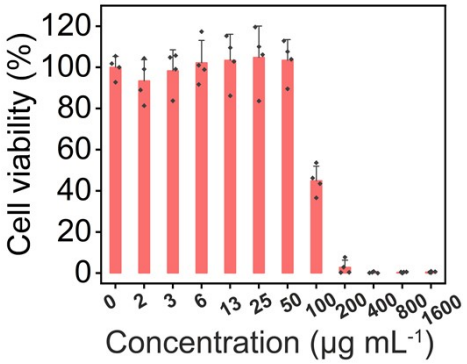

Figure S3. Cell viability of 4T1 cells after treated with ZS for 24 h.

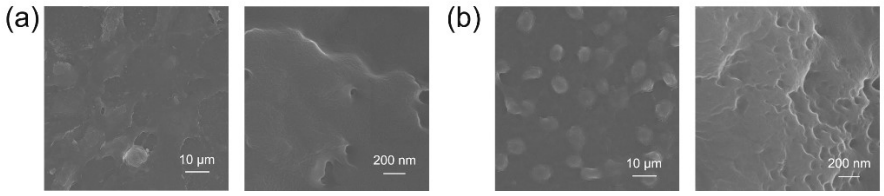

Figure S4. SEM images of 4T1 cells with (b) or without (a) ZS treatment.

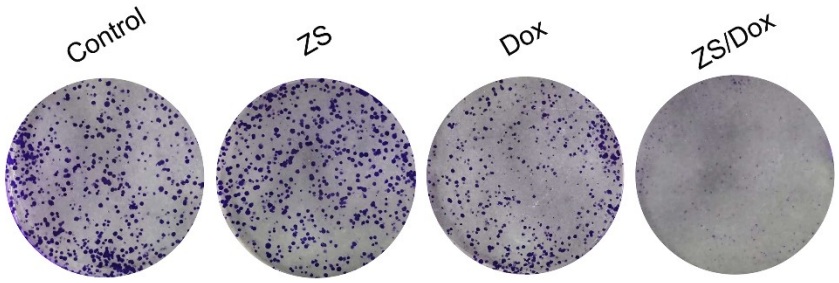

Figure S5. Cell cloning formation experiment after different treatment (control, ZS (low), Dox and ZS/Dox). The cells were fixed and stained with crystal violet.

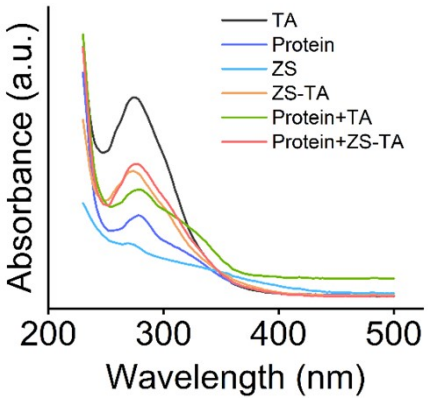

Figure S6. UV-vis spectrum of different agents (TA, protein, ZS, ZS-TA, protein+TA and protein+ZS-TA). The protein was obtained by lysing 4T1 cells using US.

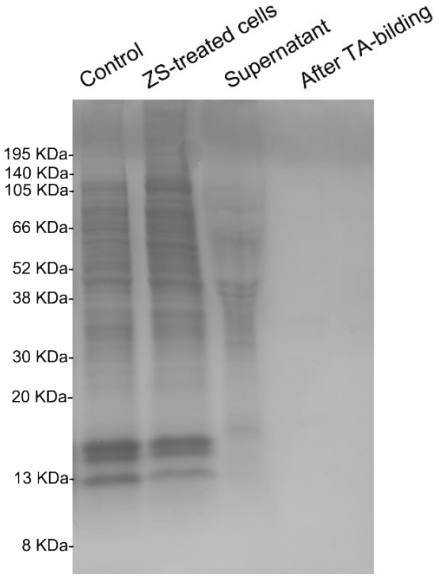

Figure S7. SDS-PAGE of different samples, lysis mediums obtained by US was set as control.

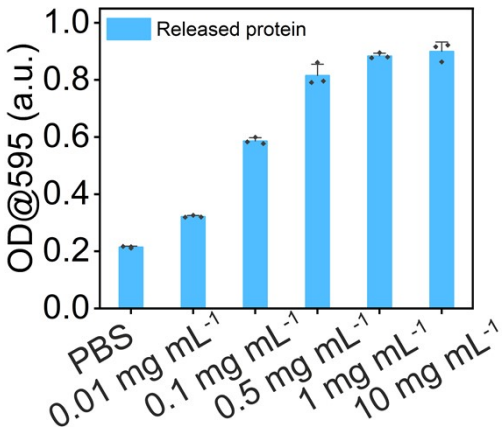

Figure S8. The determination of released protein after ZS treatment by Bradford assay.

