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Supplemental information

SARS-CoV-2 Omicron Spike recognition by plasma from individuals receiving BNT162b2 mRNA vaccination with a 16-week interval between doses

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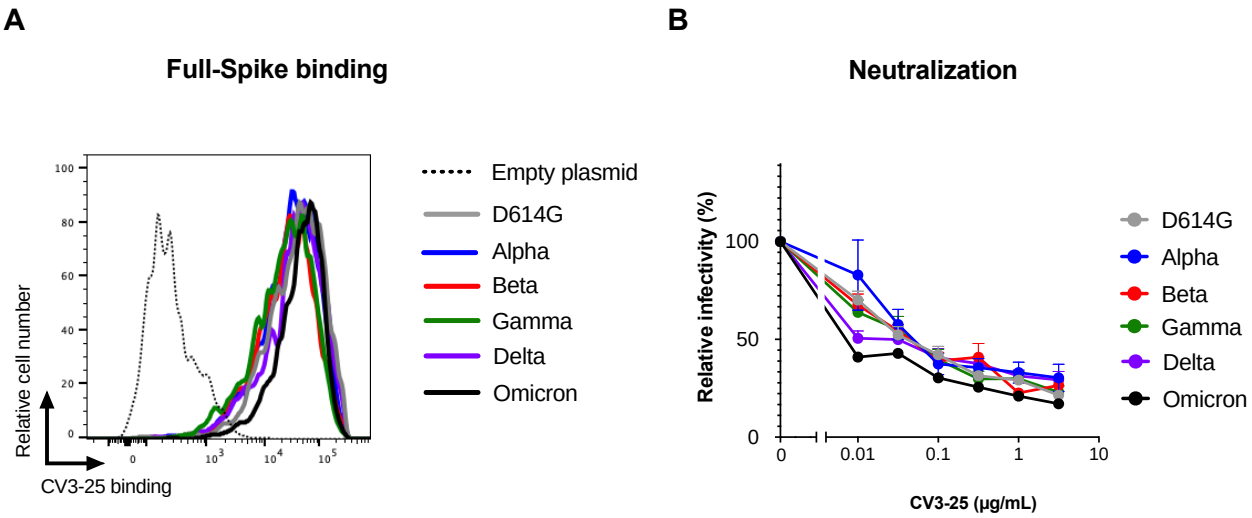
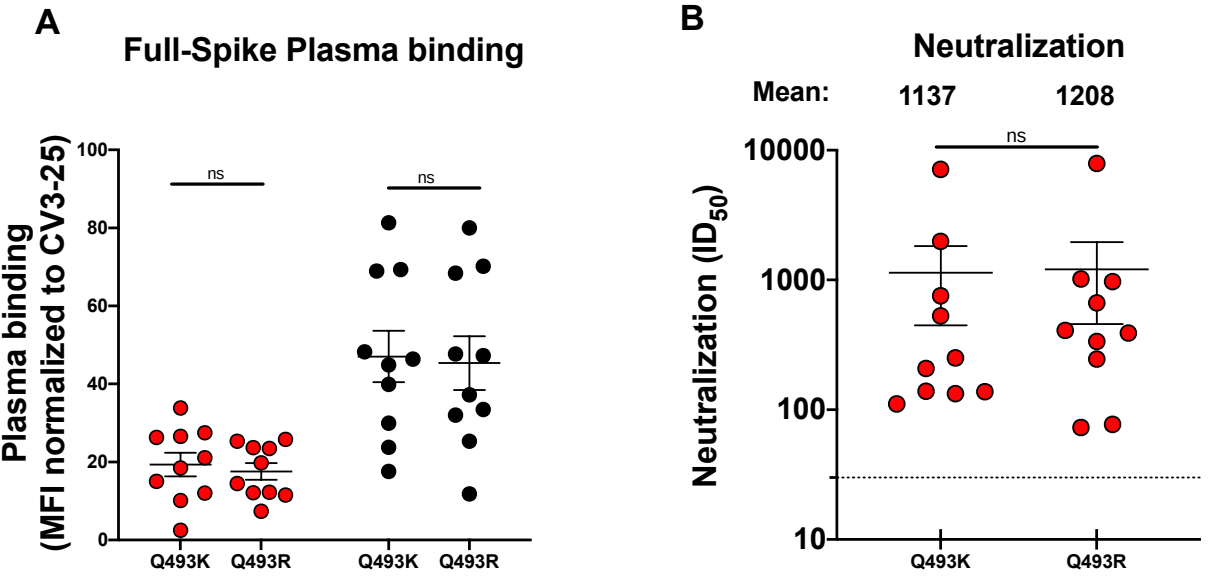


Supplemental Figure 1. Recognition and neutralization of different VOCs Spikes by the anti-S2 neutralizing CV3-25 antibody. Related to Figure 1.

(A) 293T cells were transfected with the full-length Spikes from different VOCs (D614G, Alpha, Beta, Gamma, Delta and Omicron), stained with the CV3-25 Ab and analyzed by flow cytometry. Shown are histograms showing a representative staining on Spike-expressing GFP+ cells. (B) CV3-25 neutralizing activity against pseudoviral particles bearing the different VOC Spikes. Data shown are the mean ± SEM from at least two independent experiments.



Supplemental Figure 2. Recognition and neutralization of Omicron Spikes with Q493K or Q493R changes. Related to Figures 1 and 2.

(A) 293T cells were transfected with the full-length Spikes of Omicron possessing either Q493K or Q493R mutation, stained with the CV3-25 Ab or with plasma collected 3 weeks (V3) after the second dose with a 16-week interval from naïve or previously-infected donors, represented by red and black points respectively and analyzed by flow cytometry. (B) Neutralizing activity was measured by incubating pseudoviruses bearing SARS-CoV-2 Spikes of the two different Omicron mutants as mentioned above, with serial dilutions of plasma collected 3 weeks (V3) after the second dose with a 16-week interval from naïve donors for 1 h at 37°C before infecting 293T-ACE2 cells. Neutralization half maximal inhibitory serum dilution (ID50) values were determined using a normalized non-linear regression using GraphPad Prism software. Error bars indicate means ± SEM. For each group n=10 donors have been used. Each symbol/points indicates one donor. Statistical significance was tested using a Wilcoxon test (ns, non-significant).