

# Results of Studies Evaluating the Impact of SARS-CoV-2 Variants of Concern on COVID-19 Vaccines: An Ongoing Systematic Review

## Neutralization Plots

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## Contents

Methods for Inclusion in Neutralization Plots .....	3
Primary Series Vaccines .....	4
Booster Doses .....	6

## Methods for Inclusion in Neutralization Plots

The studies included in the plots below were identified as part of an ongoing systematic review of studies evaluating the impact of SARS-CoV-2 variants of concern on COVID-19 vaccine performance. Studies from March 15, 2021 onward that report fold reductions in neutralization or that report data that enable the calculation of fold reductions in neutralization are included.

The following studies are not included:

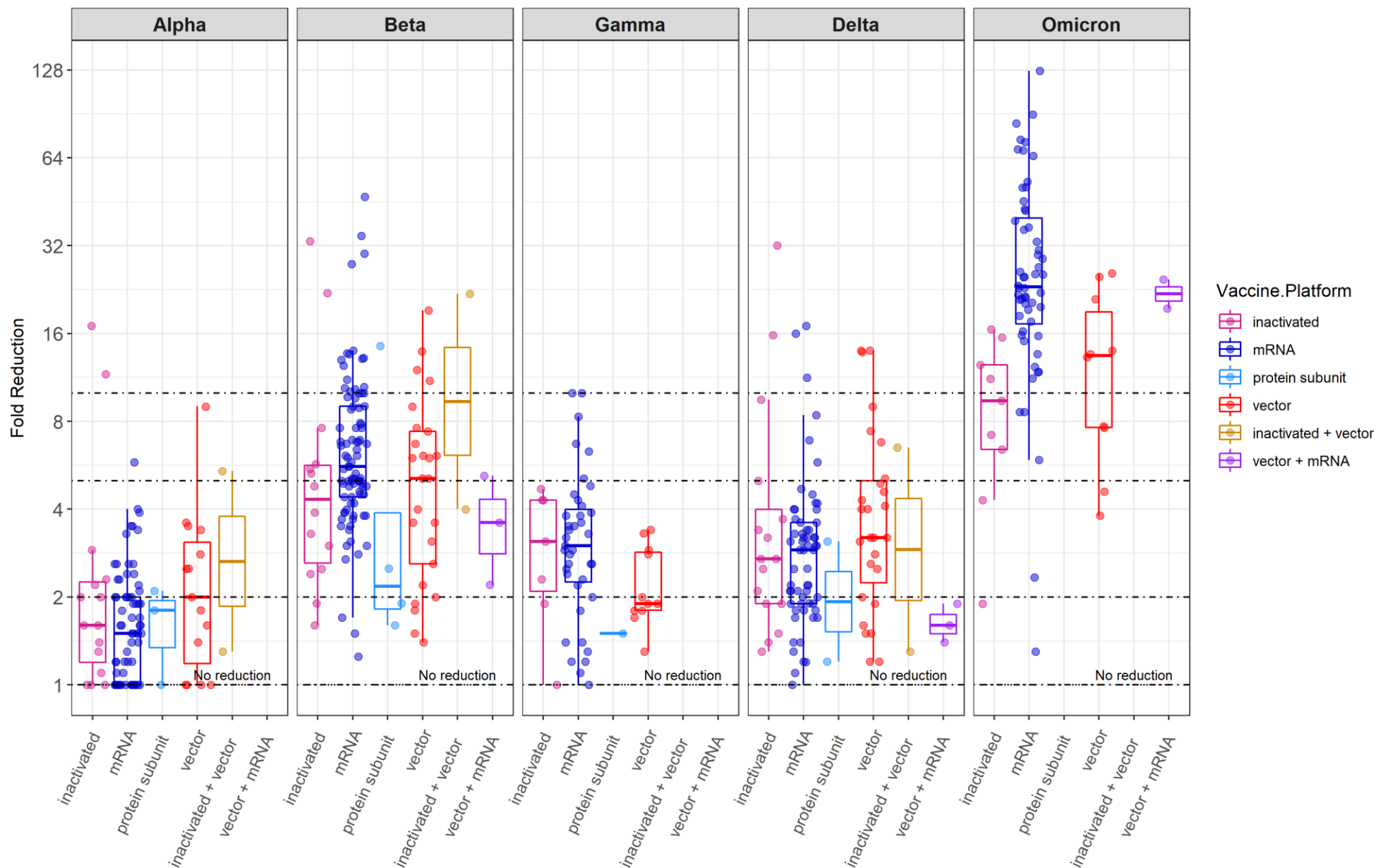
- Studies evaluating partial vaccination
- Studies that collected vaccinee sera < 7 days or > 6 months post final vaccine dose
- Studies that used a variant of concern (e.g. Alpha, Delta) as the reference strain
- Studies of immunocompromised persons
- Studies including samples from persons with hybrid immunity
- Studies using surrogate neutralization assays
- Studies that combine vaccines (with the exception of mRNA vaccines for all VOCs other than Omicron)
- Studies that ND80 results instead of ND50

The WHO COVID-19 Weekly Epidemiological Update is posted weekly on the WHO website (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>). A summary of results from these studies by vaccine and by variant of concern are provided in the WEU every other week.

