

***In Vivo* Mechanisms of Resveratrol Liposomes in Targeting the TLR4/NLRP3 Pathway in Lung Cancer**

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Supplementary materials

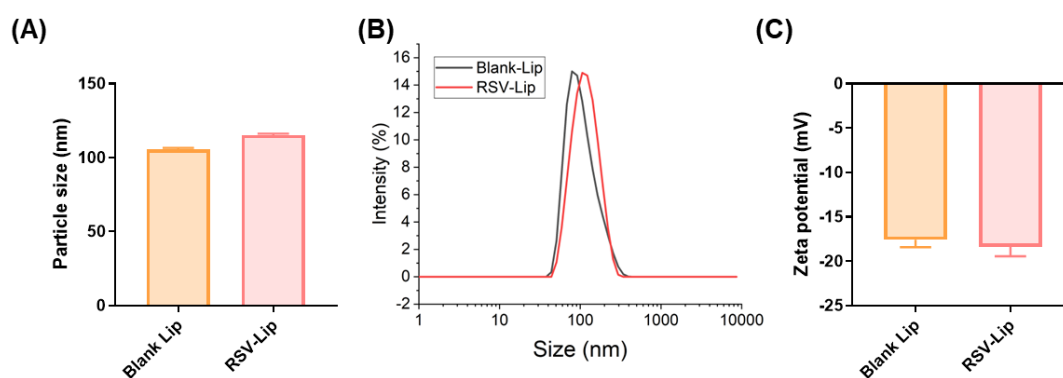


Figure S1. Characterization of resveratrol liposomes and blank liposomes. (A) Average particle sizes, (B) size distribution, (C) zeta potential of liposome (n=3).

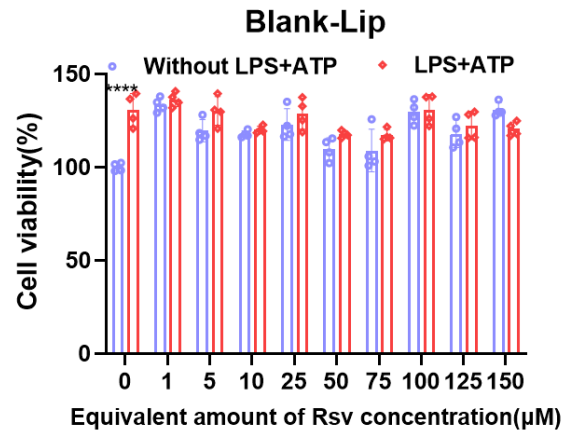


Figure S2. The LLC cells were treated with blank liposome for 24 h with or without inflammasome activation (n=4).

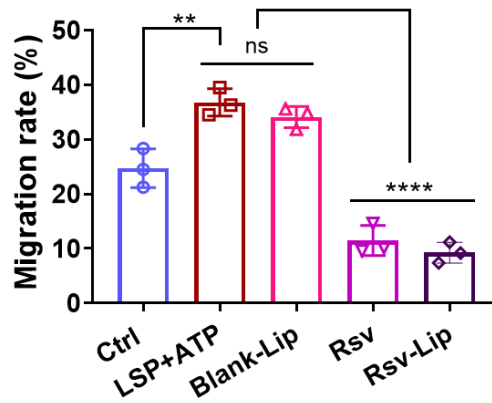


Figure S3. Quantification of migration rate after treatment with 25 μM of resveratrol and resveratrol liposome for 24 hours. Data are presented as mean ± standard deviation, n=3, (** $p < 0.01$, **** $p < 0.0001$, ns indicates no statistically significant difference between samples).

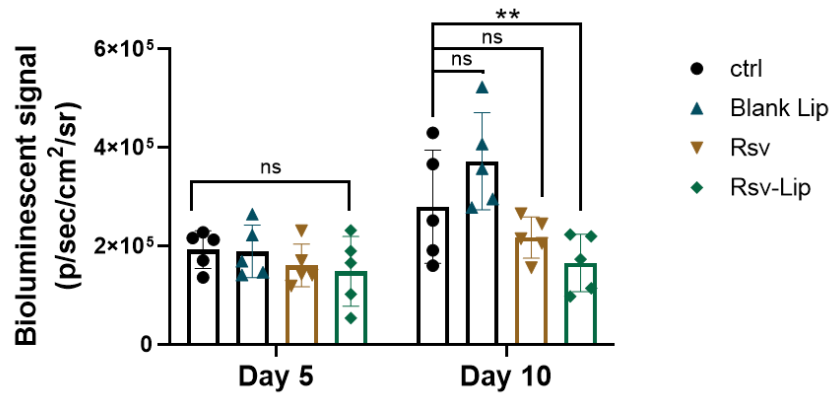


Figure R4. Quantitation of tumor burdens determined by bioluminescence signal at day 5 and day 10. Data are presented as mean $\pm$ standard deviation, $n=5$, (** $p < 0.01$, ns indicates no statistically significant difference between samples)

