Supplementary Material
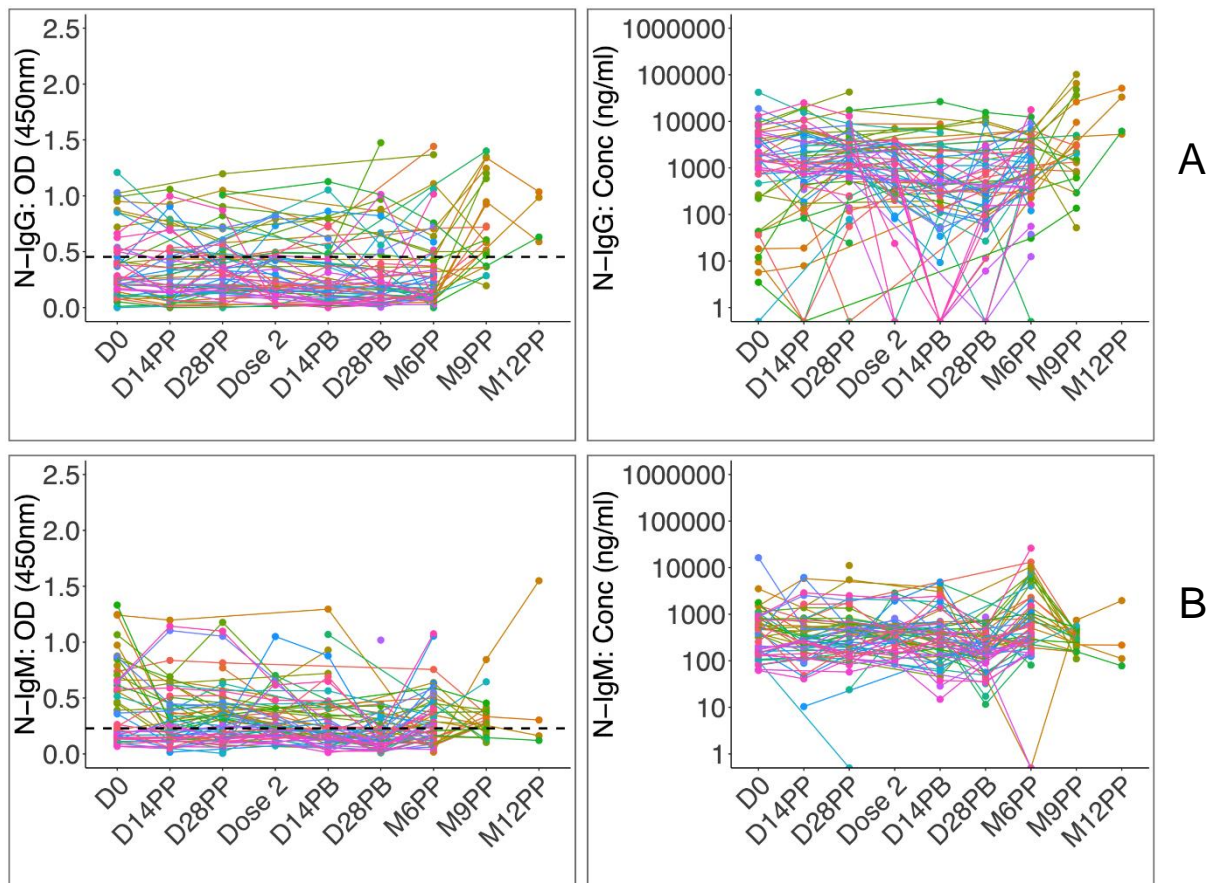
