Supplementary Materials

An Endogenous Vaccine Based on Fluorophores and Multivalent Immunoadjuvants Regulates Tumor Micro-Environment for Synergistic Photothermal and Immunotherapy

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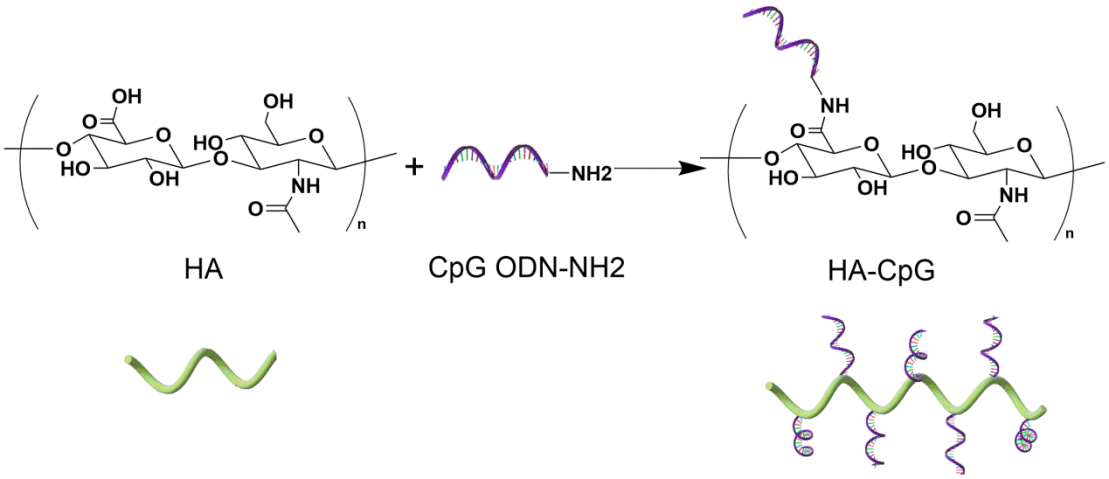

Figure S1. Schematic diagram of the synthesis of HA-CpG.

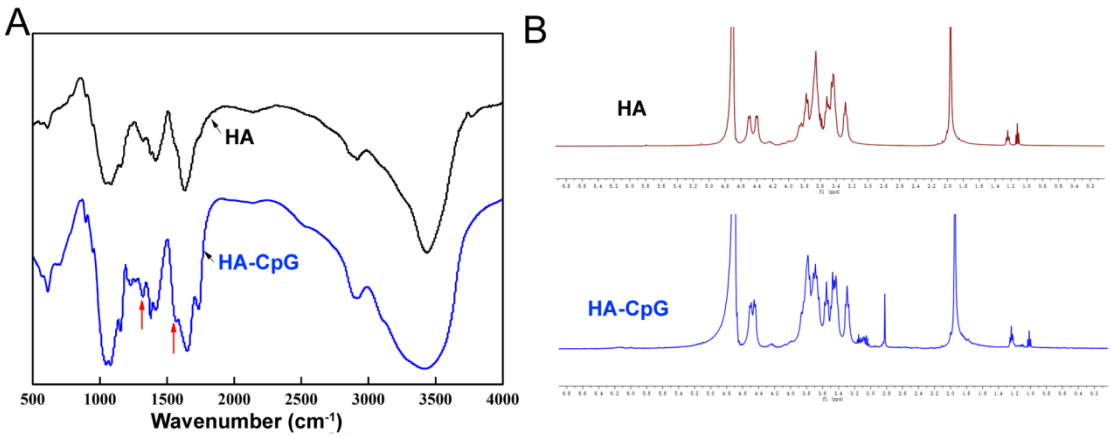

Figure S2. Characterization of HA-CpG. (A) FITR spectra of HA and HA-CpG. (B) ^{1}H-NMR of HA and HA-CpG.

