Electronic Supplementary Material (ESI) for Biomaterials Science.

Immunoactivity of a hybrid membrane biosurface on nanoparticles: enhancing interaction with dendritic cells to augment anti-tumor immune responses

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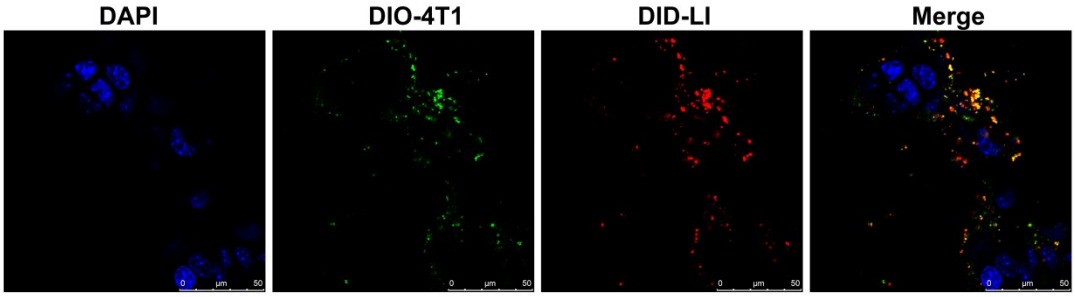

Fig. S1. Confocal images of cancer cells after ingesting HMP in which the LI membrane was labeled with DiD and the 4T1 membrane was labeled with DiO (Scale bar, 50 μm).

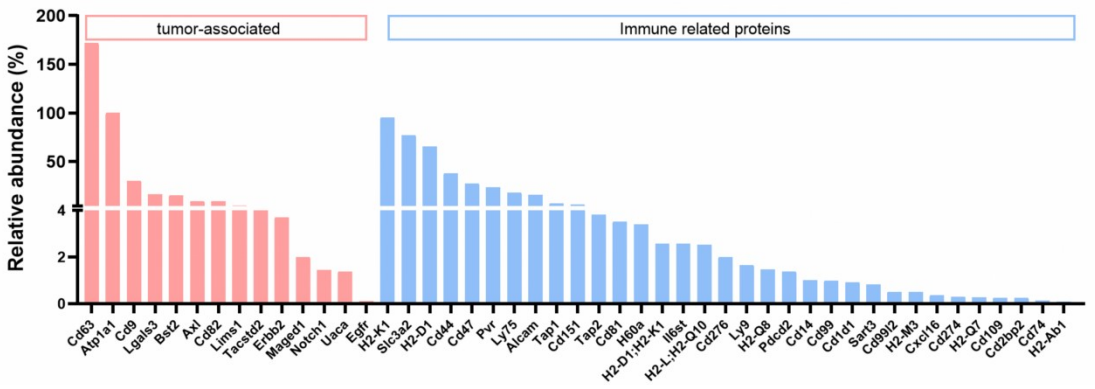

Fig. S2. Proteomic profiling of cell surface-associated antigens on 4T1 cell membranes. The abundances of all antigens were normalized to the Na+/K+ ATPase which is utilized as an internal reference

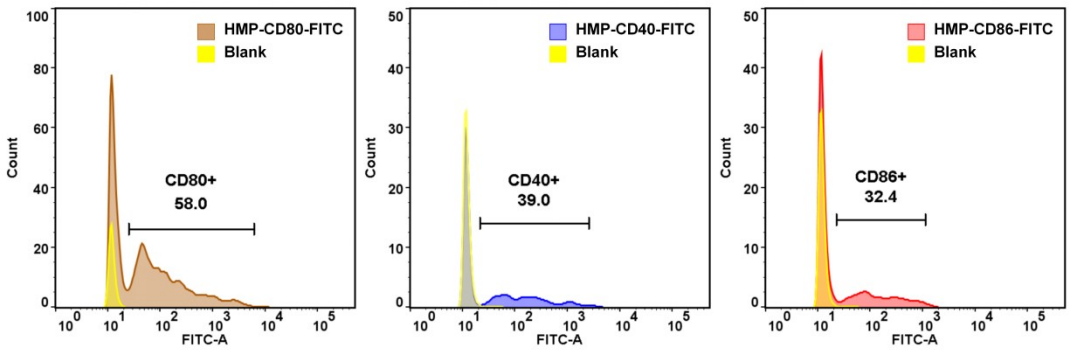

Fig. S3. Quantification of co stimulatory molecules on HMP through nano-flow cytometry. The distribution of fluorescence intensity of HMP nanoparticles incubated with FITC-labeled CD80, CD86, and CD40 antibodies was compared to the nanoparticles without antibody-incubation (Blank group).