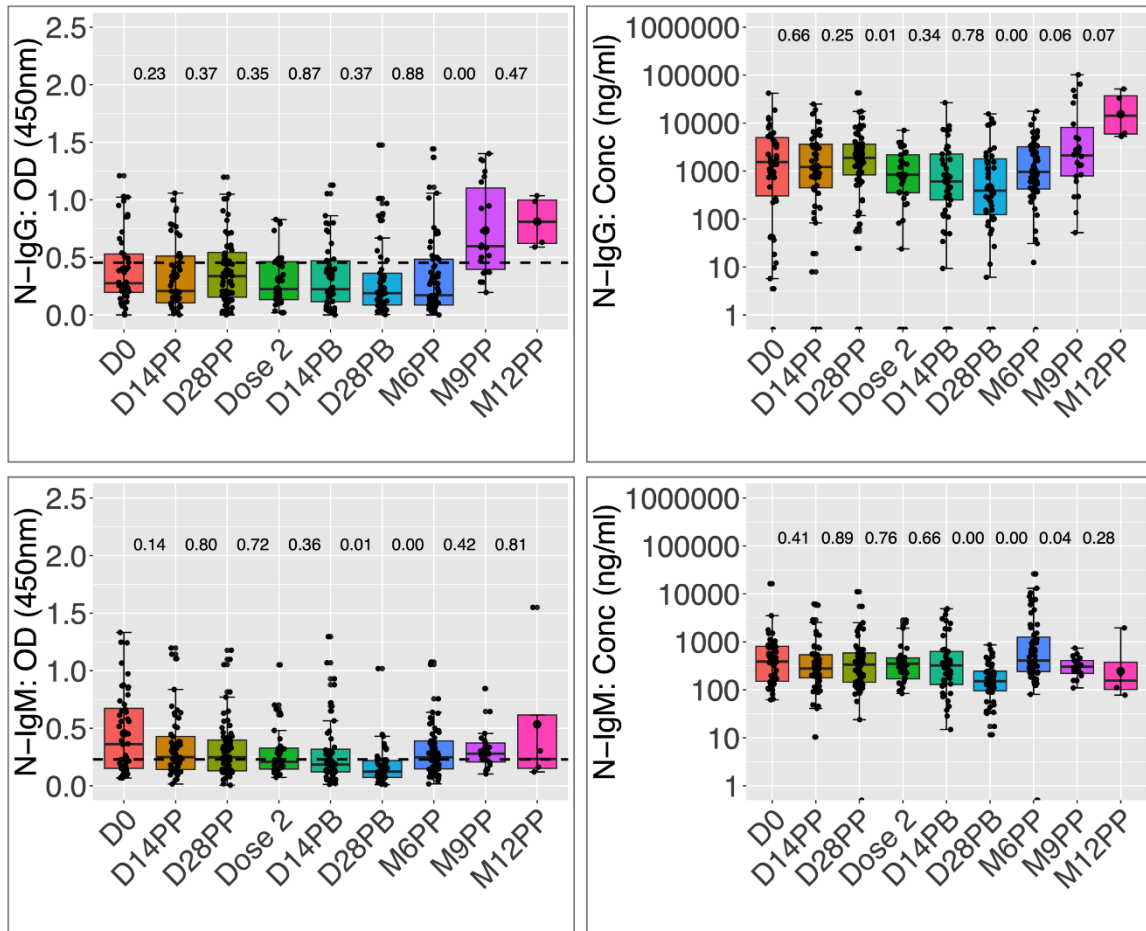**Supplementary Figures**

