

Expanded View Figures

Figure EV1. Sequence alignment and confirmation of protein expression.

- A Sequence alignment of the three RBD sequences in the OC-2.4 construct in comparison with the Omicron BA variants.
- B Western blot detection of N protein in cell lysates from HEK293 cells 48 h after transfection with indicated plasmid DNA or mRNA. The OC2.4 N protein (70 kDa) is larger than the N protein control (55 kDa) due to the fusion with the M protein.

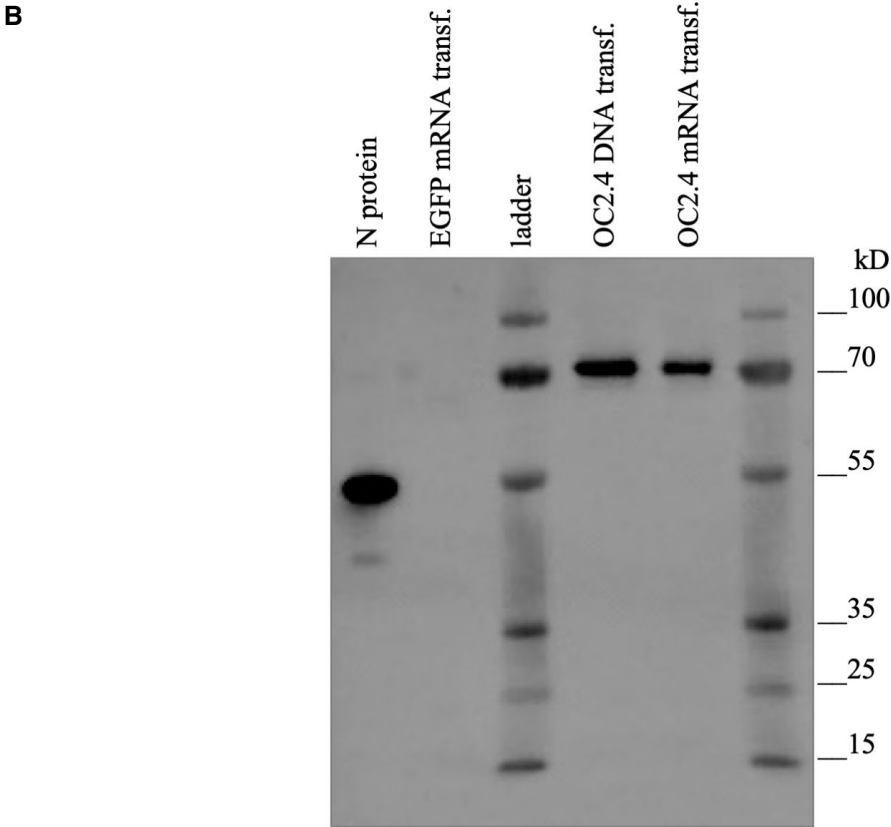
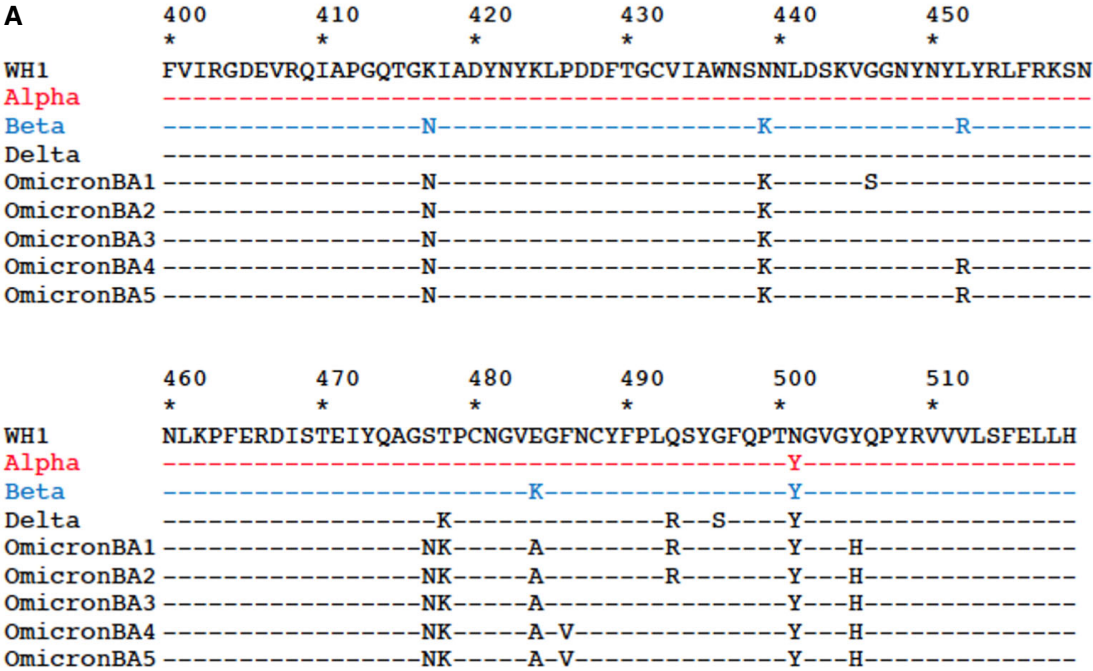


Figure EV1.