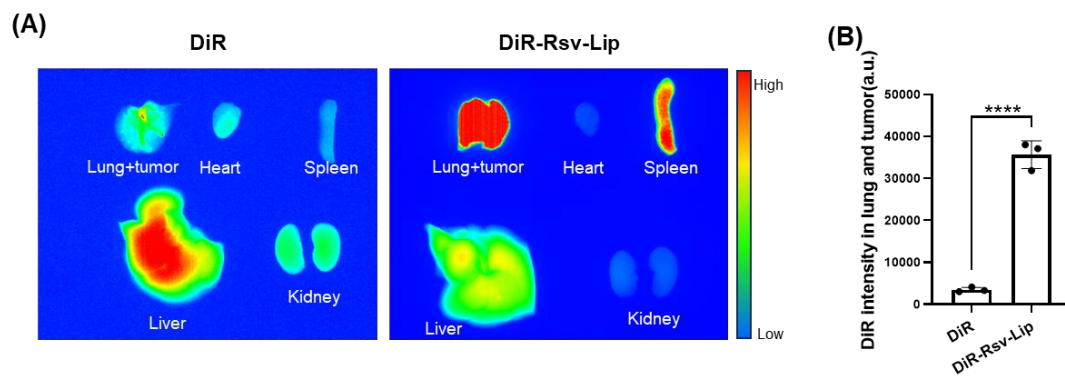


Figure S5. Biodistribution of DiR-labeled resveratrol liposomes and DiR in LLC tumor-bearing mice 24 h post-injection. (A) Representative fluorescence images of excised organs. (B) DiR fluorescence intensity in lung and tumors. Data are presented as mean $\pm$ standard deviation, $n=3$, (**** $p < 0.0001$, ns indicates no statistically significant difference between samples)

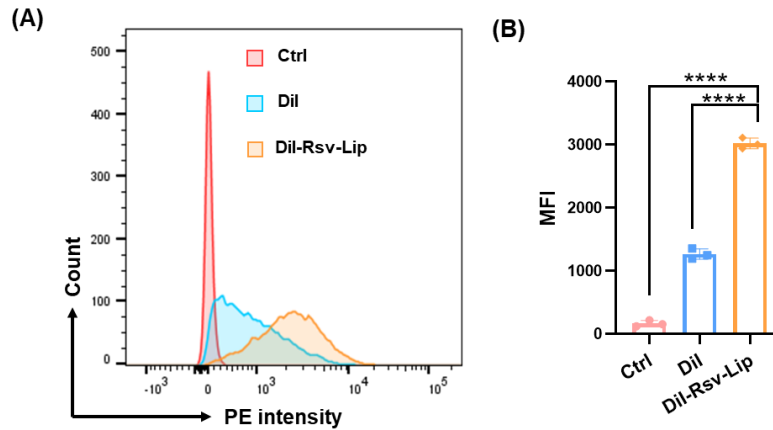


Figure S6. Cell uptake of DiI-label resveratrol liposomes by LLC cells. (A) Representative flow cytometry profiles and (B) uptake efficiency of LLC cells after treatment with DiI and DiI-label resveratrol liposomes. Data are presented as mean $\pm$ standard deviation, $n=3$ (**** $p < 0.0001$).

