

Supplementary Materials for
**mRNA-1273 and BNT162b2 COVID-19 vaccines elicit antibodies with differences in
Fc-mediated effector functions**

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The PDF file includes:

Figs. S1 to S3

Other Supplementary Material for this manuscript includes the following:

MDAR Reproducibility Checklist
Data files S1 to S3

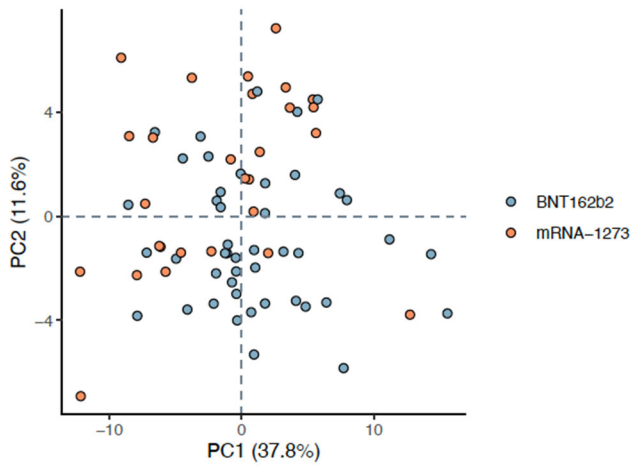


Fig. S1. An unsupervised principal component analysis (PCA) showed partial separation between BNT162b2 and mRNA-1273 vaccine profiles. An unsupervised PCA was performed on all antibody data generated across samples from BNT162b2 or mRNA-1273 vaccinees to examine whether differences exist in Fc-profiles induced by the different mRNA vaccines. PC1, principal component 1; PC2, principal component 2.

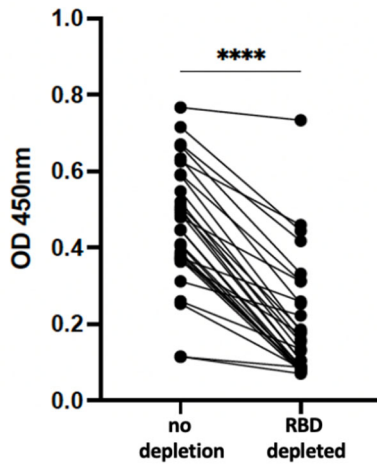


Fig. S2. Comparison of SARS-CoV-2 wild-type receptor binding domain (RBD)-specific antibody concentrations in serum samples before and after RBD-specific antibody depletion. SARS-CoV-2 RBD-specific antibody concentrations were determined by enzyme-linked immunosorbent assay in serum samples before (no depletion) and after RBD-specific antibody depletion (RBD depleted) at a 1:100 dilution. Statistical analysis was carried out with a paired parametric t-test (**** $p < 0.0001$). OD, optical density.

