

Supporting Information for

Lipid-mediated Delivery of CD47 siRNA aids JQ1 in ensuring simultaneous downregulation of PD-L1 and CD47 and hence antitumor immunotherapy efficacy

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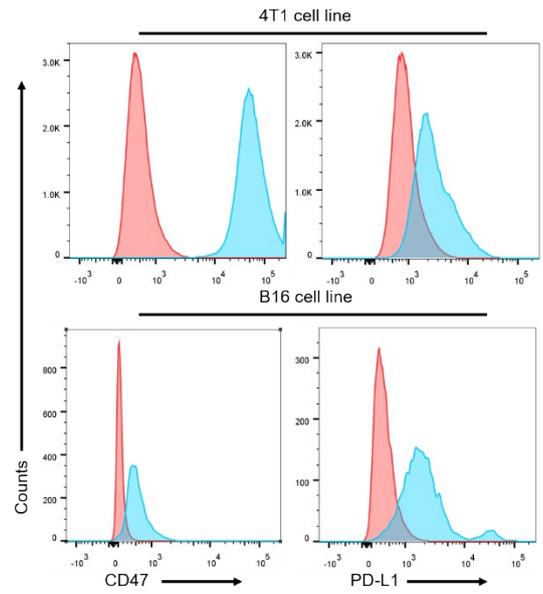


Figure S1. The expression of CD47 and PD-L1 on the surface of 4T1 and B16 cells measured by Flow cytometry.

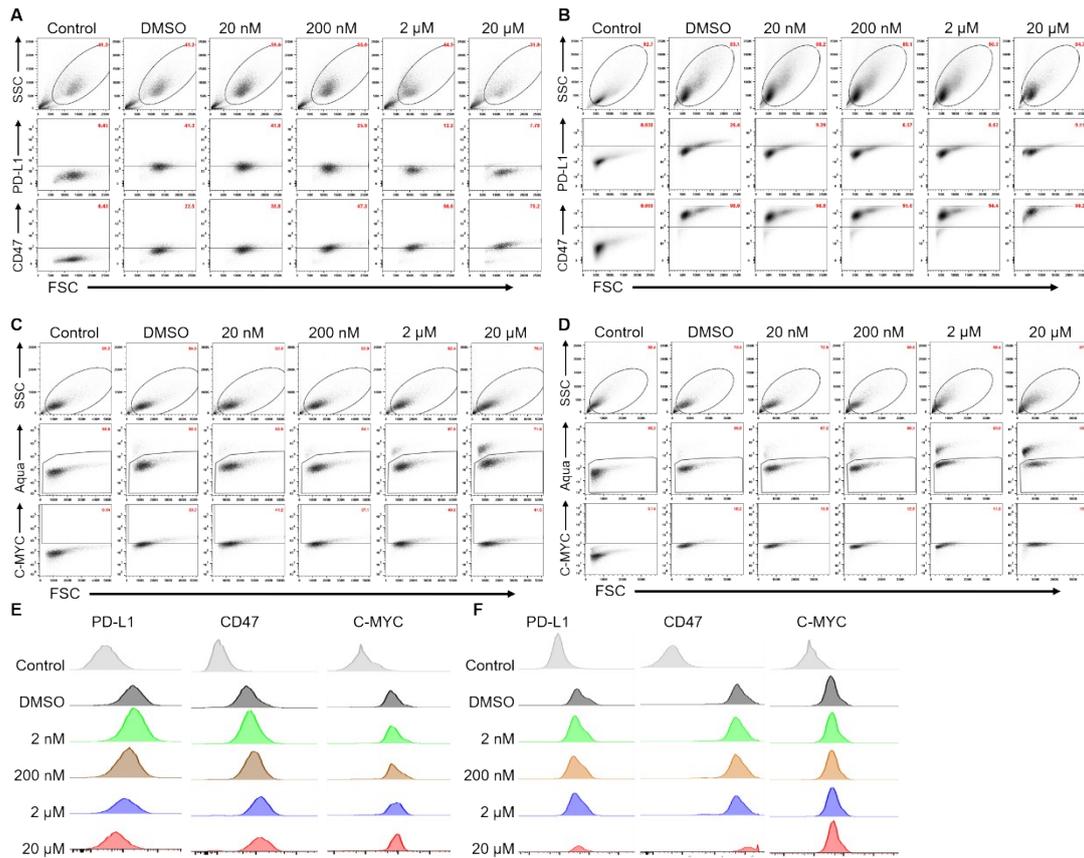


Figure S2. Flow cytometry showing the effect of JQ1 on the expression of PD-L1 and CD47 on the surface of tumor cells in vitro. The expression of PD-L1 and CD47 on the surface of tumor cells was detected by flow cytometry. (A) 4T1 tumor cells. (C) B16 tumor cells. The expression of C-MYC on the surface of tumor cells was detected by flow cytometry. (B) 4T1 tumor cells. (D) B16 tumor cells. Mean fluorescence intensity of PD-L1, CD47 and C-MYC expressed on the surface of tumor cells. (E) 4T1 tumor cells. (F) B16 tumor cells.

