

Supplementary Information

Functionalized graphene oxide serves as a novel vaccine nano-adjuvant for robust stimulation of cellular immunity

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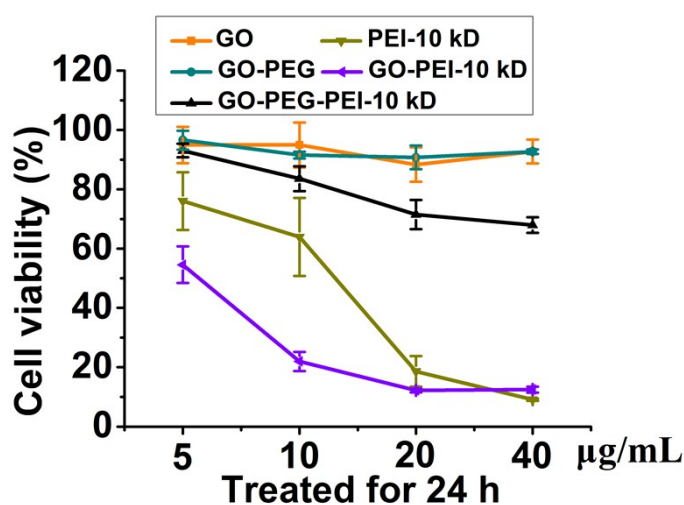


Figure S1. The cytotoxicity of GO and its derivatives to DCs treated for 24 h.

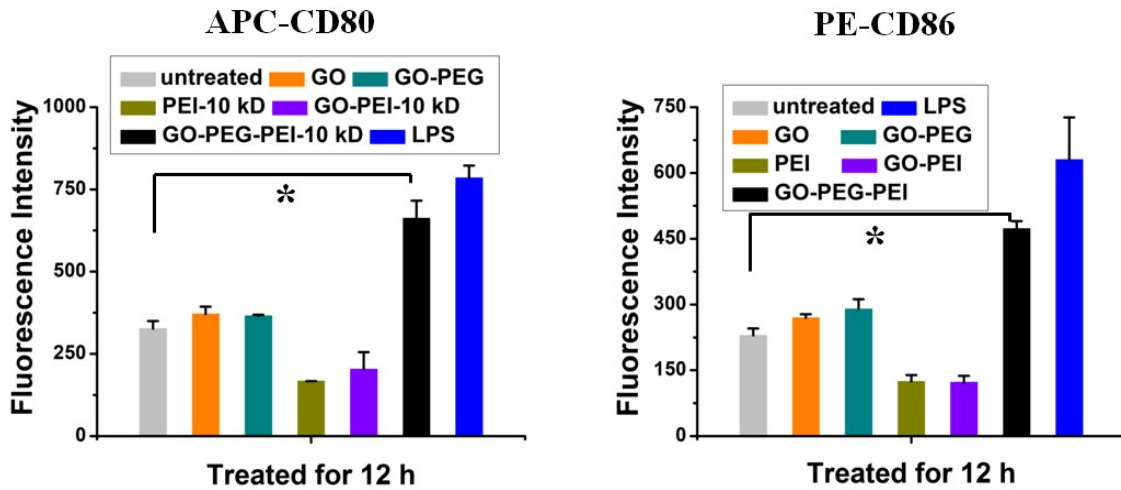


Figure S2. GO-PEG-PEI could effectively up-regulate the expressions of CD80 and CD86 on DCs, achieving levels comparable to those triggered by LPS. It was gated from CD11c⁺ cells and then the fluorescence intensity was analyzed using FCS Express software.

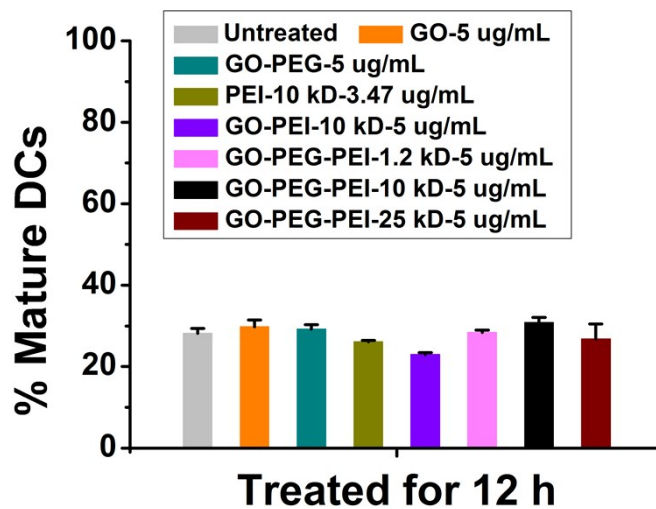


Figure S3. GO and its derivatives showed no activation on DCs maturation at low concentration.