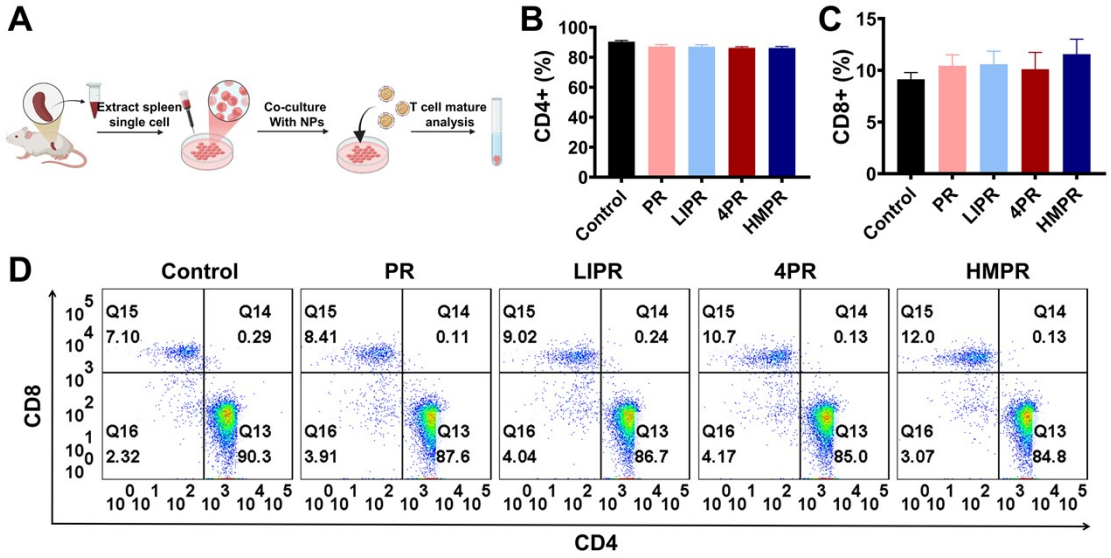

Fig. S4. Activation of T cells in spleen cells *in vitro*. (A) The schematic investigation process of nanoparticles to incubate with splenic single cells for T cell activation. Quantification of (B) CD4+ and (C) CD8+ T cell number in splenic cells after incubation with nanoparticles by (D) flow cytometry analysis. (Mean±SD, n=3).

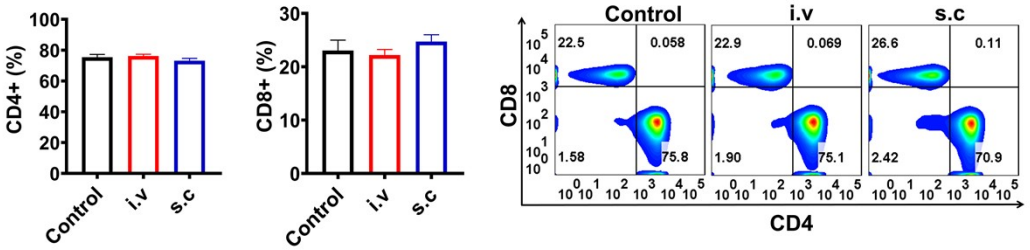

Fig. S5. Quantification of CD4+ and CD8+ T cell number in lymph nodes after intravenous and subcutaneous administration of HMPR through flow cytometry analysis. (Mean±SD, n=4).

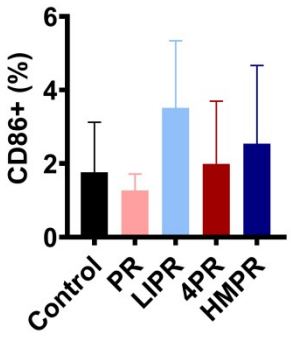

Fig. S6. The analysis of M1 macrophage number in tumor tissues after different treatments.

