

Supporting Information

Biomimetic Cytomembrane Nanovaccine Prevents Breast Cancer Development in the Long Term

Long Xiao^{‡a}, Yu Huang^{‡b}, Yuhe Yang^{‡c}, Zhiwei Miao^{‡a}, Jie Zhu^a, Mengdan Zhong^a, Chencheng Feng^a, Wenkai Tang^a, Jinhua Zhou^{*b}, Lihong Wang^{*a}, Xin Zhao^{*c}, Zhirong Wang^{*a}

^aCenter Laboratory, Zhangjiagang Traditional Chinese Medicine Hospital Affiliated to Nanjing University of Chinese Medicine, Zhangjiagang, Jiangsu, 215600, China.

^bDepartment of Obstetrics and Gynecology, The First Affiliated Hospital of Soochow University, Suzhou, Jiangsu 215006, China.

^cDepartment of Biomedical Engineering, The Hong Kong Polytechnic University, Hung Hom, Hong Kong, China.

[‡]These authors contributed equally to this work.

Corresponding e-mail address: jsjzh@126.com (J. Zhou); zjgzy001@njucm.edu.cn (L. Wang); xin.zhao@polyu.edu.hk (X. Zhao); zjgfy_spine_wzr@njucm.edu.cn (Z. Wang);

Supplementary Figures

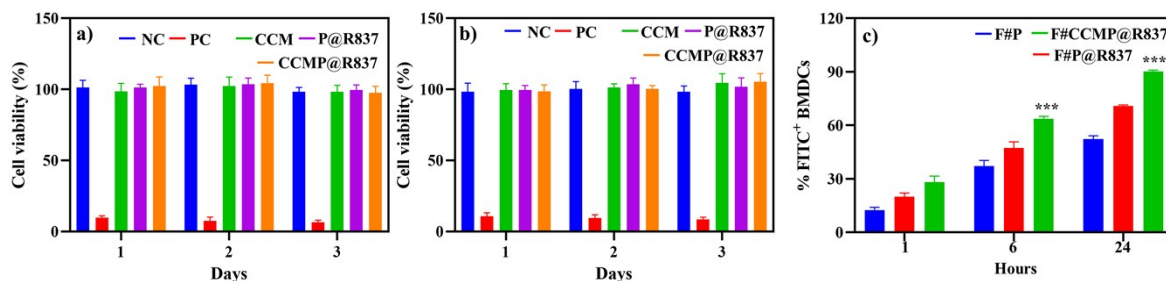


Figure. S-1. Cell viability of a) BMDCs and b) 4T1 cells treated with cell culture medium (negative control, NC), cell culture medium with 1% Triton X-100 (positive control, PC), cell culture medium with 4T1 cancer cell membranes (CCM), cell culture medium with P@R837 (P@R837), and cell culture medium with CCMP@R837 (CCMP@R837). CCMP@R837 and P@R837 groups have the same amount of R837. c) CCMP@R837 uptake by BMDCs. The percentage of FITC positive BMDCs treated with FITC-labelled PLGA nanoparticles (F#P), FITC-labelled P@R837 nanoparticles (F# P@R837), and FITC-labelled CCMP@R837 nanoparticles (F# CCMP@R837) ($n = 3$; $*p < 0.05$, $***p < 0.001$).

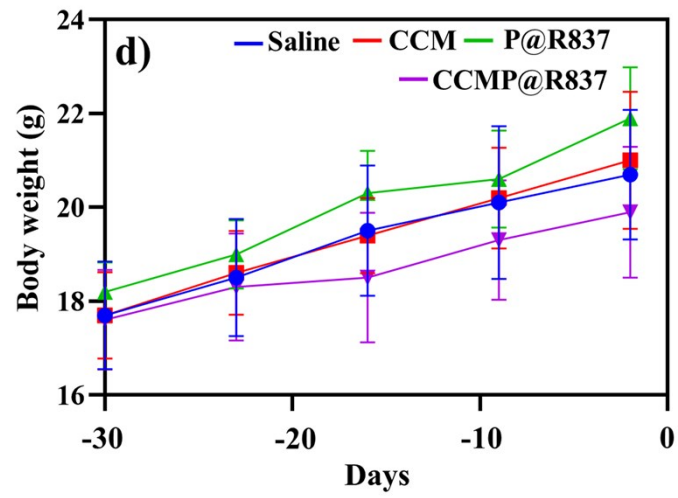


Figure S-2. Body weight of BALB/c immunized with various formulations.

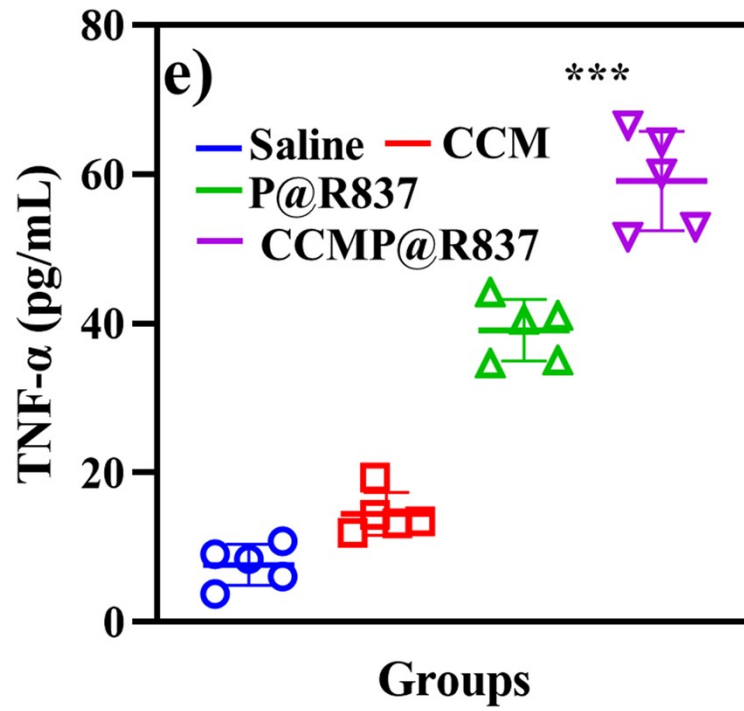


Figure S-3. Concentration of TNF- α in the serum of BALB/c mice immunized with various formulations. Blue color indicates saline, red for cancer cell membranes, green for P@R837 and purple for CCMP@R837 ($n=3$; $*p < 0.05$, $***p < 0.001$).