Figure EV2. Antibodies to the spike (S) and nucleoproteins (N) 2 weeks after the 1st, 2nd, and 3rd dose of OC-2.4.

Data has been given as the raw data in the form of OD at 450 nm at the serial dilution of individual rabbit sera.



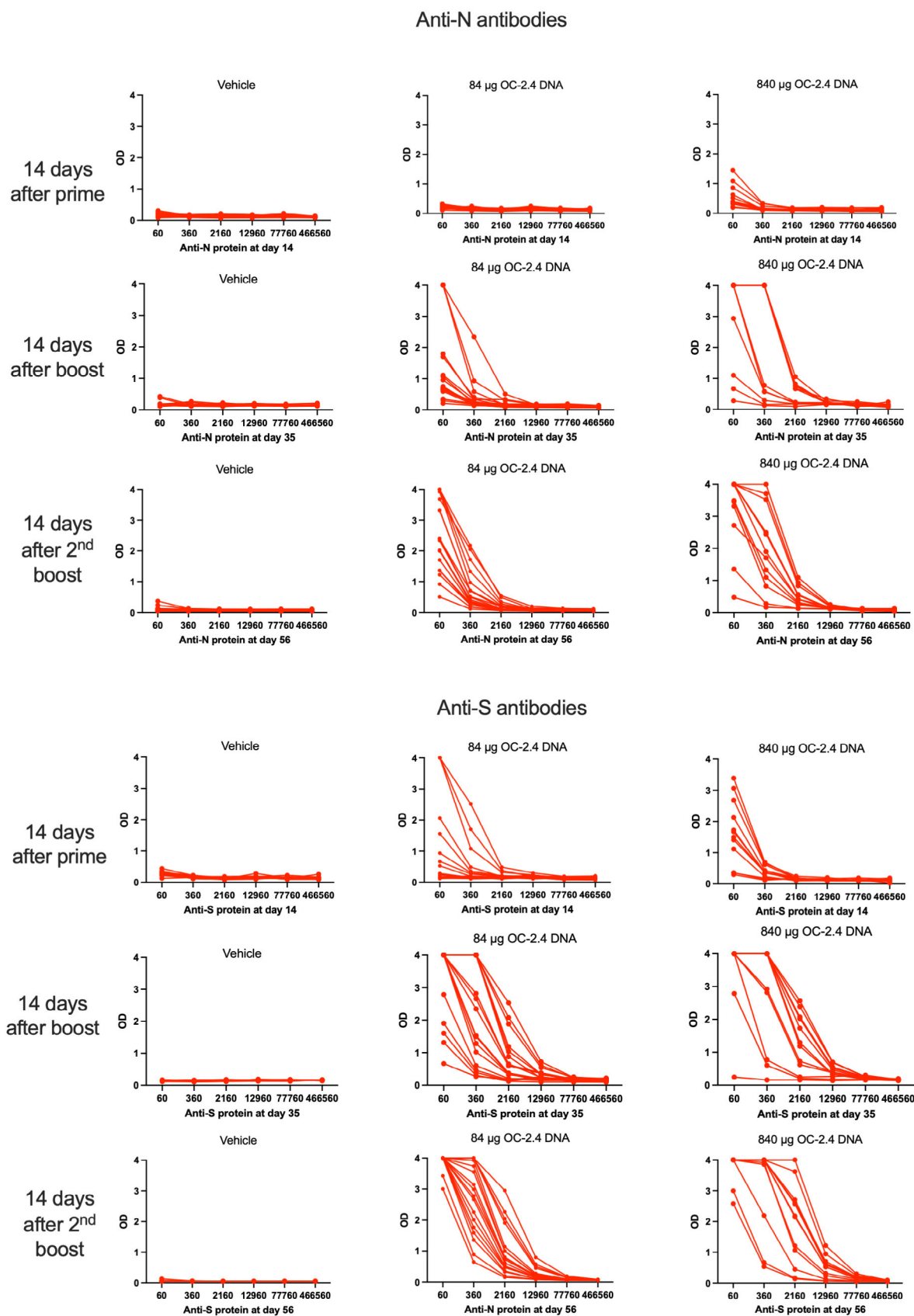


Figure EV2.

