

**Supporting Information**

**Nanotherapeutic macrophage-based immunotherapy for peritoneal carcinomatosis of lung cancer**

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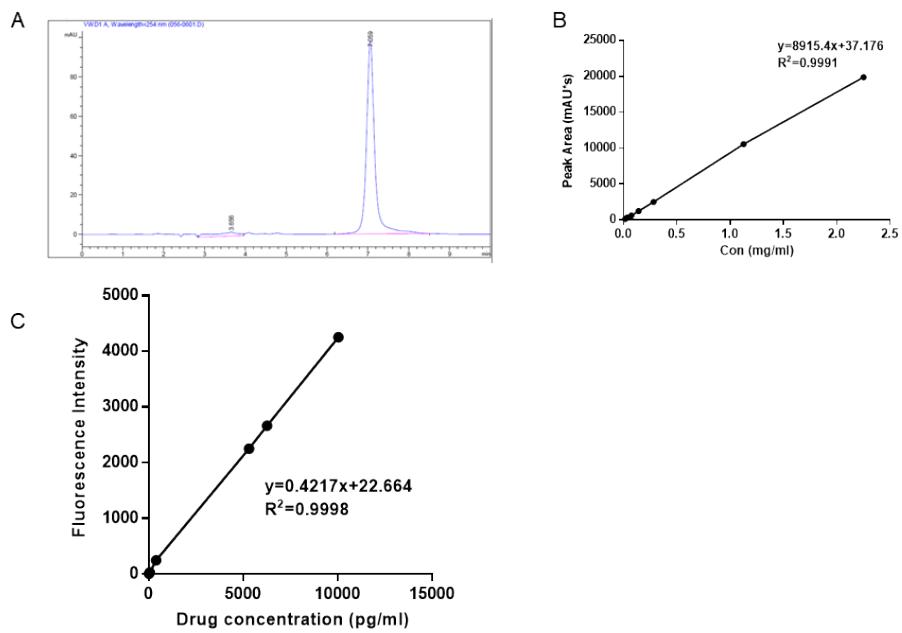
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**Table S1:** Drug encapsulation efficacy and drug-loading capacity of the celastrol NPs.

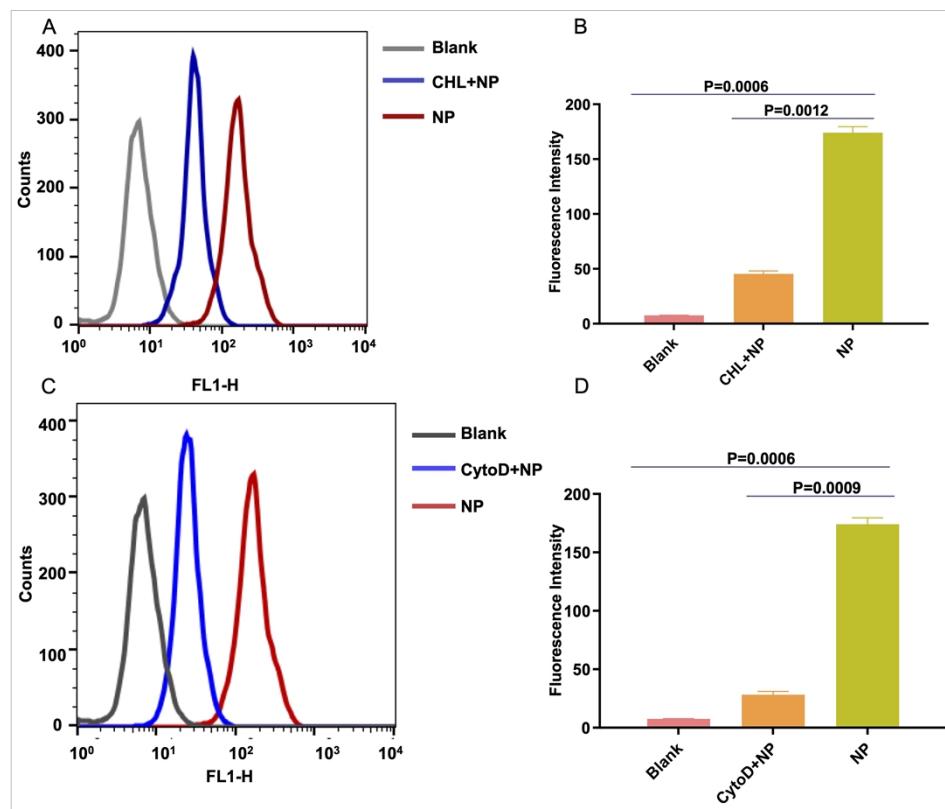
	Encapsulation efficacy (%)	Drug-loading capacity (%)
The NPs	81.7 ± 1.2	6.6 ± 0.3