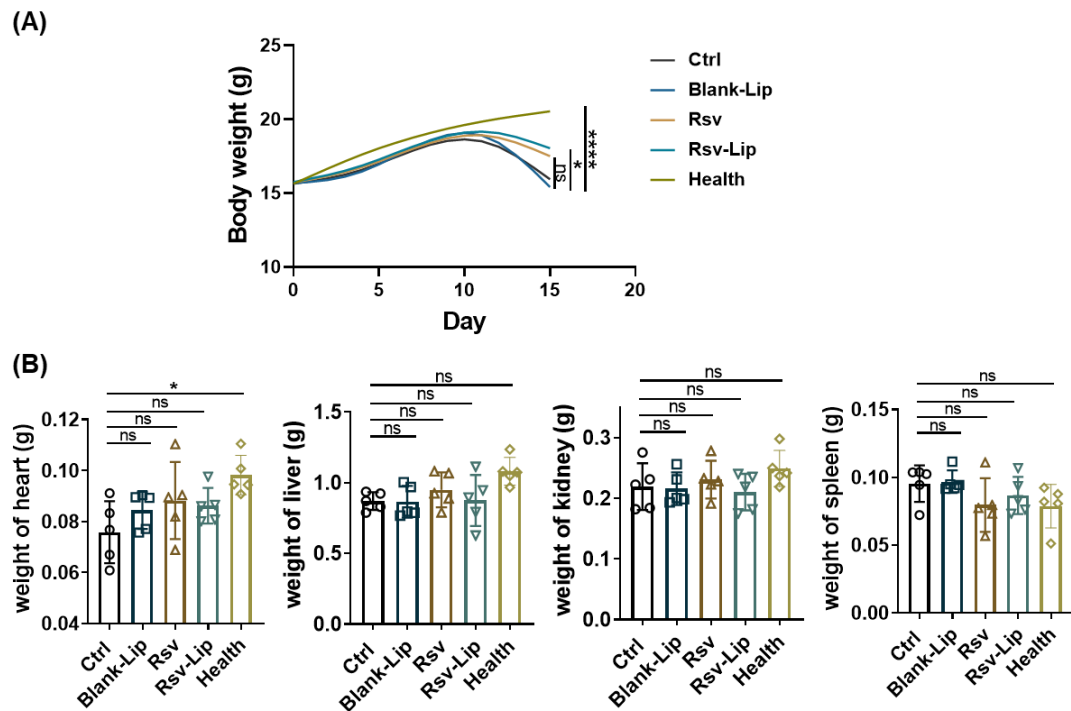


Figure S7. Safety Evaluation of Resveratrol and Its Liposomes in LLC In Situ Lung Cancer Mice. (A) Changes in body weight; (B) Weights of major organs (heart, liver, kidneys, and spleen) at the end of the experiment. Data are presented as mean $\pm$ standard deviation, $n=5$ (* $p < 0.05$, **** $p < 0.0001$, ns indicates no statistically significant difference between samples).