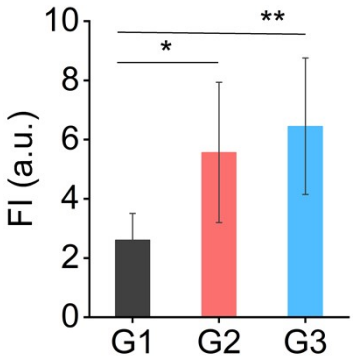

Figure S9. Fluorescent quantitative analysis of Figure 4b (G1: control, G2: ZS and G3: ZS-TA).

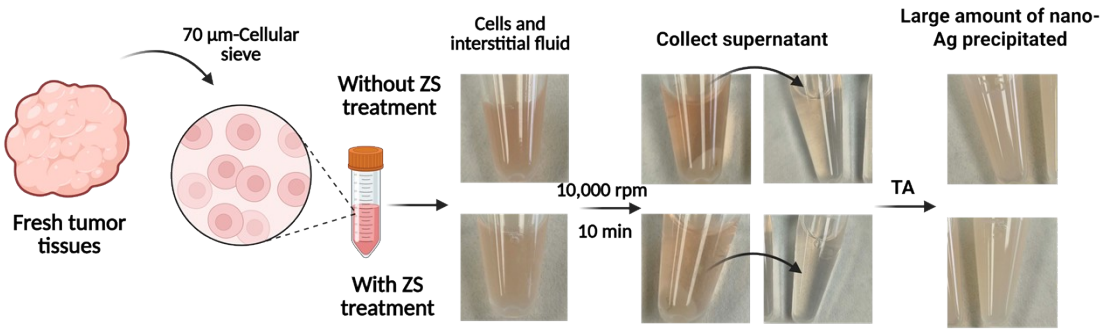

Figure S10. Schematic illustration of the formation of nano-Ag.

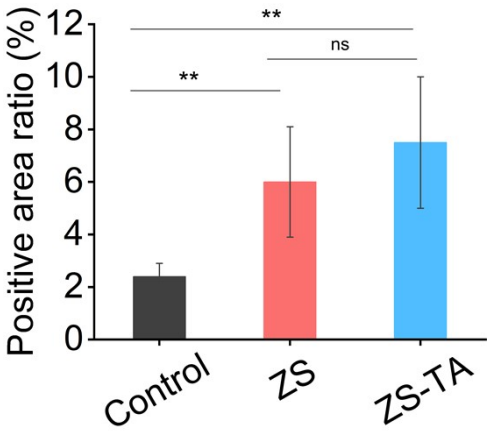

Figure S11. Quantitative analysis of CD45+ cells in Figure 5h.

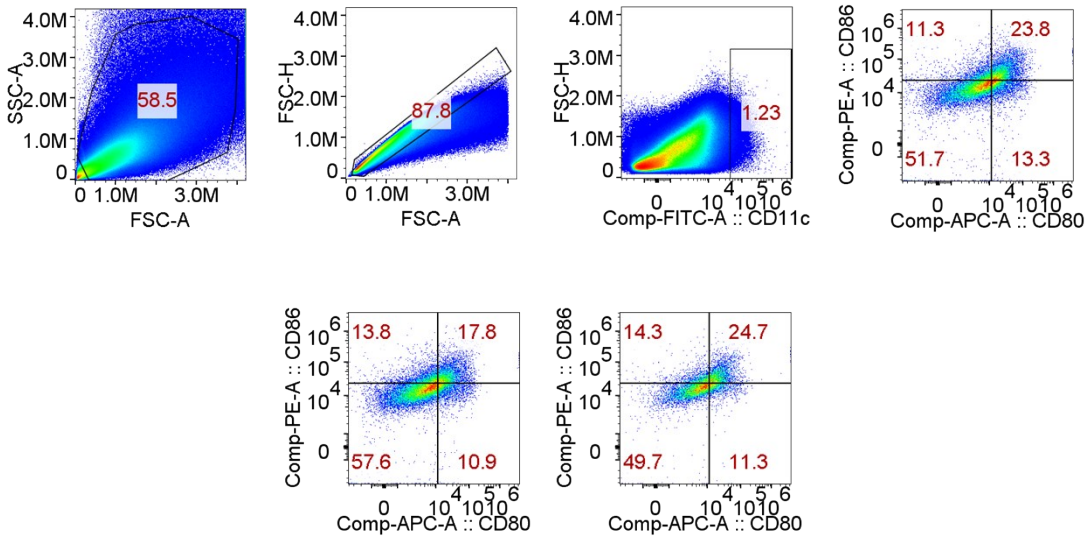

Figure S12. Steps of flow cytometry gating for CD80+ CD86+ DC analysis.