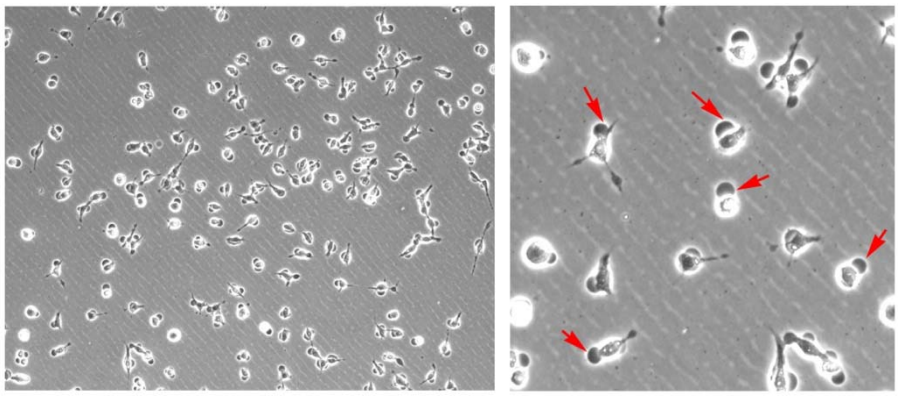

Figure S3. Phase-contrast image of the CT26 cells incubated with IR-7-lipo for 3 h followed by 808 nm laser exposure.