Supplementary Figure 1: Individual profile plots of nucleoprotein-directed IgG and IgM antibody optical densities and concentrations after vaccination
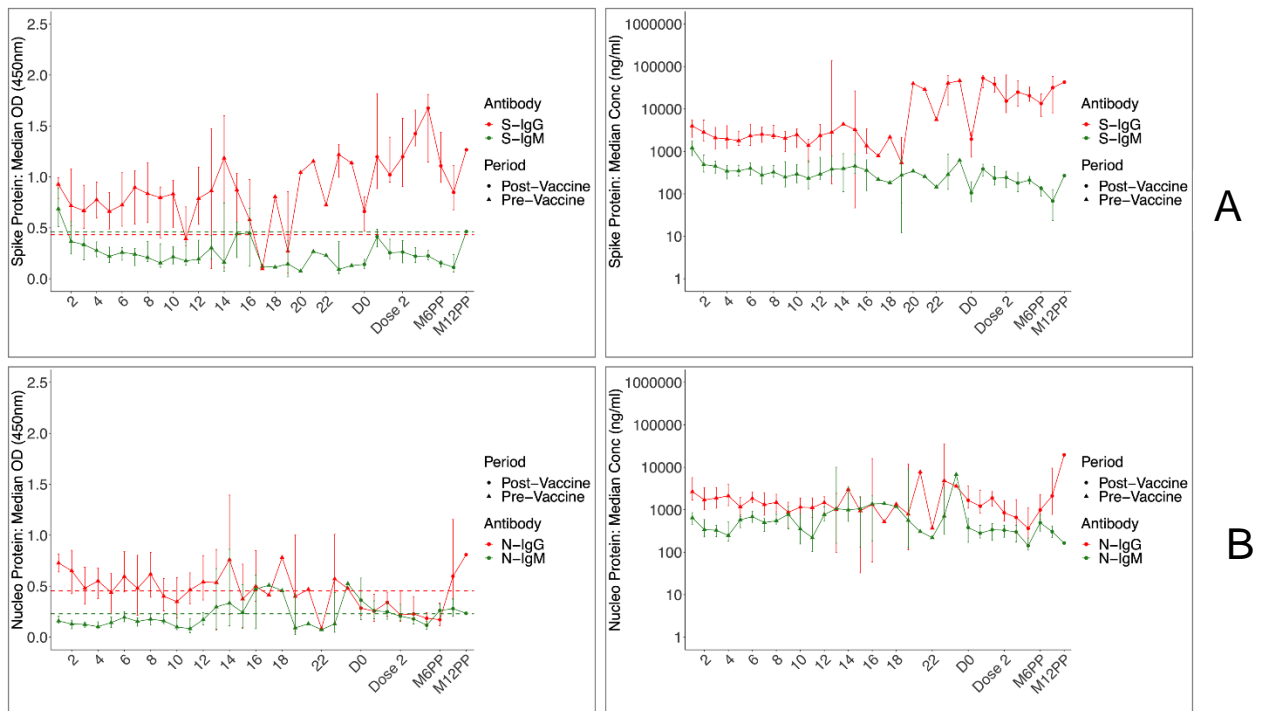