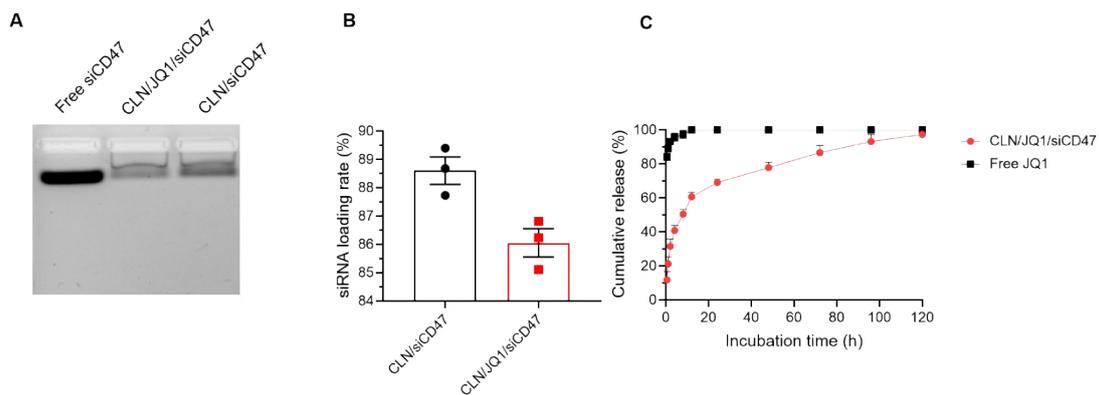


Figure S3. Determination of CD47siRNA encapsulation efficiency and JQ1 drug release determination. **(A)** RNA agarose gel electrophoresis. The unencapsulated siRNA during the preparation of the CLN/JQ-1/siCD47 and CLN/siCD47 was measured by RNA agarose gel electrophoresis. **(B)** The siRNA loading efficiencies of CLN/siCD47 and CLN/JQ-1/siCD47. **(C)** The cumulative release of JQ-1 from CLN/JQ-1/siCD47 and free JQ1. Data are presented as mean \pm SEM (n = 3). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$.

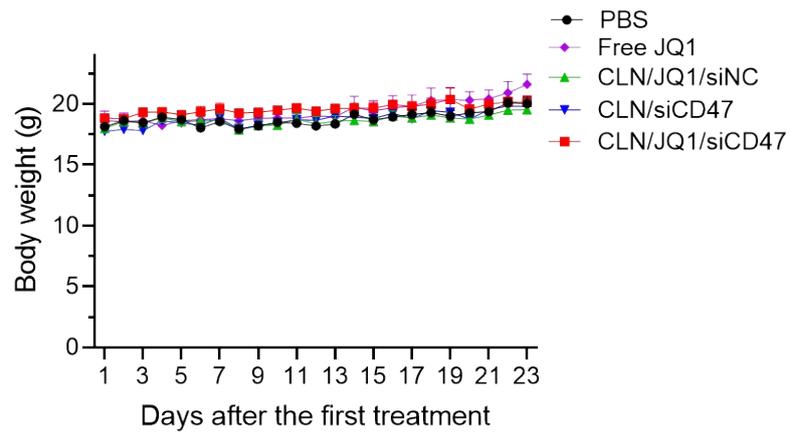


Figure S4. Bodyweight changes in 4T1 tumor-bearing BALB/c mice in the therapeutic experiment described in Figure 4B. (n = 4 per group)

