Systems Serology-Based Comparison of Humoral Immune Responses Induced by Liposome or Aluminum Hydroxide Adjuvanted SARS-CoV-2 Spike Protein

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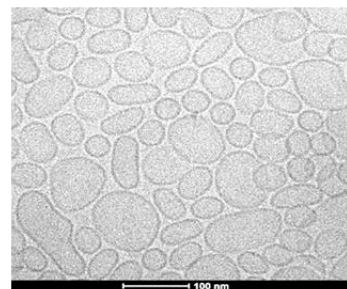[3]Penn Institute for RNA Innovation, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

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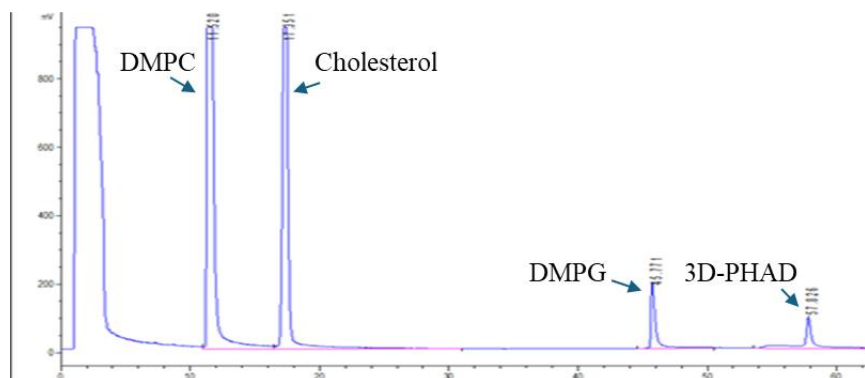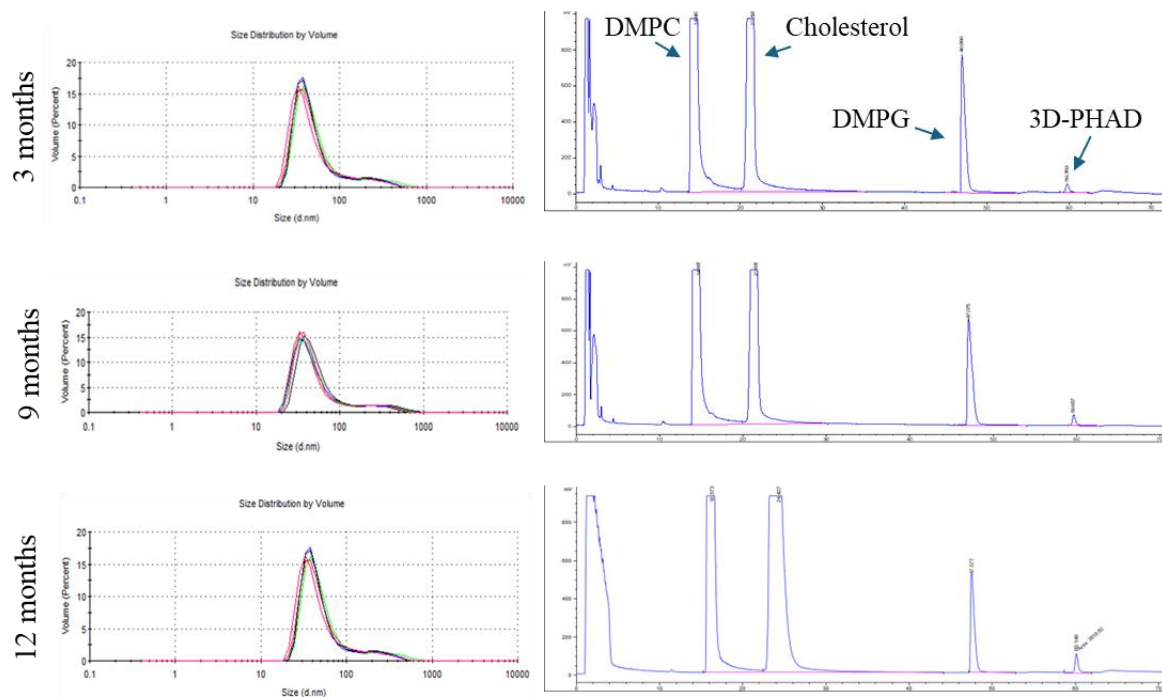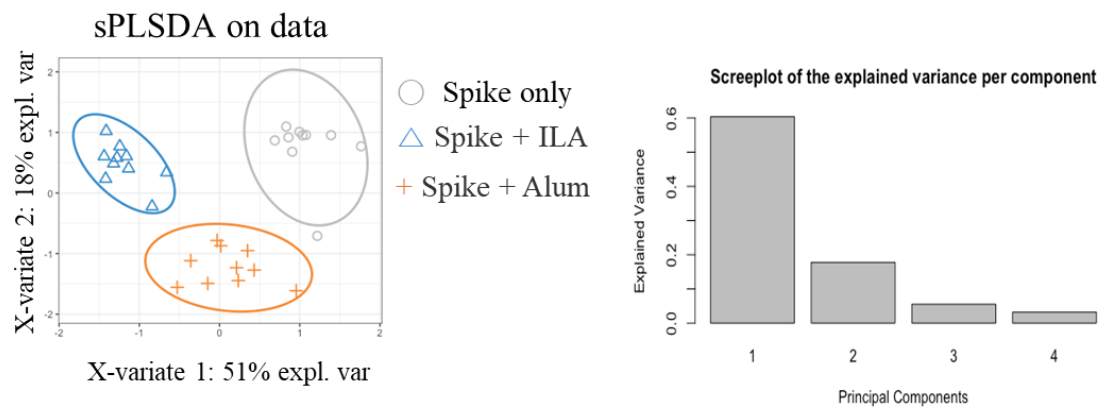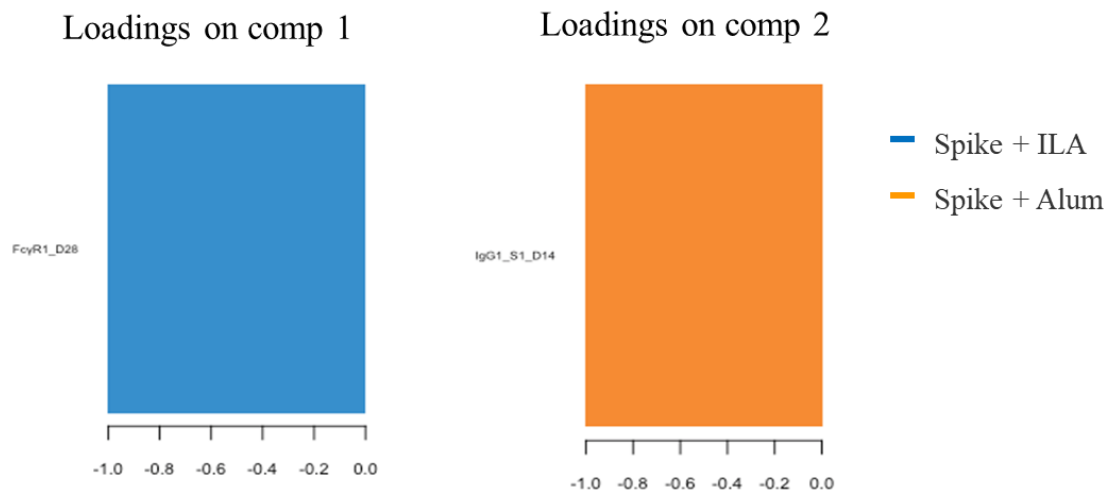
A