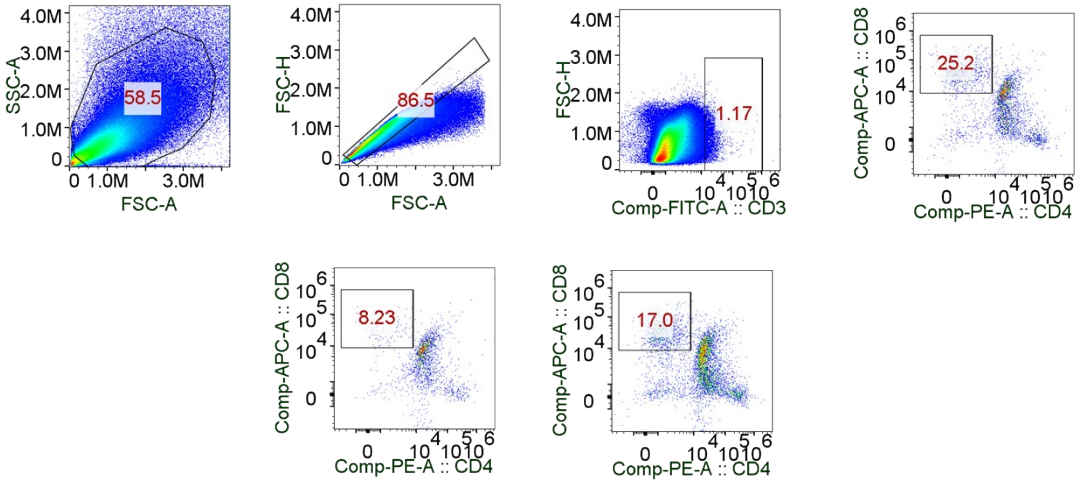

Figure S13. Steps of flow cytometry gating for CD3+ CD4+/CD8+ T cell analysis.

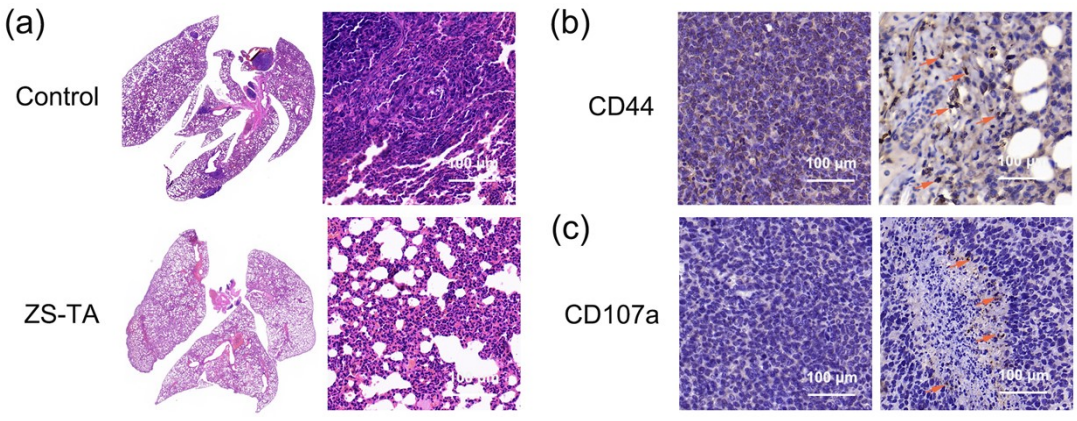

Figure S14. (a) H&E staining lung with or without ZS-TA treatment. CD44 (b) and CD107a

(c) staining immune-histochemistry of tumor tissues. Scale bar: 100 μm.

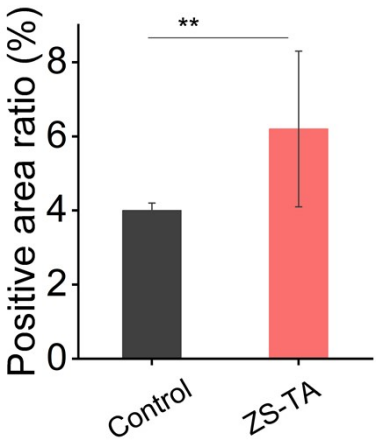

Figure S15. Quantitative analysis of CD44+ cells in Figure S14.