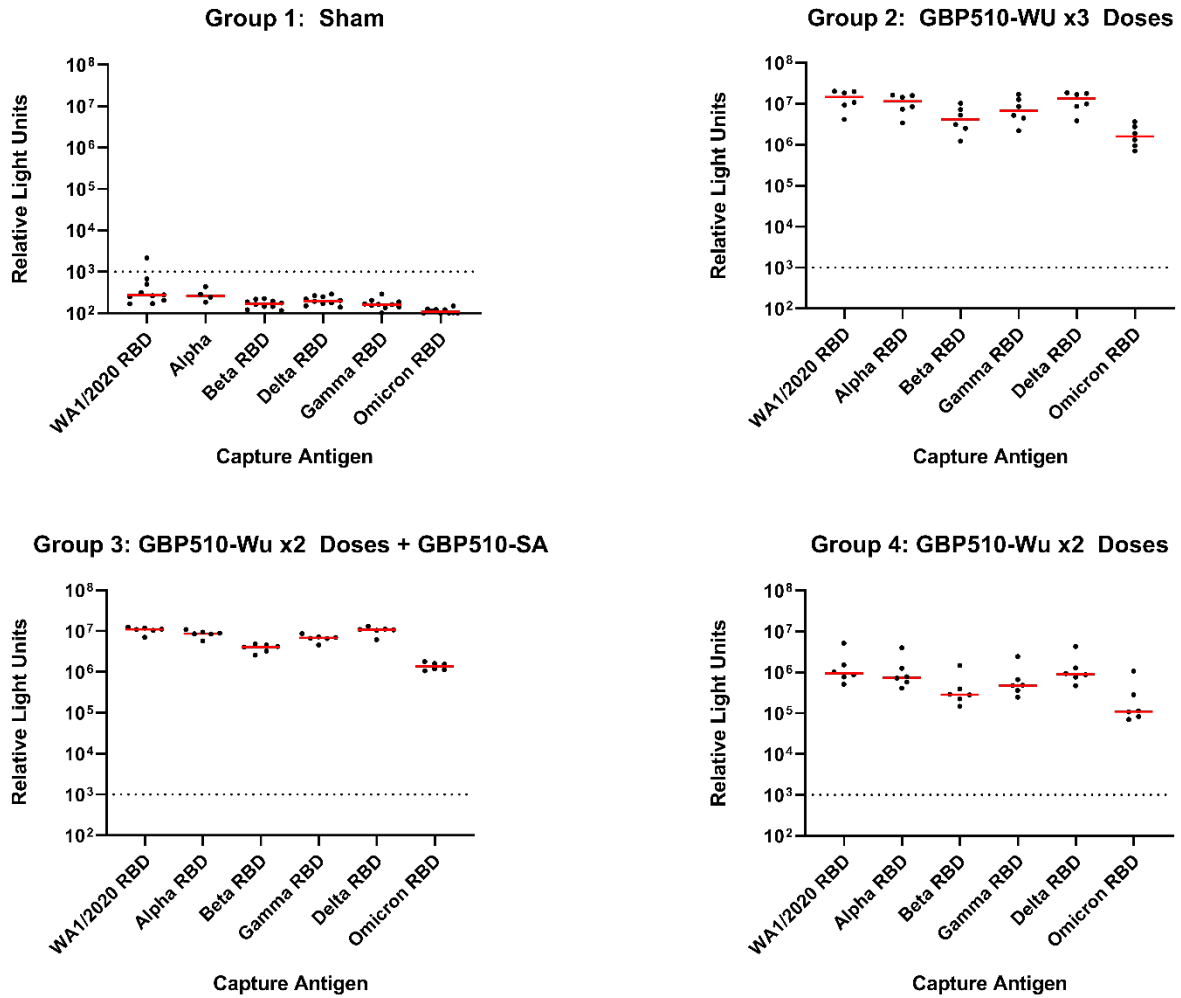
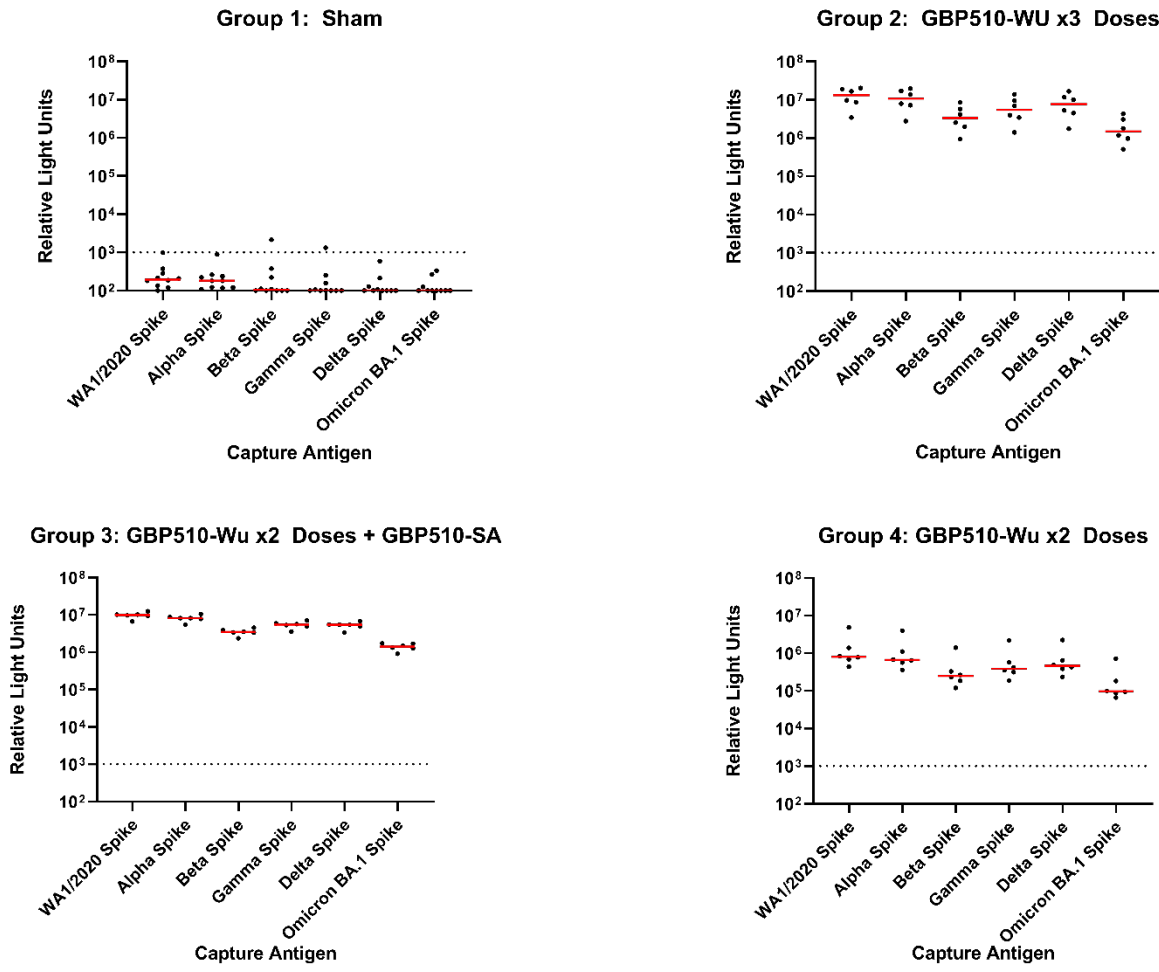