Figure EV3. Immune responses to the N protein by different routes of immunization.

A–E Antibody (A) and T cell (B–E) responses to the N protein in C57BL/6 mice after no immunization (B) or two immunizations 3 weeks apart with recombinant N protein in alum (rN/Alum) (C), recombinant N protein in QS21 (rN/QS21) (D), or a DNA plasmid encoding N (WH1) protein (E). Data are given at the number of IFN γ (blue) or IL-2 (red) producing spot forming cells (SFCs)/10⁶ splenocytes. The antibody levels were compared between groups using Mann–Whitney U-test (GraphPad Prism) with one asterisk indicating $P < 0.05$ and two asterisks $P < 0.01$.

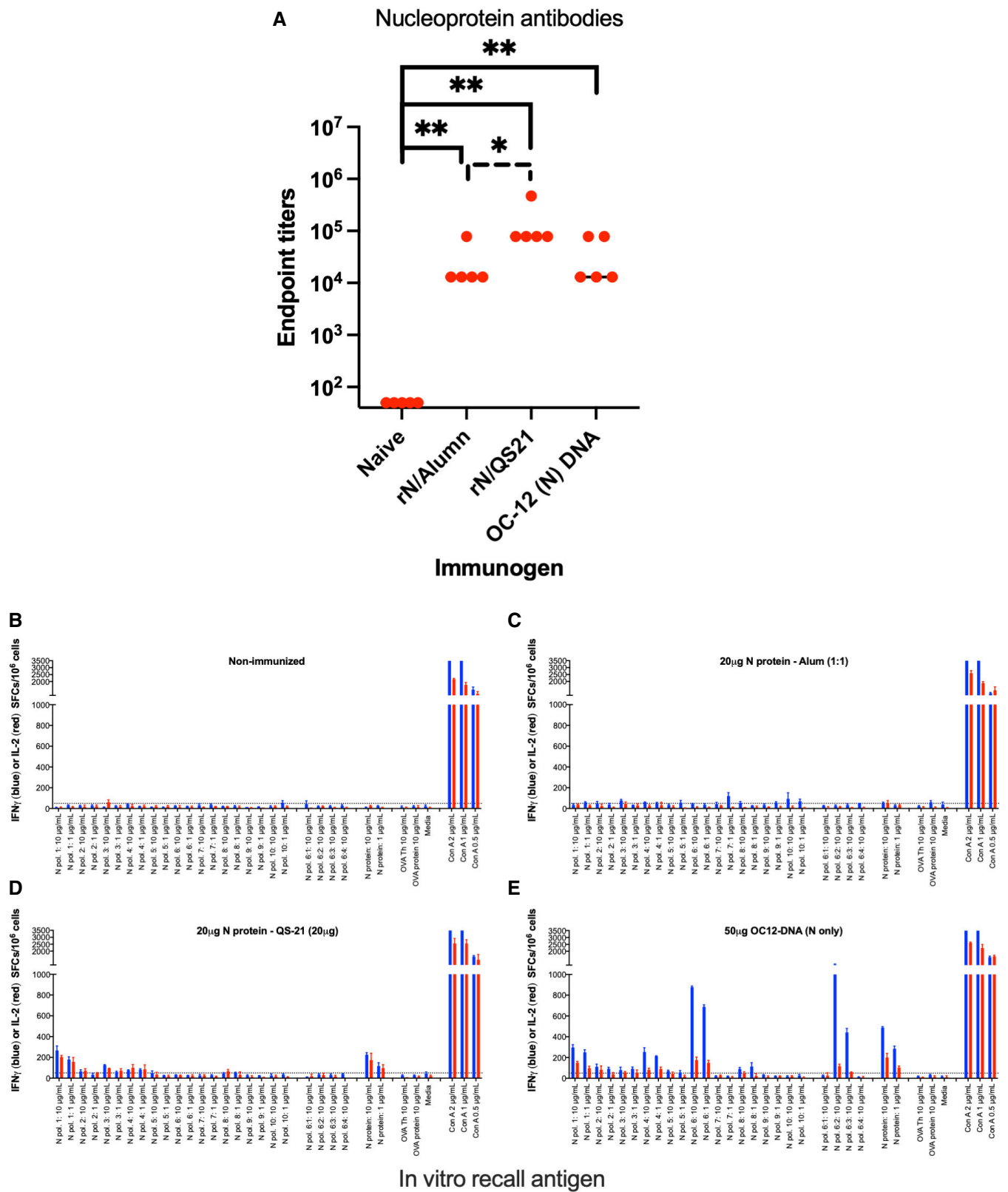


Figure EV3.