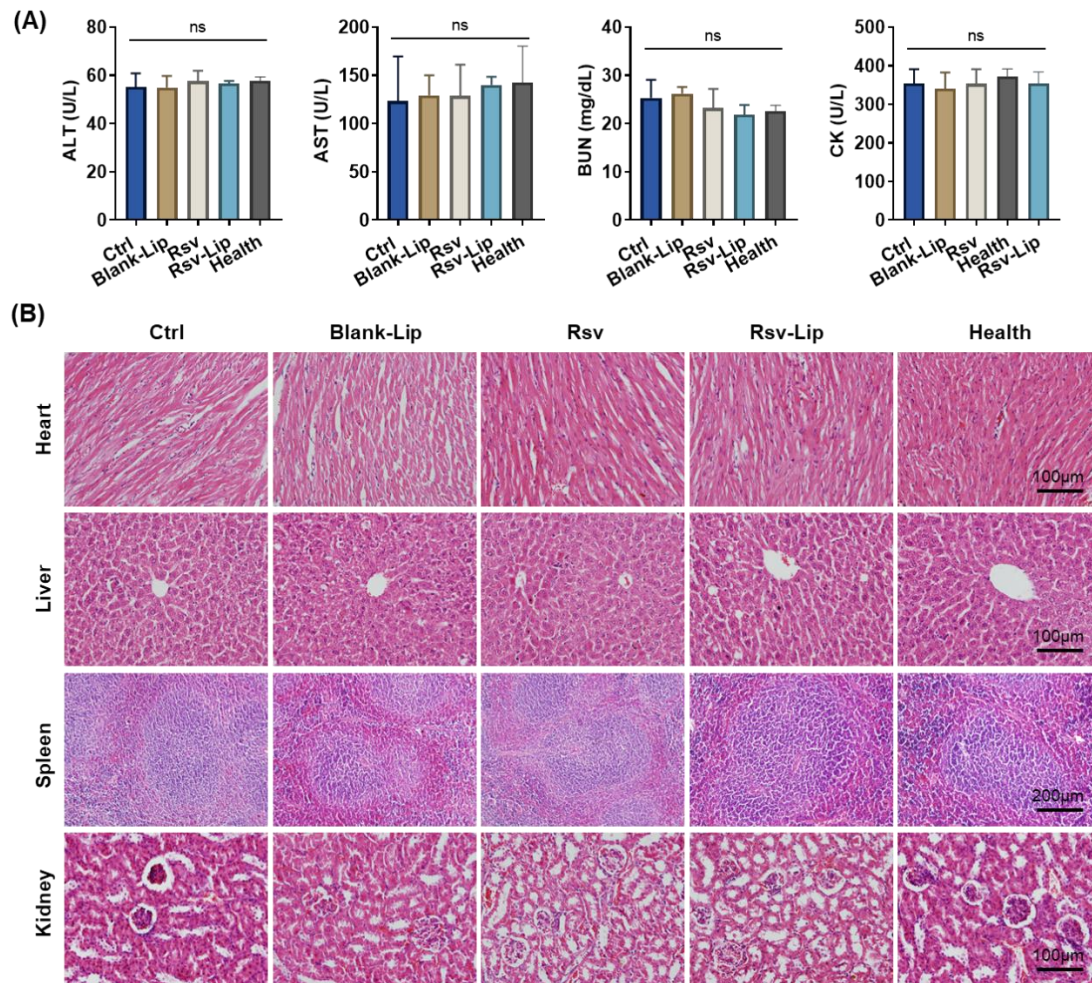


Figure S8. *In vivo* biocompatibility evaluation after treatment with resveratrol liposomes. (A) Blood biochemistry and (B) H&E staining of major organ at the endpoint of the experiment. Data are presented as mean $\pm$ standard deviation, $n=3$, ns indicates no statistically significant difference between samples.

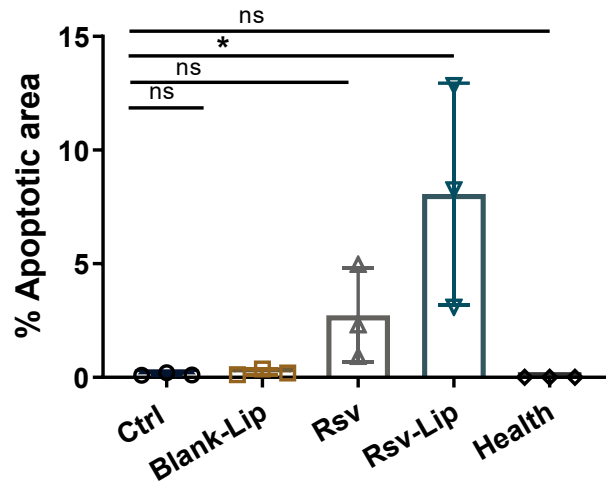


Figure S9. Quantification of the TUNEL-positive tumor area. Data are presented as mean $\pm$ standard deviation, $n=3$ (* $p < 0.05$, ns indicates no statistically significant difference between samples).