1 **Supplementary Information**



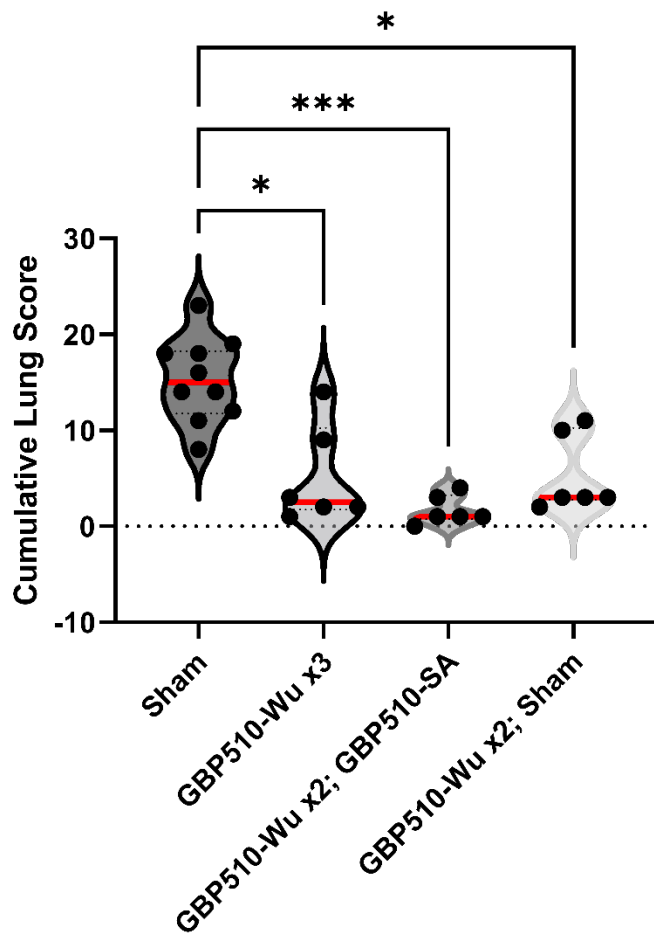
2

3 **Supplementary Figure 1.** Electro-chemiluminescent (ECLA) measured humoral responses to
4 ancestral (WA1/2020) and variant strain RBDs including Alpha, Beta, Delta, Gamma, and
5 Omicron (BA.1).



6

7 **Supplementary Figure 2.** Electro-chemiluminescent (ECLA) measured humoral responses to
 8 ancestral (WA1/2020) and variant strain Spikes including Alpha, Beta, Delta, Gamma, and
 9 Omicron (BA.1).



10

11 **Supplementary Figure 3.** Cumulative lung score via histopathology for each of the groups

12 studied. Vaccinated groups were compared by Kruskal-Wallis test to the sham group, $P=0.0173$

13 for GBP510-Wu x3, $P=0.0002$ for GBP510-Wu x2; GBP510-SA, and $P=0.0483$ for GBP510-Wu

14 x2.