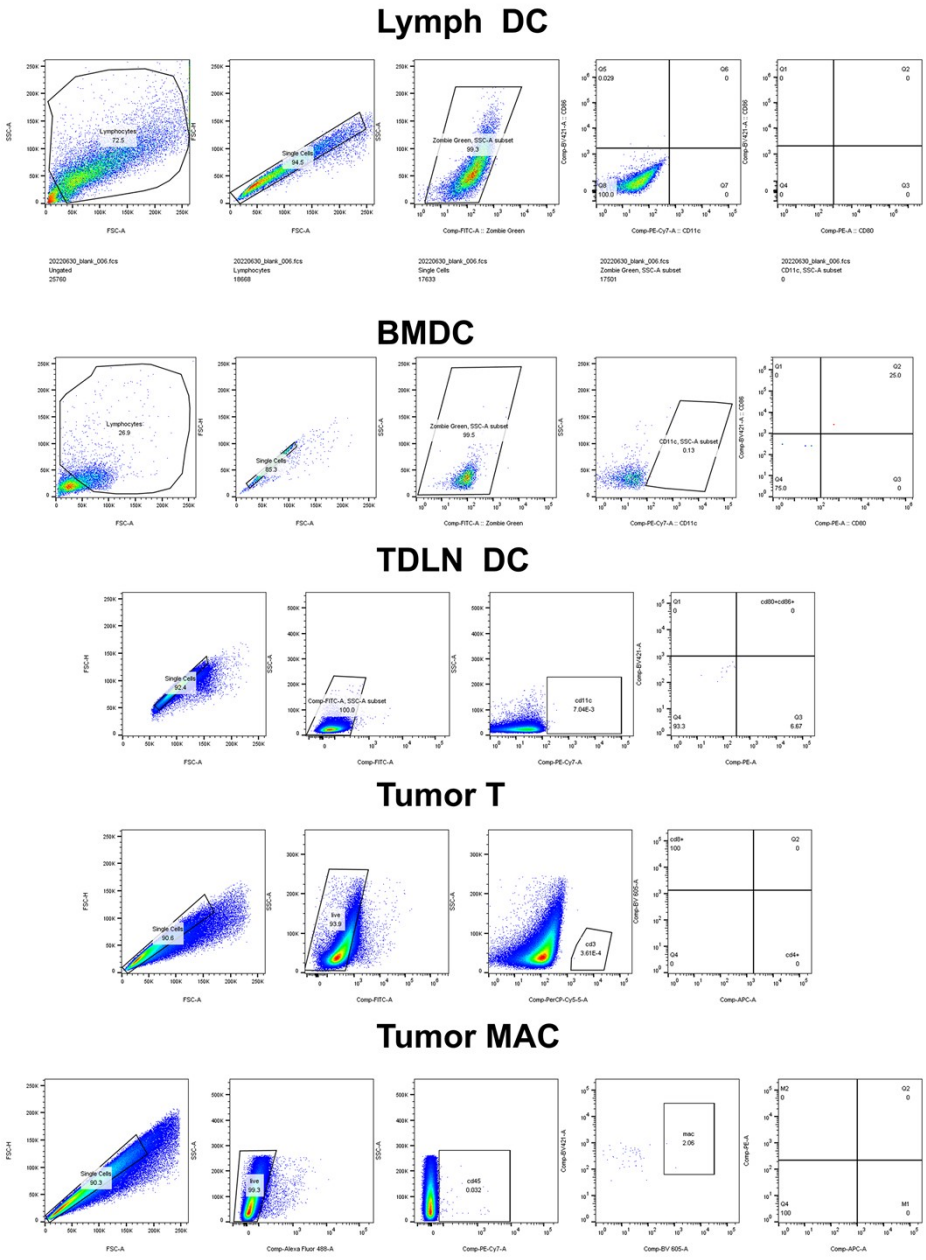

Fig. S7. The examples of gates for flow cytometry analysis.