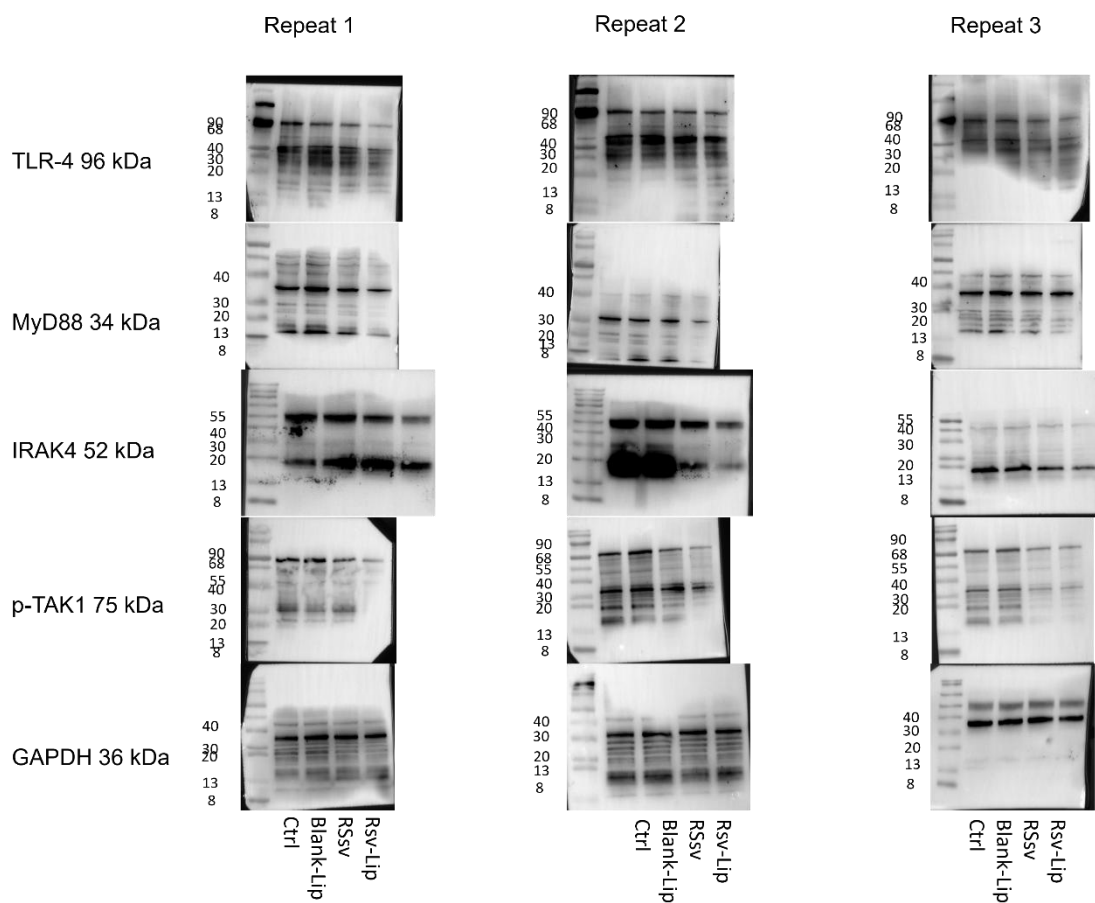


Figure S10. Original western blot scans of TLR4, MyD88, IRAK4, and p-TAK1 for three repeats in Figure 4E.