Supplementary Figure 1 shows the individual profile plots of nucleoprotein-directed IgG and IgM antibody OD values (450nm) and concentrations (ng/ml) over 12 months since the initial vaccination of individuals that were previously infected with mild or asymptomatic COVID-19. The dashed lines represent the cut off points for antibody OD value seropositivity.

Supplementary Figure 2: Box plots comparing vaccine-induced nucleoprotein-directed IgG and IgM antibody levels over time.
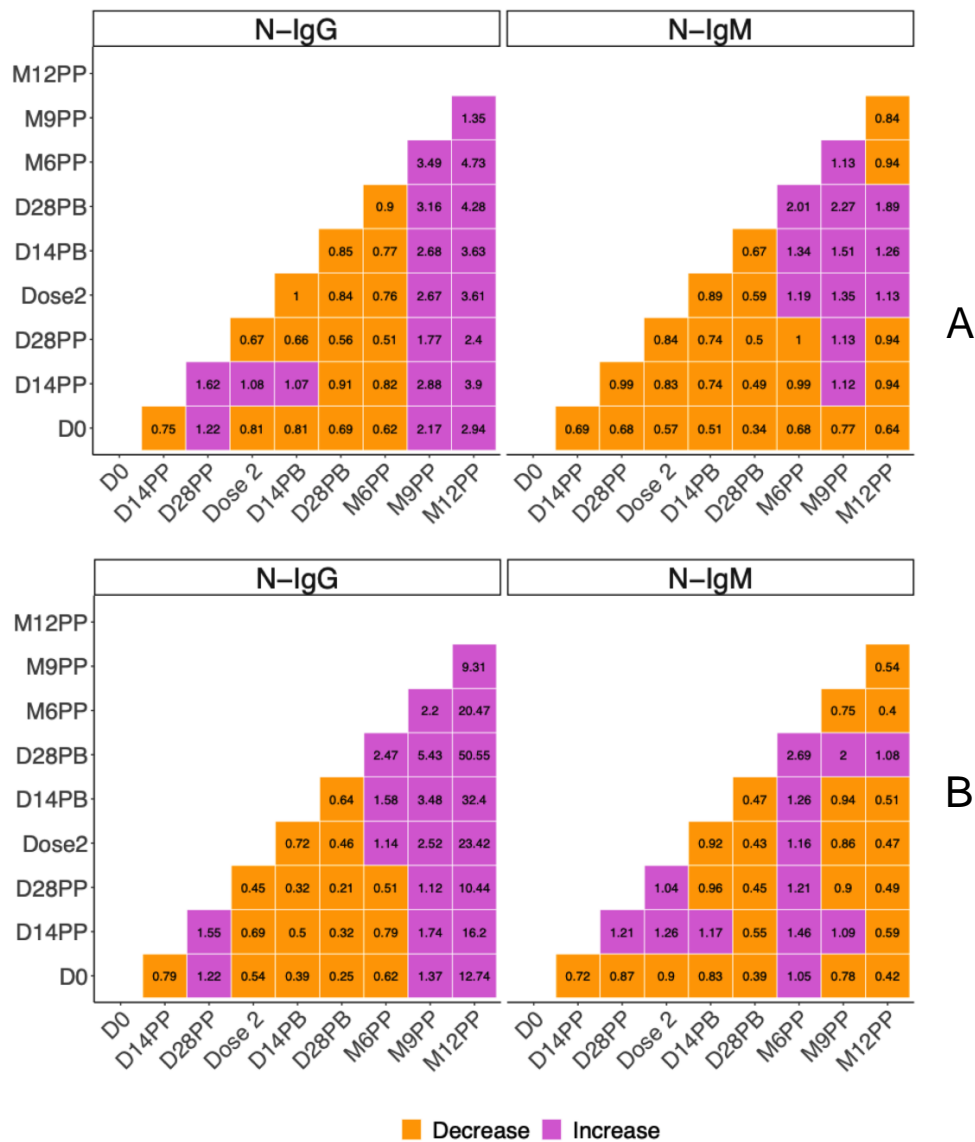

Supplementary Figure 2 illustrates the use of the Wilcoxon signed rank test to compare the median OD levels and concentrations of nucleoprotein-directed IgG and IgM antibody levels over time, with the p-values for the difference between OD or concentration across adjacent time points indicated. Horizontal dashed lines denote the respective isotype cut-offs. The cut-offs for N-IgG and N-IgM are 0.454 and 0.229 respectively. P values of 0.05 or less are considered statistically significant.

Supplementary Figure 3 shows the pre- and post-vaccination IgG and IgM median trajectories over time

*Supplementary Figure 3 shows the median spike- (**A**) and nucleoprotein-directed (**B**) IgG and IgM antibody OD values (450nm) and concentrations (ng/ml) before and after vaccination; medians at specified time points are plotted.*

Supplementary Figure 4: Median fold change in in nucleoprotein-directed antibody levels over time

Supplementary Figure 4 summarises the fold change in nucleoprotein-directed IgG and IgM antibody OD values (A) and concentrations (B) across the different specimen collection time points. The heat map shows the extent of change (increase or decrease) in vaccine-induced antibody response over time. The change between time points is shown with each cell indicating an increase or decrease between any two time-points at the x and y axis. Fold change between 0 to 1 indicate a decrease (orange), Fold change of 1 indicates no change while fold change greater than 1 indicate an increase (purple).