Intranasal or airborne transmission-mediated delivery of an attenuated SARS-CoV-2 protects Syrian hamsters against new variants

Authors: Charles B. Stauft^{1,†}, Prabhuanand Selvaraj^{1,†}, Felice D'Agnillo^{2,†}, Clement A. Meseda^{1,†}, Shufeng Liu¹, Cyntia L. Pedro¹, Kotou Sangare¹, Christopher Z. Lien¹, Jerry P. Weir¹, Matthew F. Starost³, Tony T. Wang¹*

Affiliations:

¹Division of Viral Products, Center for Biologics Evaluation and Research, Food and Drug Administration, Silver Spring, Maryland, USA.

²Laboratory of Biochemistry and Vascular Biology, Center for Biologics Evaluation and Research, Food and Drug Administration, Silver Spring, MD, USA.

³Division of Veterinary Resources, Diagnostic and Research Services Branch, National Institutes of Health, Rockville Pike, USA.

*Email: Tony.Wang@fda.hhs.gov

Supplementary Materials

Supplementary figures

Fig. S1

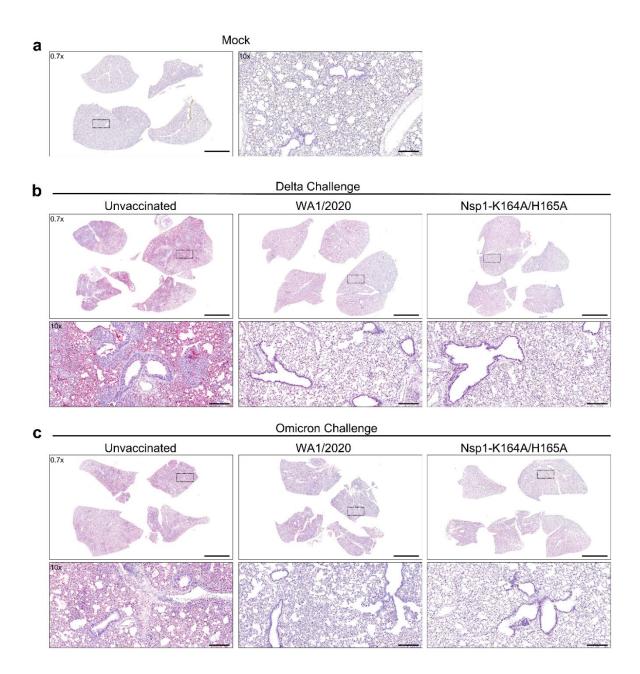


Fig. S1: Nsp1-K164A/H165A protects against TUNEL-positive cell death in hamster lungs post-challenge with Delta and Omicron isolates

Syrian hamsters were vaccinated with Nsp1-K164A/H165A or WA1/2020 35 days prior to challenge with Delta or BA.1 Omicron isolates on day 0. TUNEL reactivity (magenta staining) was examined in lung sections from (**a**) non-infected non-vaccinated hamsters (mock) or

following challenge with (**b**) Delta or (**c**) Omicron at 7 dpi (n = 3 hamsters per group). Nuclei were counterstained with hematoxylin. Black boxes indicate the regions of magnification. Scale bars: 5 mm (0.7x), 250 mm (10x).