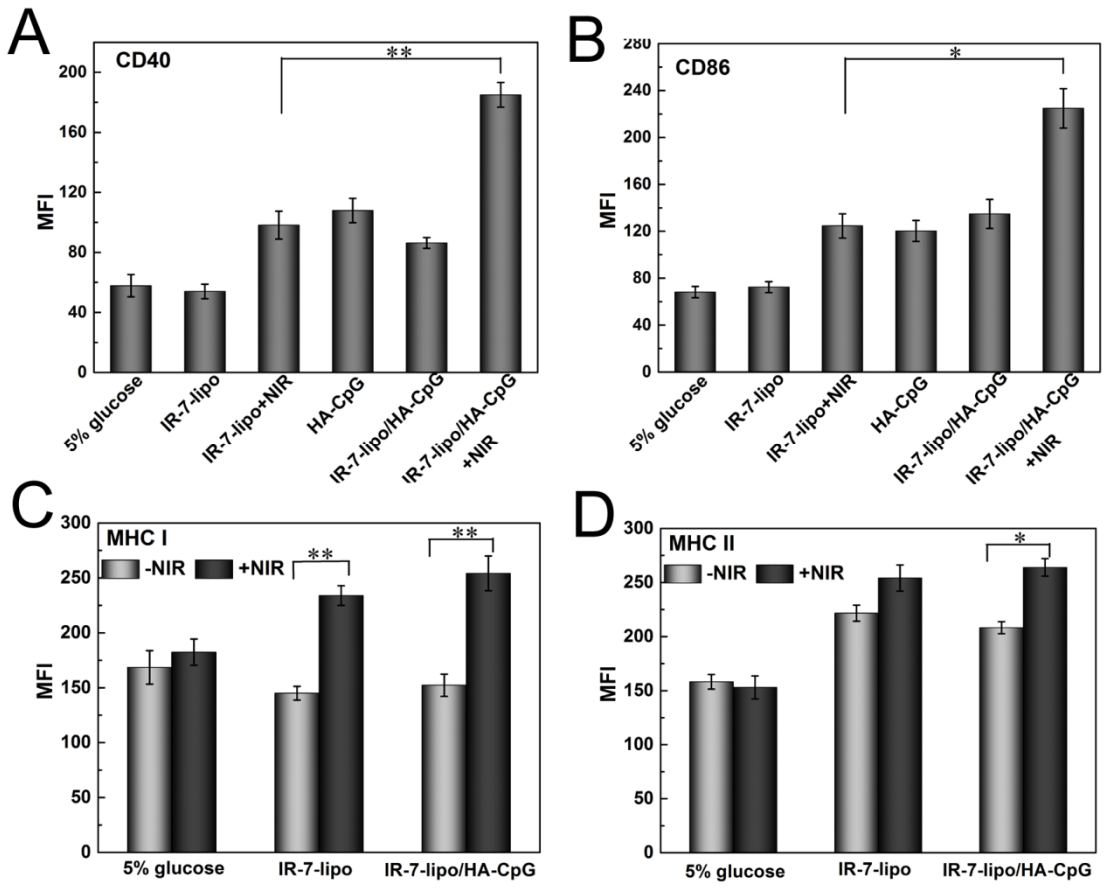

Figure S4. BMDCs maturation and antigen presentation assay. (A, B) MFI (Mean Fluorescence Intensity) quantification of expression levels of CD40 and CD86 on the surface of BMDCs after various treatments. (C, D) MFI quantification of expression levels of MHC I and MHC II on the surface of BMDCs after different treatments. *$p < 0.05$, **$p < 0.01$. The experiments were performed in triplicate.

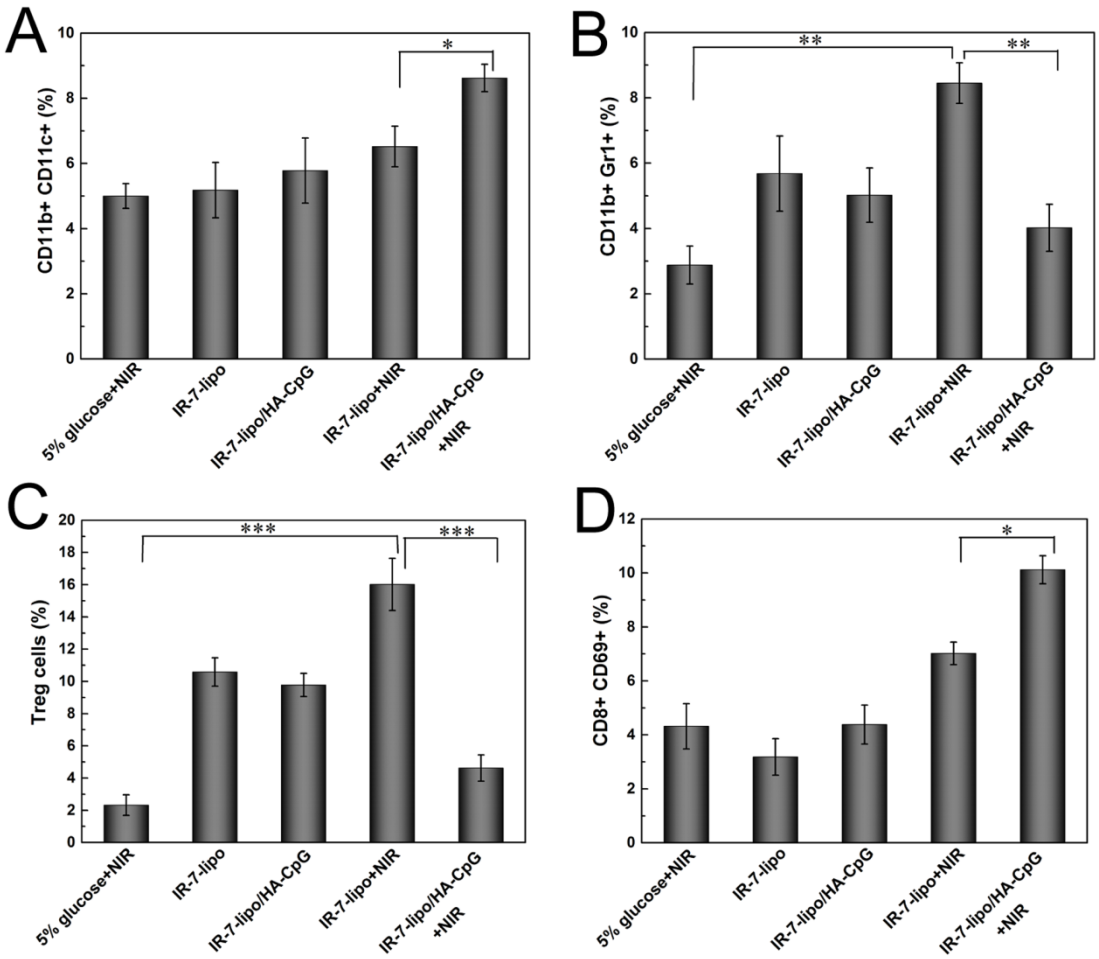

Figure S5. Regulation of tumor micro-environment. The tumor-infiltrating leukocyte profiles in tumors were analyzed by FCM. Quantification in tumors of (A) DCs (CD11b+CD11c+). (B) MDSCs (CD11b+Gr1+). (C) CD4+ Treg cells (CD4+CD25+Foxp3+). (D) Activated CD8+ T cells (CD8+CD69+). *$p < 0.05$, **$p < 0.01$. The experiments were performed in triplicate with three different mice in each group.

