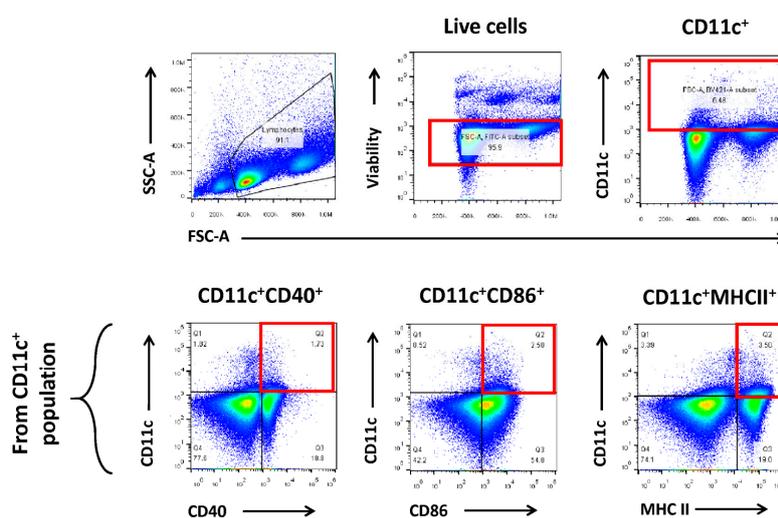


## Supplementary Materials

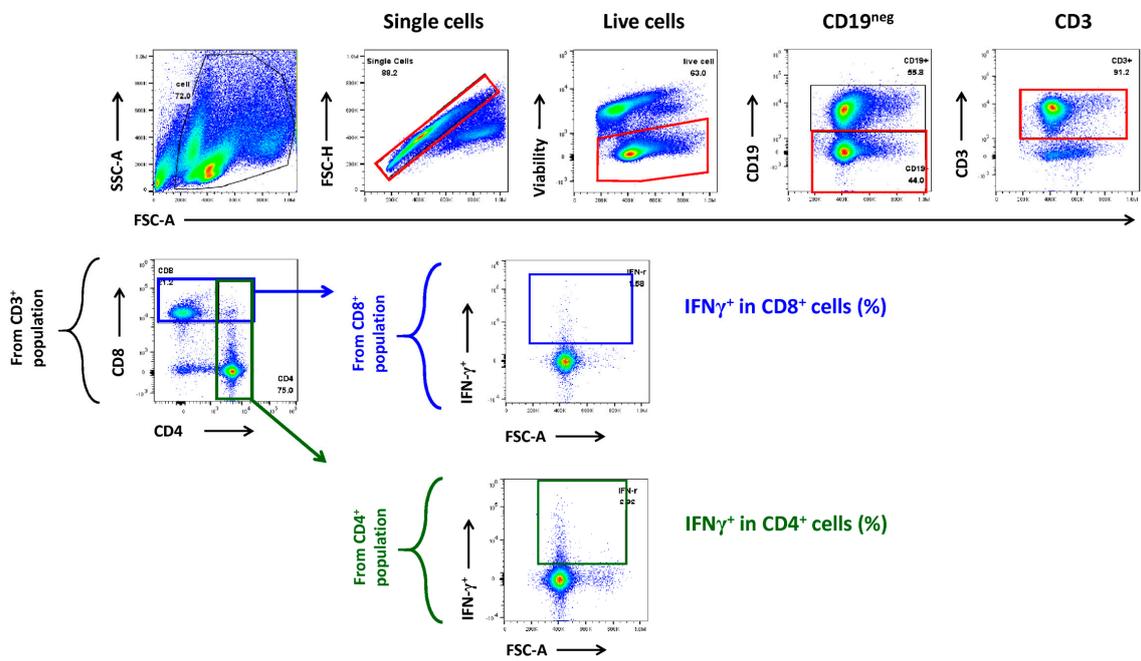
for

# Formulation of SARS-CoV-2 Spike Protein with CpG Oligode-oxynucleotides and Squalene Nanoparticles Modulates Immunological Aspects Following Intranasal Delivery

Hui-Min Ho, Chiung-Yi Huang, Chung-Hsiang Yang, Shih-Jen Liu, Hsin-Wei Chen, Guann-Yi Yu, Jen-Kun Chen, Tsung-Hsien Chuang and Ming-Hsi Huang \*



**Figure S1.** Gating strategy of the FACS experiment on surface expression of APCs at superficial cervical draining lymph nodes (LNs) following intranasal vaccination with PELC:CpG-formulated S protein. Dead cells were excluded from analysis by staining with Live/Dead™ cell viability assay kit. The cells were further gated for the levels of CD11c<sup>+</sup>, CD11c<sup>+</sup>CD40<sup>+</sup>, CD11c<sup>+</sup>CD86<sup>+</sup>, or CD11c<sup>+</sup>MHCII<sup>+</sup> cells.



**Figure S2.** Gating strategy of the FACS experiment on IFN- $\gamma$ -secreting cells in antigen-specific CD4<sup>+</sup>/CD8<sup>+</sup> T cells following intranasal vaccination with PELC:CpG-formulated S protein. Splenic CD19<sup>neg</sup>CD3<sup>+</sup> cells were further gated for the levels of IFN- $\gamma$  expression in CD4<sup>+</sup> or CD8<sup>+</sup> cells.