

Supplement materials

Co-delivery Vitamin D3 and Lkb1 siRNA by Cationic Lipid -assisted PEG-PLGA Nanoparticles to Effectively Remodel the Immune System *In Vivo*

Haochuan Liu,^{a, c} Yuning Zhang,^{a, e} He Li,^{a, e} Xue Gao,^a Jialiang Wang,^{a, e} Xiuxiu Cong,^{a, e} Yanbao Xin,^{a, e} Qingsan Zhu,^c Bing Chen,^{d, *} Yong-Guang Yang^{a, b, e}, and Tianmeng Sun^{a, b, e, f, *}

^aKey Laboratory of Organ Regeneration and Transplantation of Ministry of Education, Jilin University, Changchun, Jilin, 130061, China

^bInternational Center of Future Science, Jilin University, Changchun, Jilin, 130015, China

^cDepartment of Orthopaedics, China-Japan Union Hospital of Jilin University, Changchun, Jilin, 130031, China

^dDepartment of Anesthesiology, China-Japan Union Hospital of Jilin University, Changchun, Jilin, 130031, China

^eNational-local Joint Engineering Laboratory of Animal Models for Human Diseases, Changchun, Jilin, 130062, China

^fState Key Laboratory of Supramolecular Structure and Materials, Jilin University, Changchun, Jilin, 130012, China

* Corresponding author

E-mail address: tsun41@jlu.edu.cn (T. Sun) and chenbing2020@jlu.edu.cn (B. Chen)

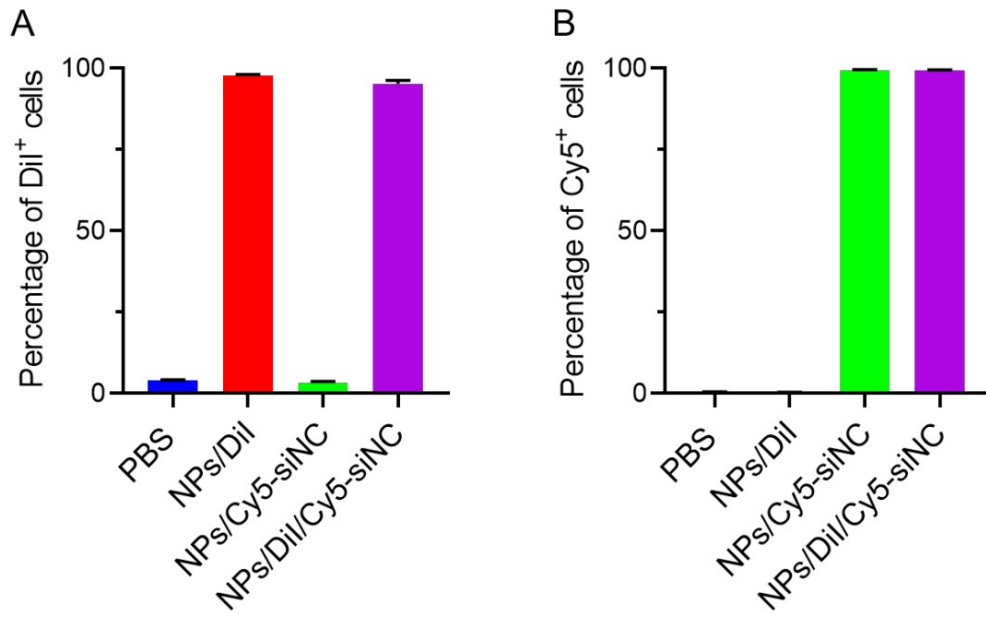


Figure S1. Percentage of DiI⁺ cells and Cy5⁺ cells in DC1.2 cells after stimulation with different nanoparticles was detected by flow cytometry.