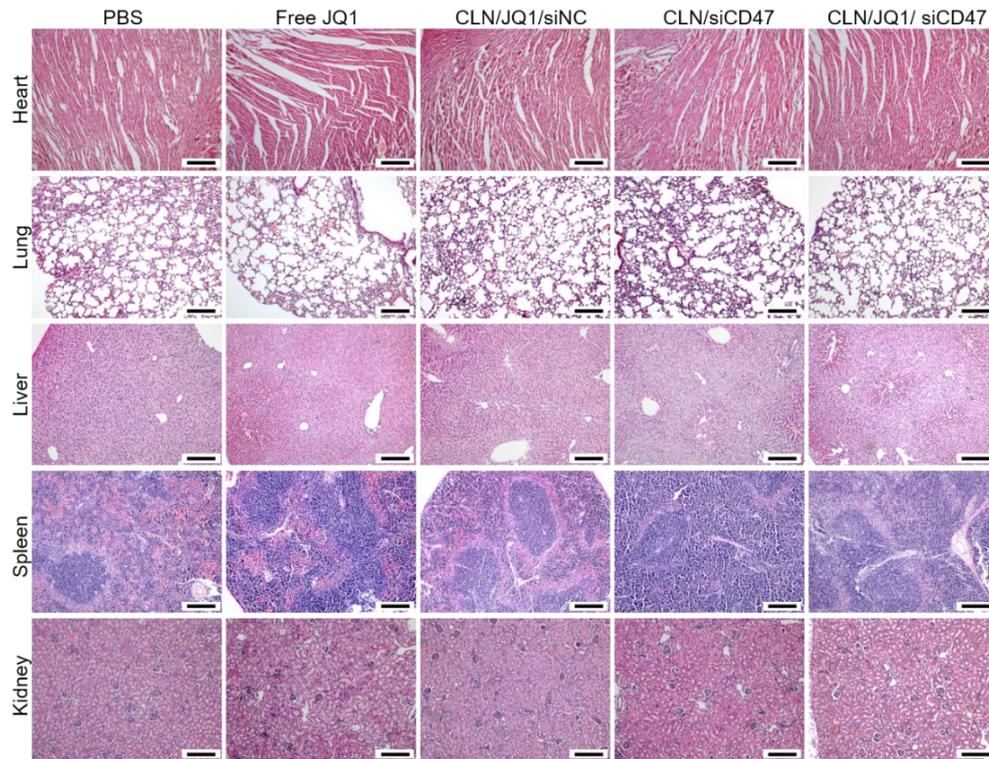


Figure S5. Histological analysis of tissues from 4T1 tumor-bearing mice. Shown are representative H&E-stained sections of heart, lung, liver, spleen and kidney taken from the indicated groups after 23 days of PBS and CLN/ JQ1/ siCD47 treatment. Scale bar is 20 μ m. No detectable difference was seen in the tissues analyzed between groups.

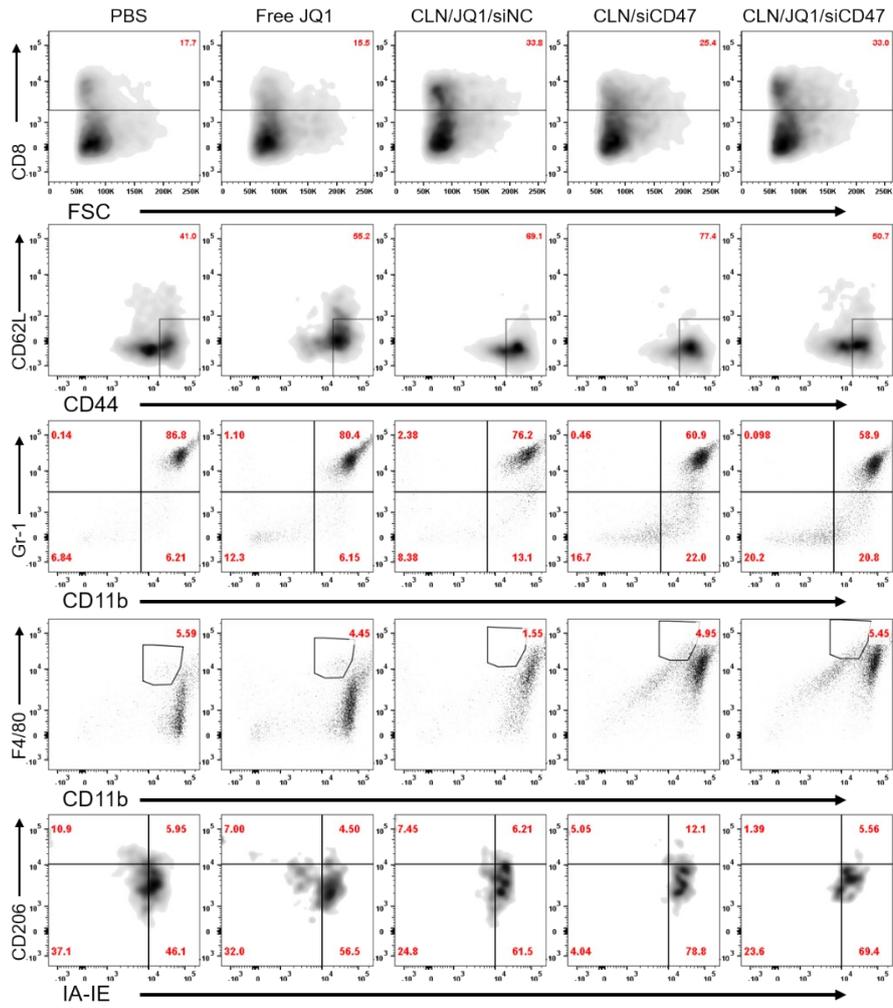


Figure S6. The tumor immune microenvironment of 4T1 tumor-bearing mice after PBS and CLN/JQ1/siCD47 treatment was detected by flow cytometry.