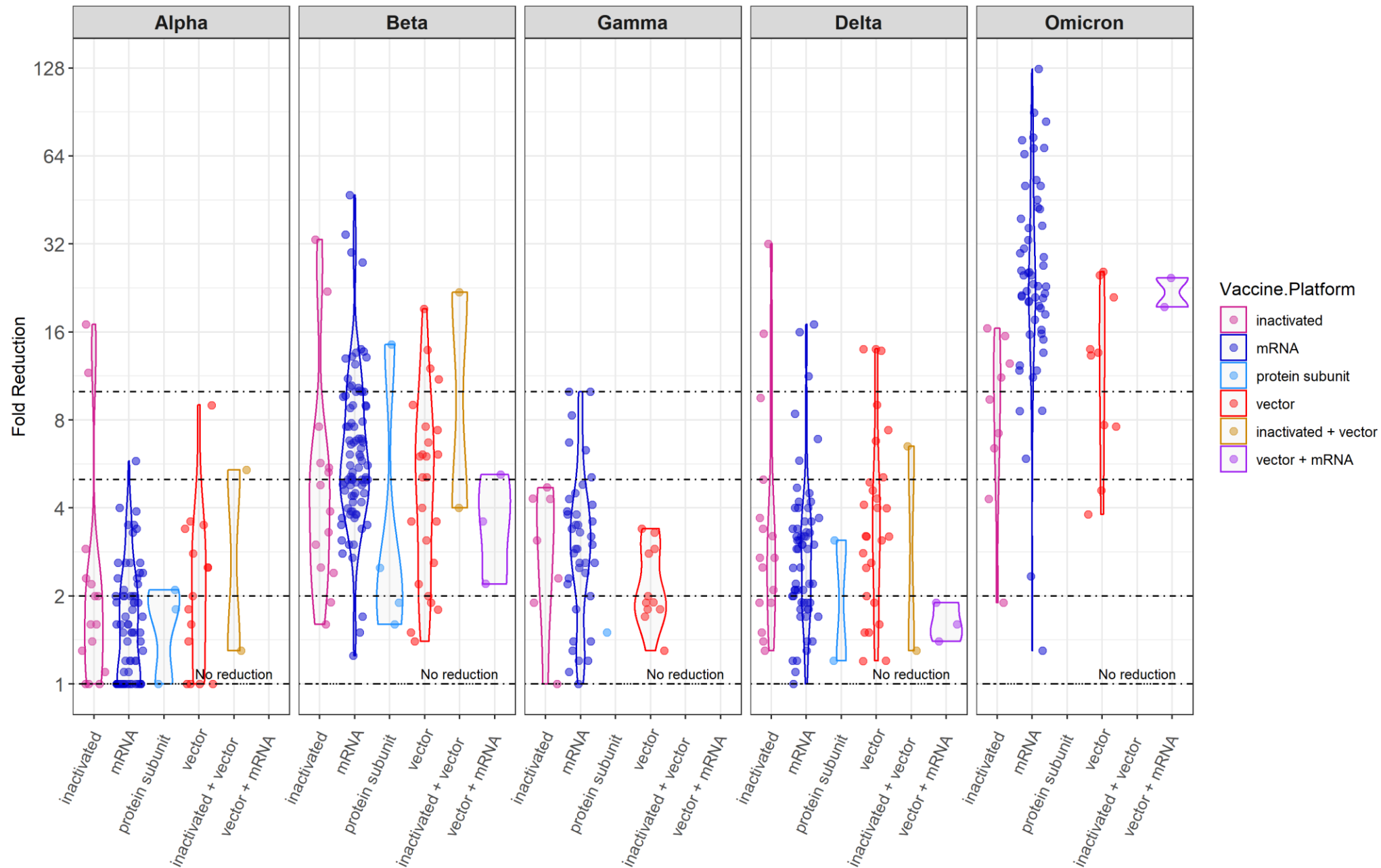
For any questions, comments, or suggestions about this document, please contact Melissa Higdon: [mhigdon@jhu.edu](mailto:mhigdon@jhu.edu).