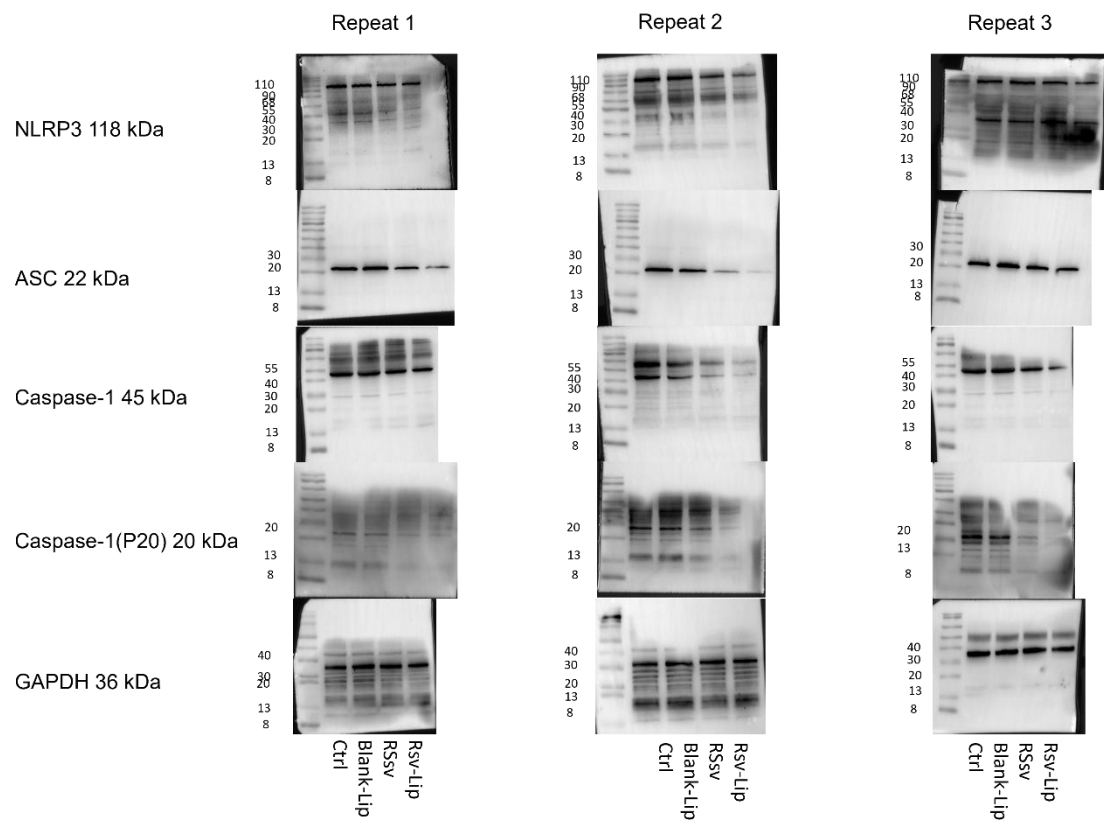


Figure S11. Original western blot scans of NLRP3, ASC, Casp-1, Casp-1(P20) for three repeats in Figure 5C.

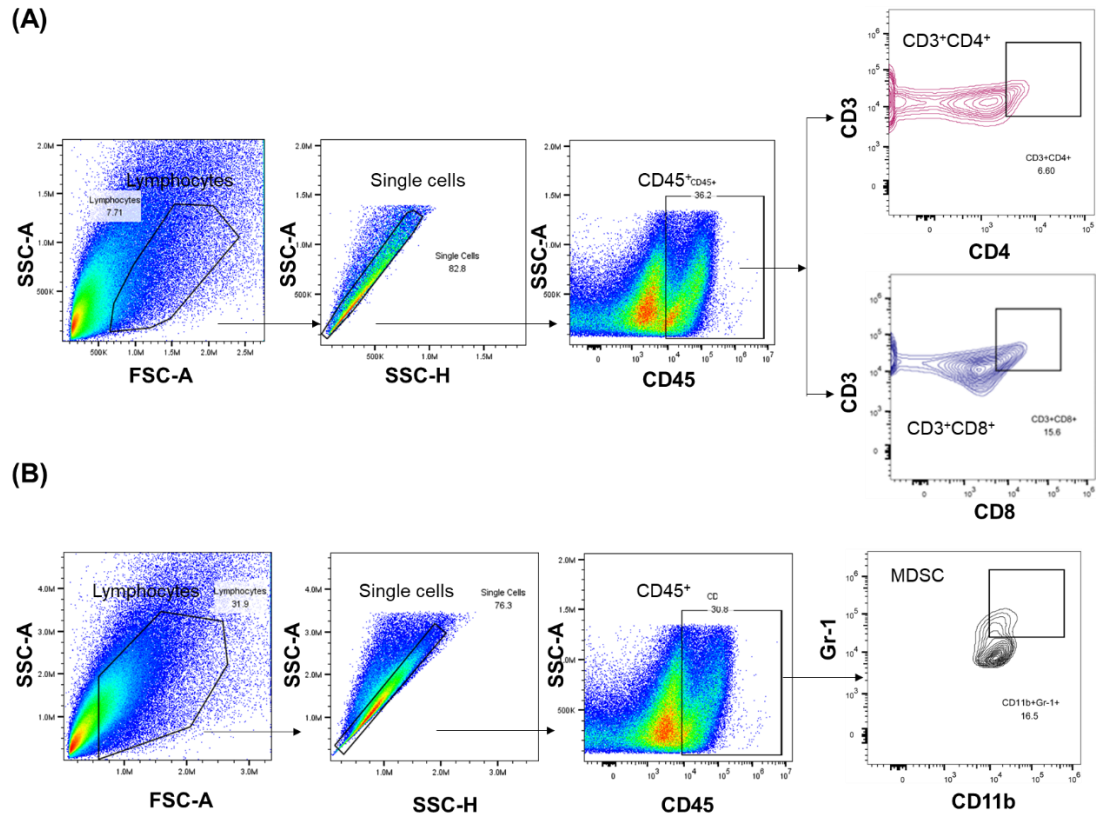


Figure S12. Representative flow cytometry profiles of the gating strategy. (A) Typical flow cytometry gating strategy to distinguish T lymphocytes within the tumor. (B) Typical flow cytometry gating strategy to distinguish MDSC within the tumor.