**Table S2:** Gene primers used for q-PCR

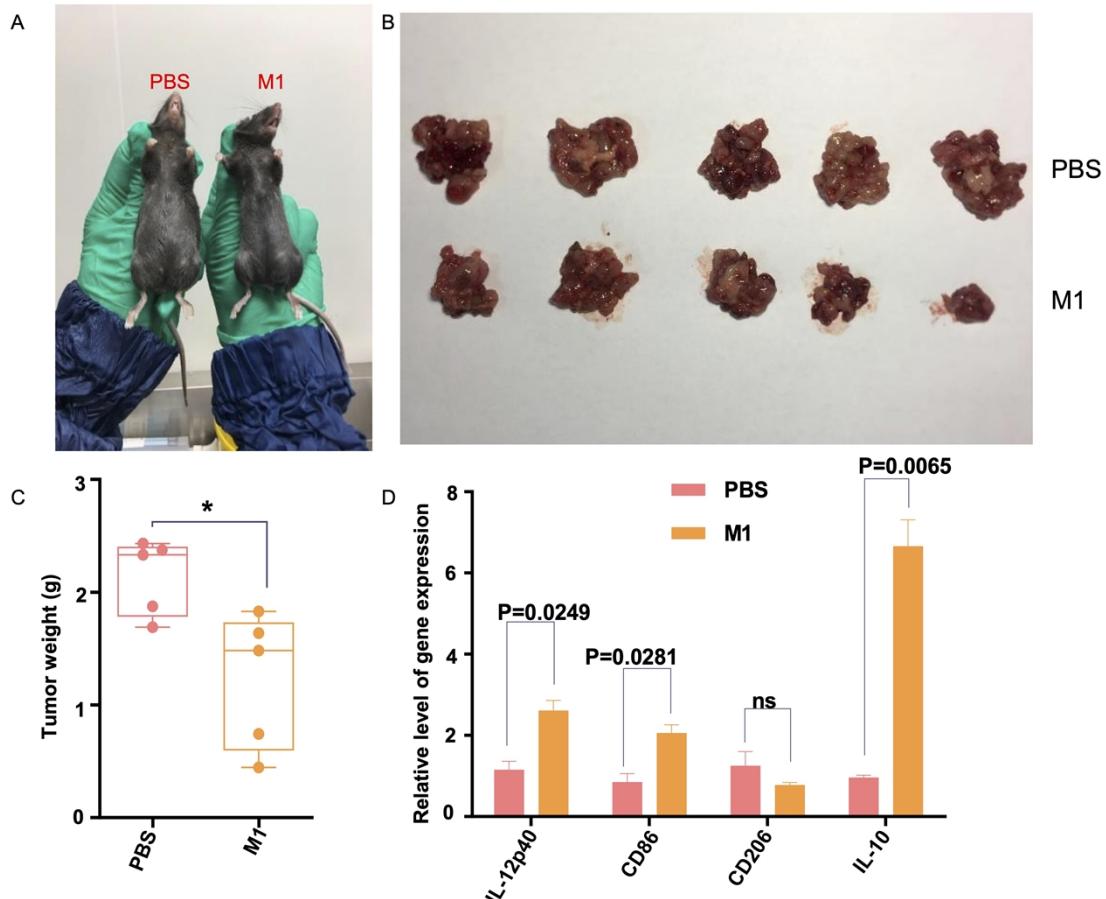
Gene	Forward primer	Reverse primer
Arg1	GAACACGGCAGTGGCTTAAC	TGCTTAGCTCTGTCTGCTTTGC
CD206	TCTTGCCTTCCCAGTCCTCC	TGACACCCAGCGGAATTTC
IL-10	CAGGGATCTTAGCTAACGGAAA	GCTCAGTGAATAAATAGAATGGGAAC
IL-12p40	GCAACGTTGAAAGGAAAGA	AAAGCCAACCAAGCAGAAGA
IL-12p35	ACTAGAGAGACTTCTCCACAACAAGAG	GCACAGGGTCATCATCAAAGAC
CD86	TTGTGTGTGTTCTGGAAACGGAG	AACTTAGAGGCTGTGTTGCTGGG
TNF- $\alpha$	CCTGTAGCCCACGTCGTAGC	AGCAATGACTCCAAAGTAGACC
F4/80	TGACTCACCTTGTCCTCAA	CTTCCCAGAACATCCAGTCTTCC
IL-1 $\beta$	GGACAAGCTGAGGAAGATGC	TCGTTATCCCATGTGTCGA
IFN- $\gamma$	ATGAACGCTACACACTGCATC	CCATCCTTGCAGTCCTC
Gram B	CCACTCTGACCCCTACATGG	GGCCCCAAAGTGACATTATT
Ym1	CATGAGCAAGACTTGCCTGAC	GGTCCAAACTCCATCCTCCA
Fizz1	CCCTGCTGGATGACTGCTA	TGCAAGTATCTCCACTCTGGATCT
Actin	GGTCATCACTATTGGCAACG	ACGGATGTCAACGTCACACT