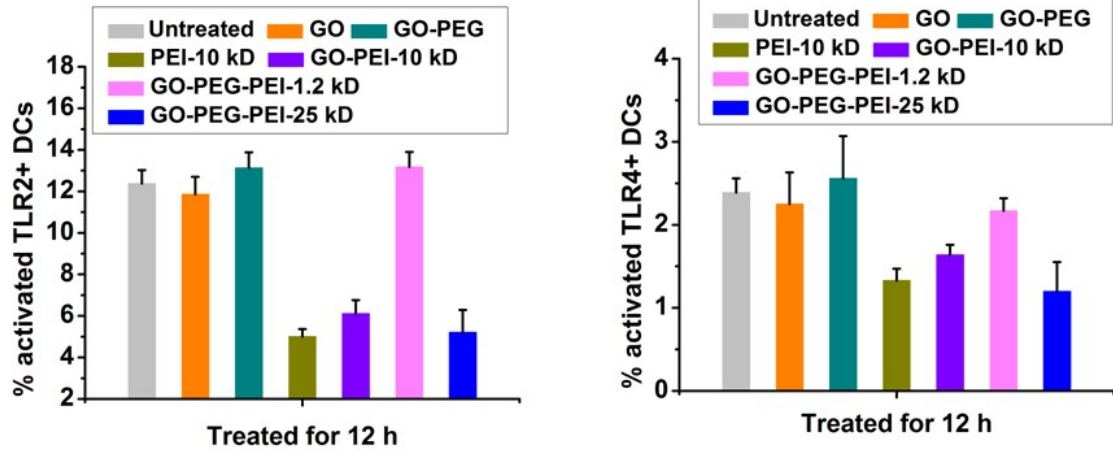


Figure S4. The effects of GO and its derivatives on TLR2 and TLR4 signaling pathways.

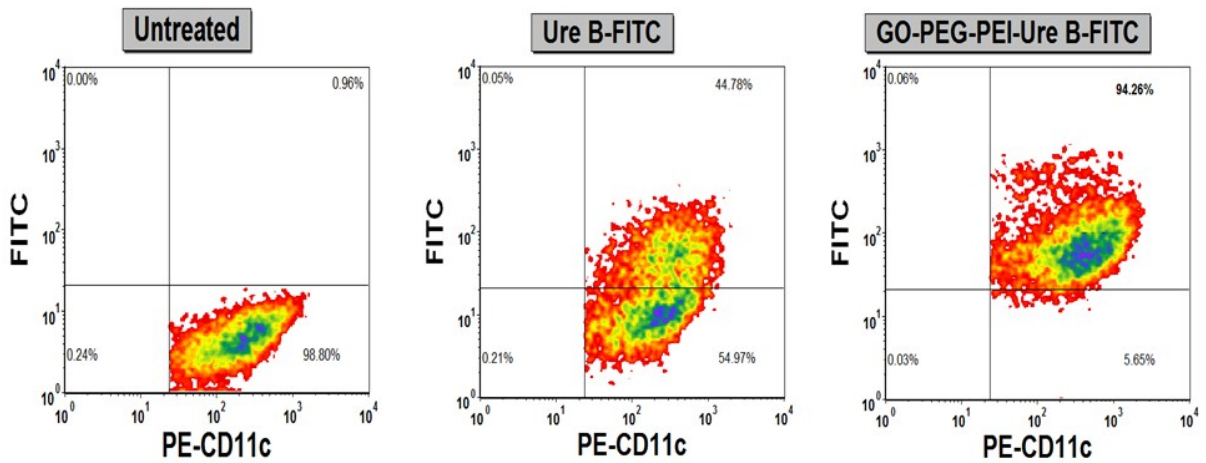


Figure S5. More DCs engulfed Ure B when treated with GO-PEG-PEI-Ure B than free Ure B.

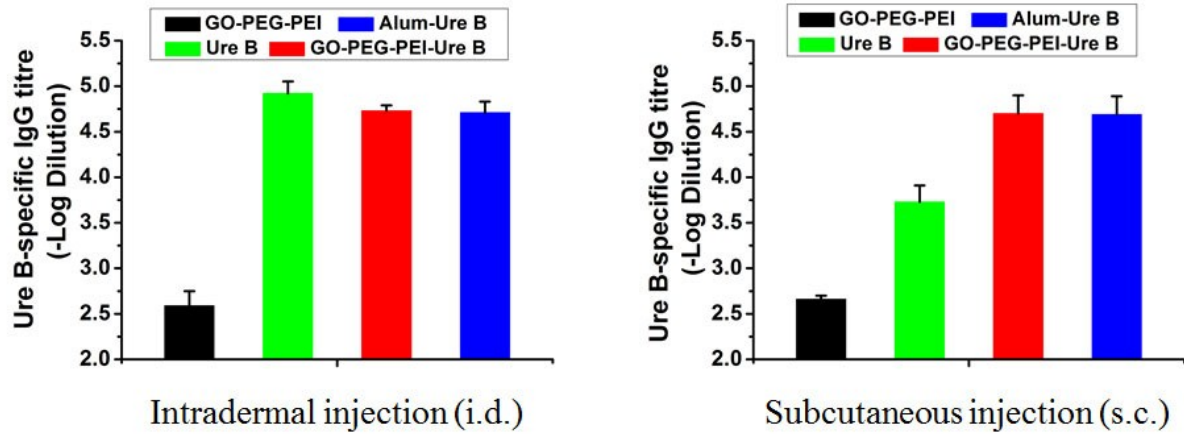


Figure S6. The effect of immunization routes on the humoral response induced by GO-PEG-PEI-Ure B.