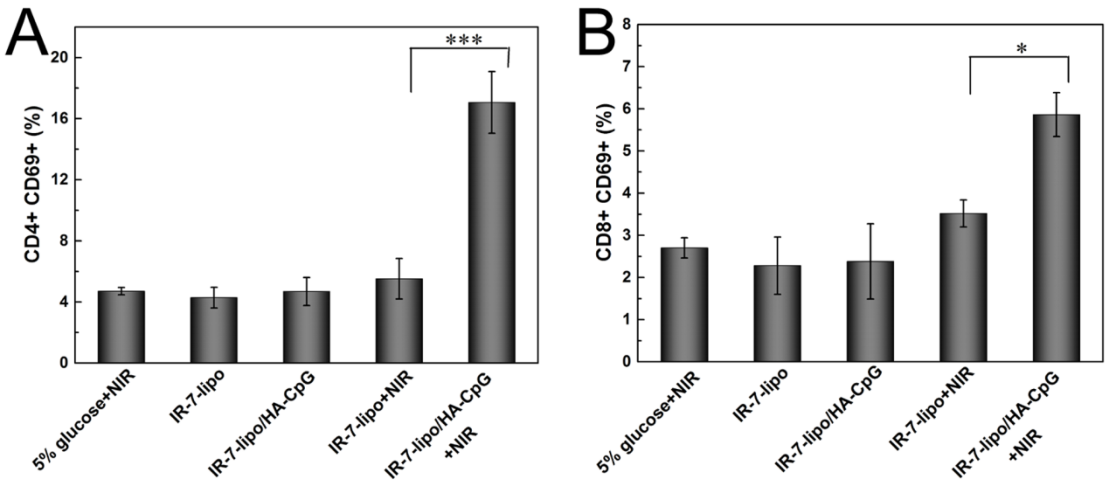

Figure S6. Antitumor systemic immunity. Quantification of (A) activated CD4+ T cells (CD4+CD69+) and (B) activated CD8+ T cells (CD8+CD69+). *$p < 0.05$, **$p < 0.01$. The experiments were performed in triplicate with three different mice in each group.