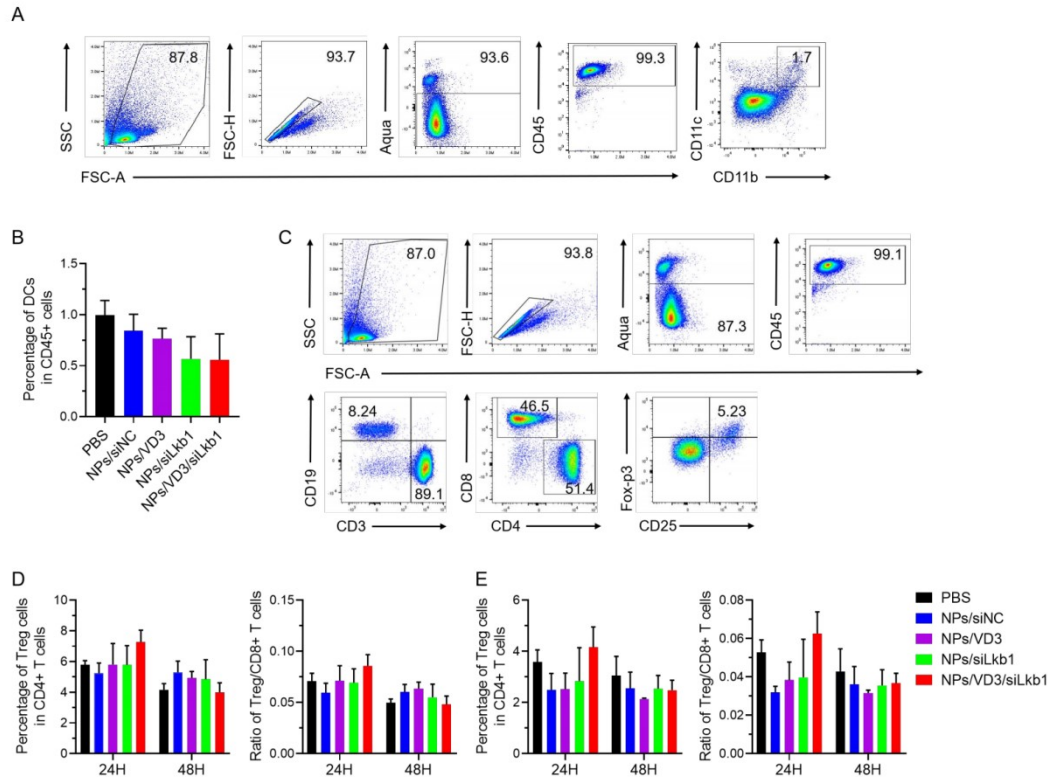


Figure S2. (A) Representative flow cytometry of DCs in lymph nodes of C57BL/6 mice 48 hours after intradermal injection. (B) NPs/VD3/siLkb1 decreased the proportion of DCs in CD45+ cells in the draining lymph nodes of C57BL/6 mice 48 hours after intradermal injection. (C) Representative flow cytometry of Tregs in lymph nodes of C57BL/6 mice 24 hours after intradermal injection. (D, E) The percentage of Tregs in CD4+ T cells and ratio of Treg/CD8+ T cells in lymph nodes (D) and spleen (E) 24 h and 48 h after intradermal injection. Data were expressed as mean \pm S.E.M.

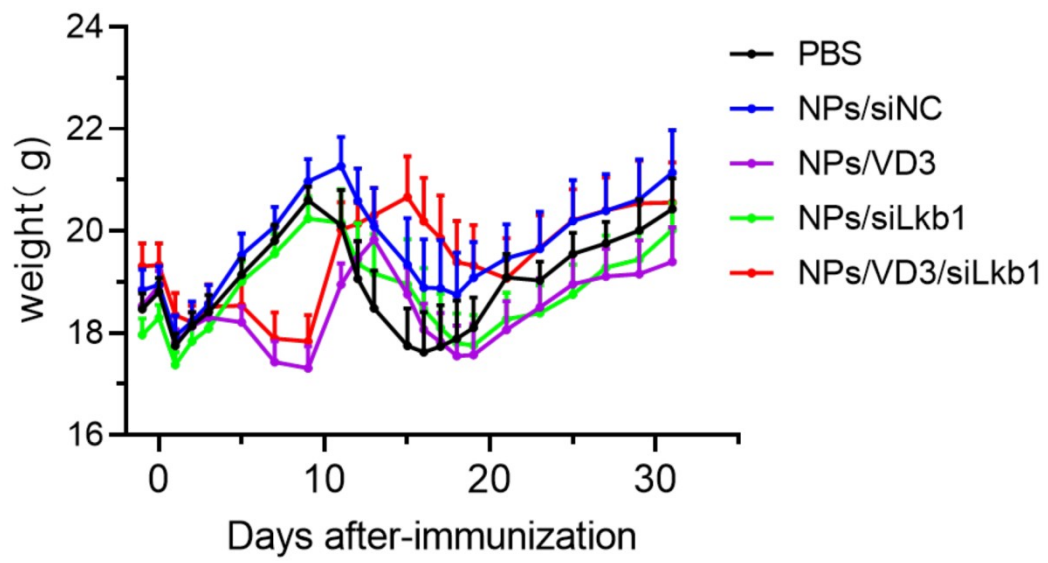


Figure S3. Changes in body weight of EAE mice treated with nanoparticles in different groups