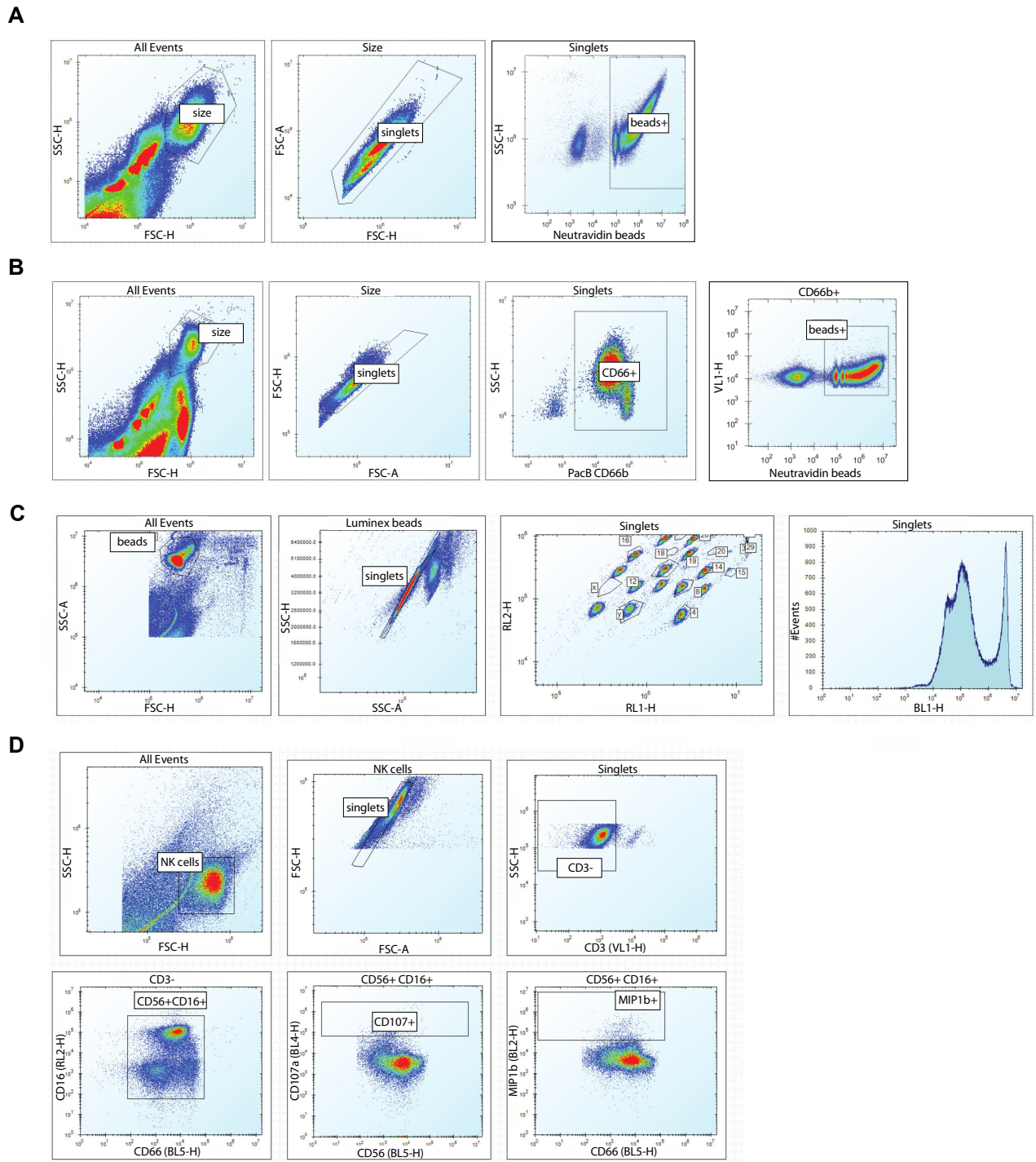


Fig. S3. Gating strategy for antibody-dependent effector assays. The diagram shows the flow cytometry gating strategy for **(A)** antibody-dependent cellular phagocytosis (ADCP) with THP-1 cells, **(B)** antibody-dependent neutrophil phagocytosis (ADNP) with primary human neutrophils, **(C)** antibody-dependent complement deposition (ADCD), and **(D)** antibody-dependent natural killer (NK) cell activation (ADNKA) with primary NK cells. SSC-H, side scatter height; FSC-H,

forward scatter height; FSC-A, forward scatter area; SSC-A, side scatter area; VL1-H, violet laser 1 height; RL1-H, red laser 1 height; RL2-H, red laser 2 height; BL1-H, blue laser 1 height; BL5-H, blue laser 5 height ; BL6-H, blue laser 6 height.

Data file S1. Raw, individual-level data.

Data file S2. Statistical comparison of samples from BNT162b2 and mRNA1273 vaccine recipients.

Data file S3. Statistical comparison of samples from vaccine recipients and individuals with prior SARS-CoV-2 infection.