B

C

D

3 months

9 months

12 months
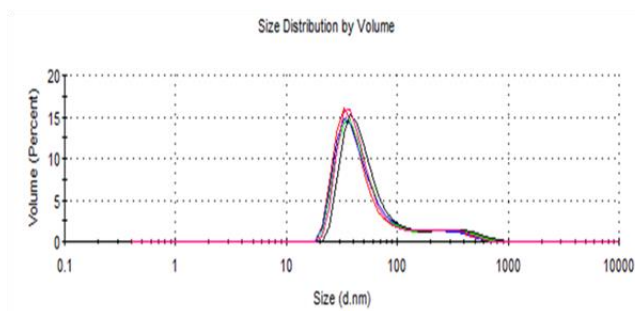
Supplementary Figure 1. Characterization and stability of ILA

(A) Particle size of ILA measured using a Zetasizer. Y-axis indicates volume percent of scattered light; X-axis shows particle diameter in nanometers. Red, green, and black lines represent independent DLS spectral readings. (B) Cryo-TEM images showing the morphology of ILA in PBS buffer. The bar scale represents 100 nm. (C) Quantitative analysis of lipid components using reverse-phase HPLC with ELSD detection. Y-axis shows detector response in mV; X-axis indicates retention time in minutes. (D) Stability assessment of ILA after storage at 4°C for 12 months.

A

sPLSDA on data

X-variate 2: 18% expl. var

○ Spike only
△ Spike + ILA
+ Spike + Alum

X-variate 1: 51% expl. var

Screeplot of the explained variance per component

Explained Variance

Principal Components

B

Loadings on comp 1

FcyR1_D28

Loadings on comp 2

IgG1_S1_D14

— Spike + ILA
— Spike + Alum

Supplementary Figure 2. sPLSDA of humoral immune responses

(A) The sPLS-DA model was applied with all features. (B) The loading factors of the first component were generated based on the sPLS-DA model. The length and color of the bar represent the contribution level and the group with the highest loading values, respectively.