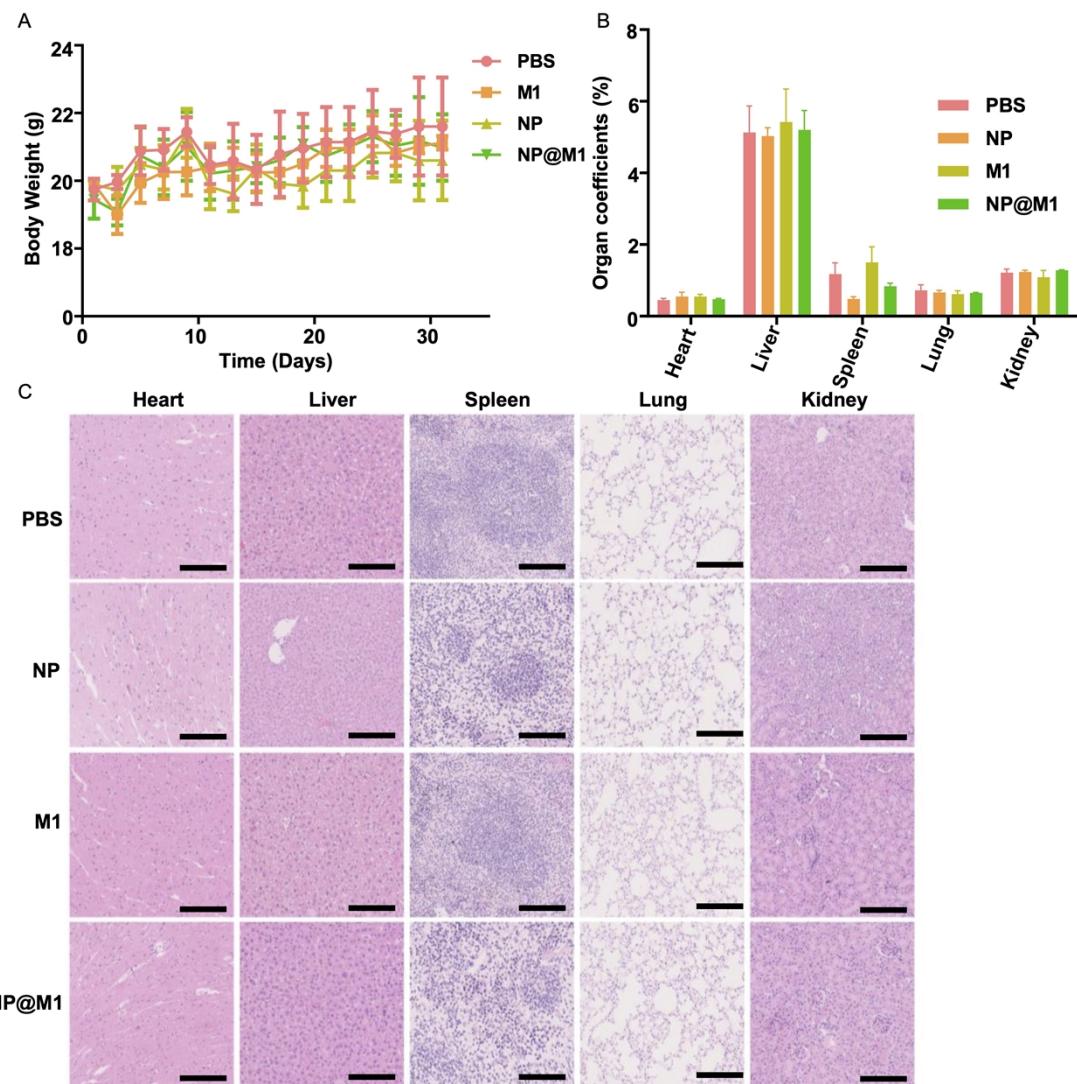
**Figure S1** (A) HPLC chromatogram of celastrol. (B) Standard curve of celastrol. (C) Standard curve of Cy-5.