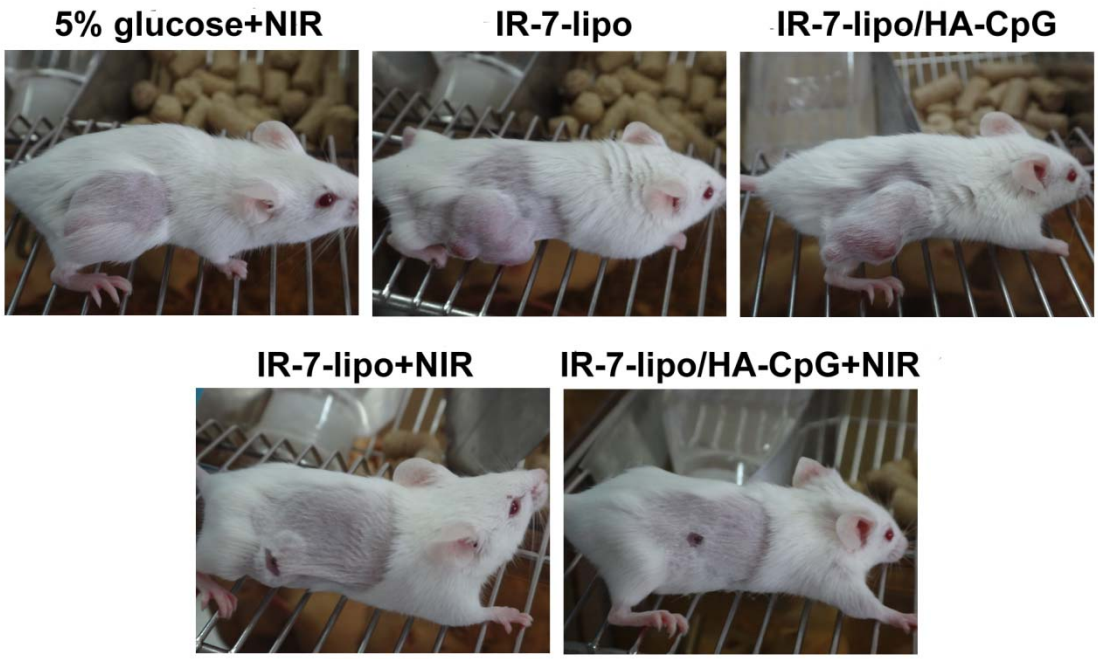

Figure S7. Representative photos of mice after various treatments taken at the end point (Day 15).

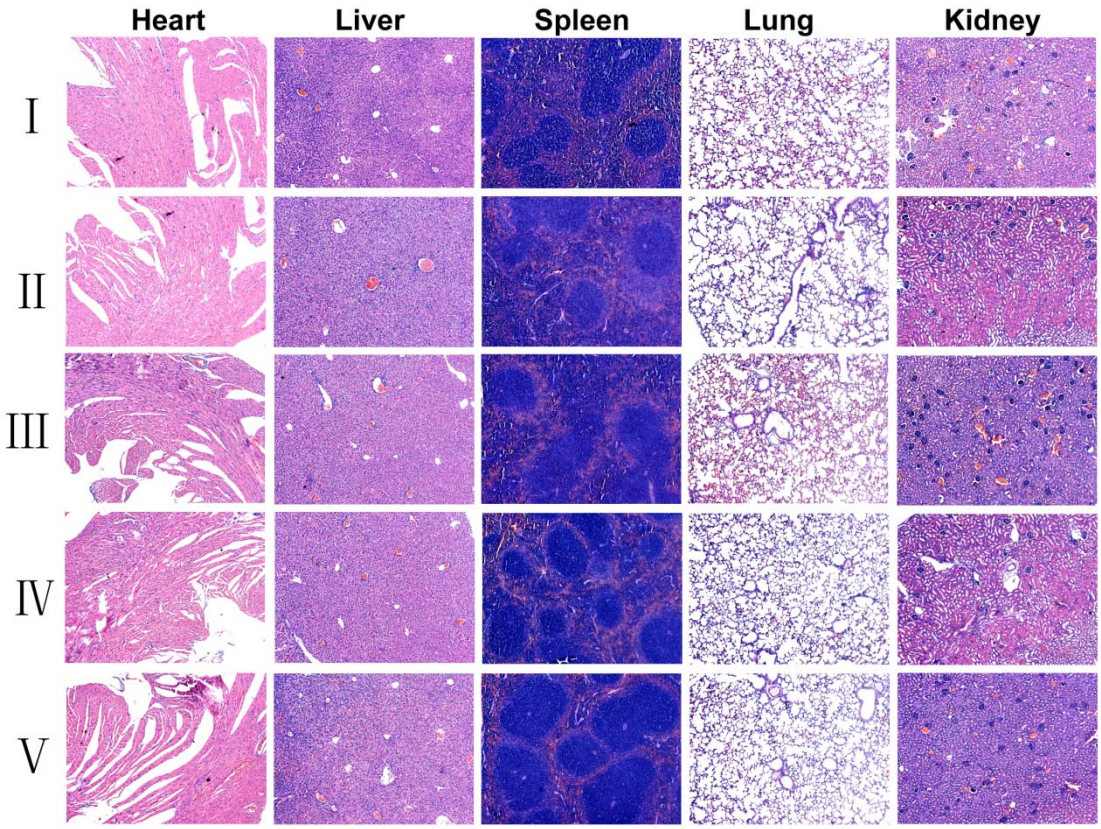

Figure S8. H&E staining of vital organ sections after various treatments in the CT26 tumor-bearing mouse model. Ⅰ, 5% glucose + NIR; Ⅱ, IR-7-lipo; Ⅲ, IR-7-lipo/HA-CpG; Ⅳ, IR-7-lipo + NIR; Ⅴ, IR-7-lipo/HA-CpG + NIR.