# Primary Series Vaccines

Fold Reduction in NAb by SARS-CoV-2 Variant of Concern and Vaccine Platform, Box Plot

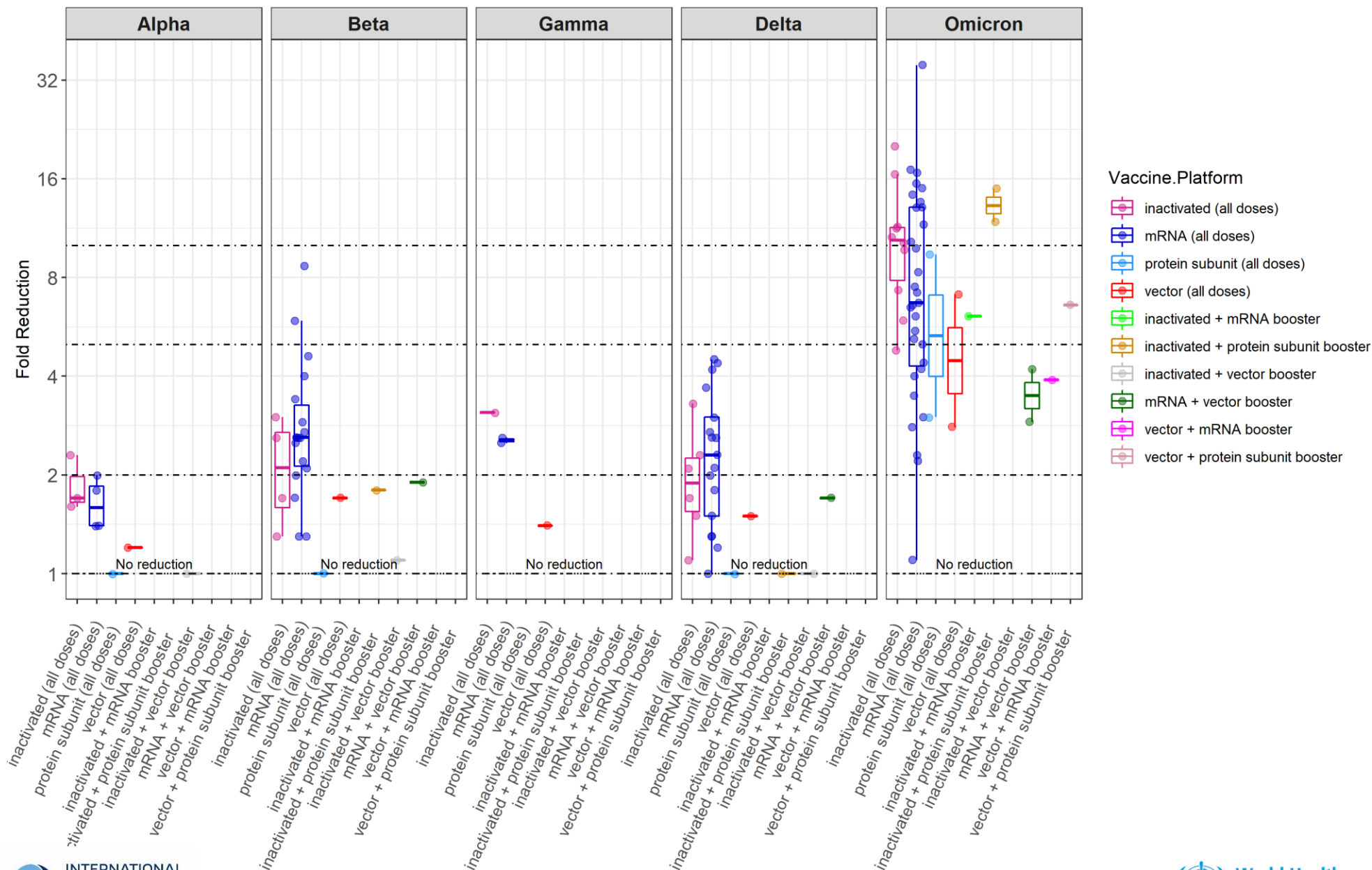


Fold Reduction in NAbs by SARS-CoV-2 Variant of Concern and Vaccine Platform, Violin Plot



# Booster Doses

Fold Reduction in NABs by SARS-CoV-2 Variant of Concern and Vaccine Platform, Box Plot: Booster Doses



Fold Reduction in NABs by SARS-CoV-2 Variant of Concern and Vaccine Platform, Violin Plot: Booster Doses