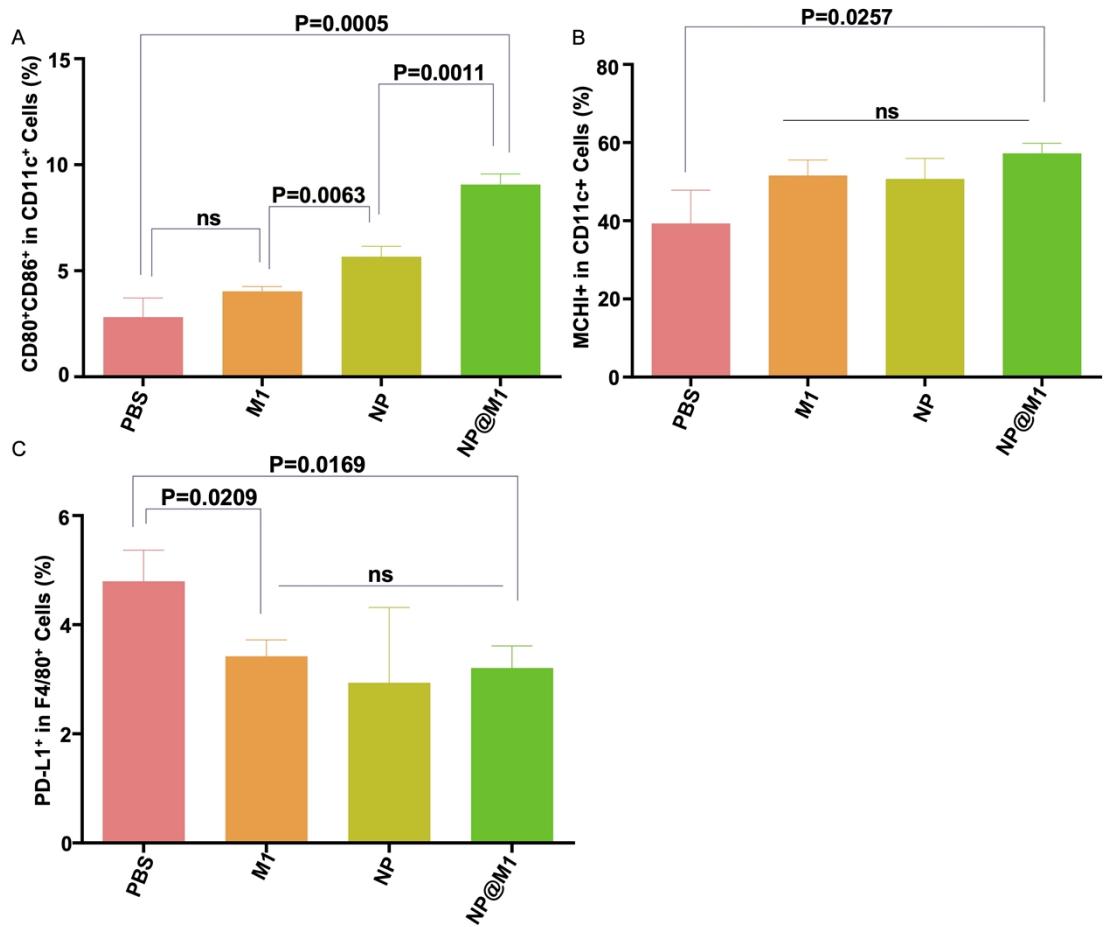
**Figure S2** The uptake of the NPs by M1Φ decreased in the presence of chlorpromazine (A–B) and cytochalasin D (C–D), indicating the uptake pathways related to clathrin-mediated endocytosis and micropinocytosis.



**Figure S3** (A) Abdominal swelling was inhibited after M1 $\Phi$  treatment. (B) The peritoneal tumor size after treatment. (C) Tumor weight analysis after treatment. (D) The expression of the macrophage-related biomarkers in the tumor after treatment.



**Figure S4** (A) Body weight changes. (B) Organ coefficient. (C). Pathological examination of the major organs (scale bar: 100  $\mu\text{m}$ ).



**Figure S5** The percentages of CD11c<sup>+</sup> (A) or MHC-I<sup>+</sup> (B) subsets of DCs in the tumors. The percentage of PD-L1<sup>+</sup> MΦ (C) in tumor tissues.