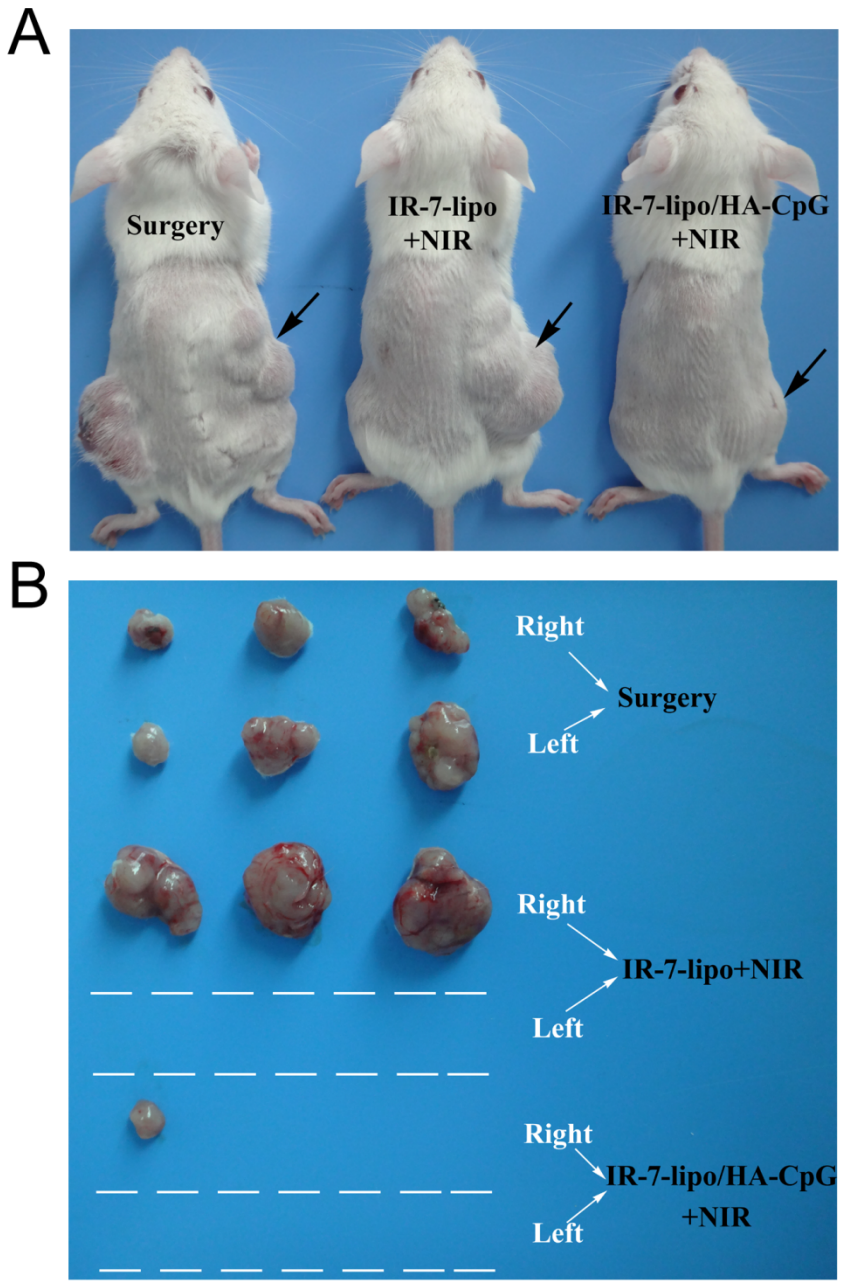

Figure S9. Images of mice (A) and tumors (B) after various treatments. The black arrow indicated the site of the first tumor in the right flank of the mice.