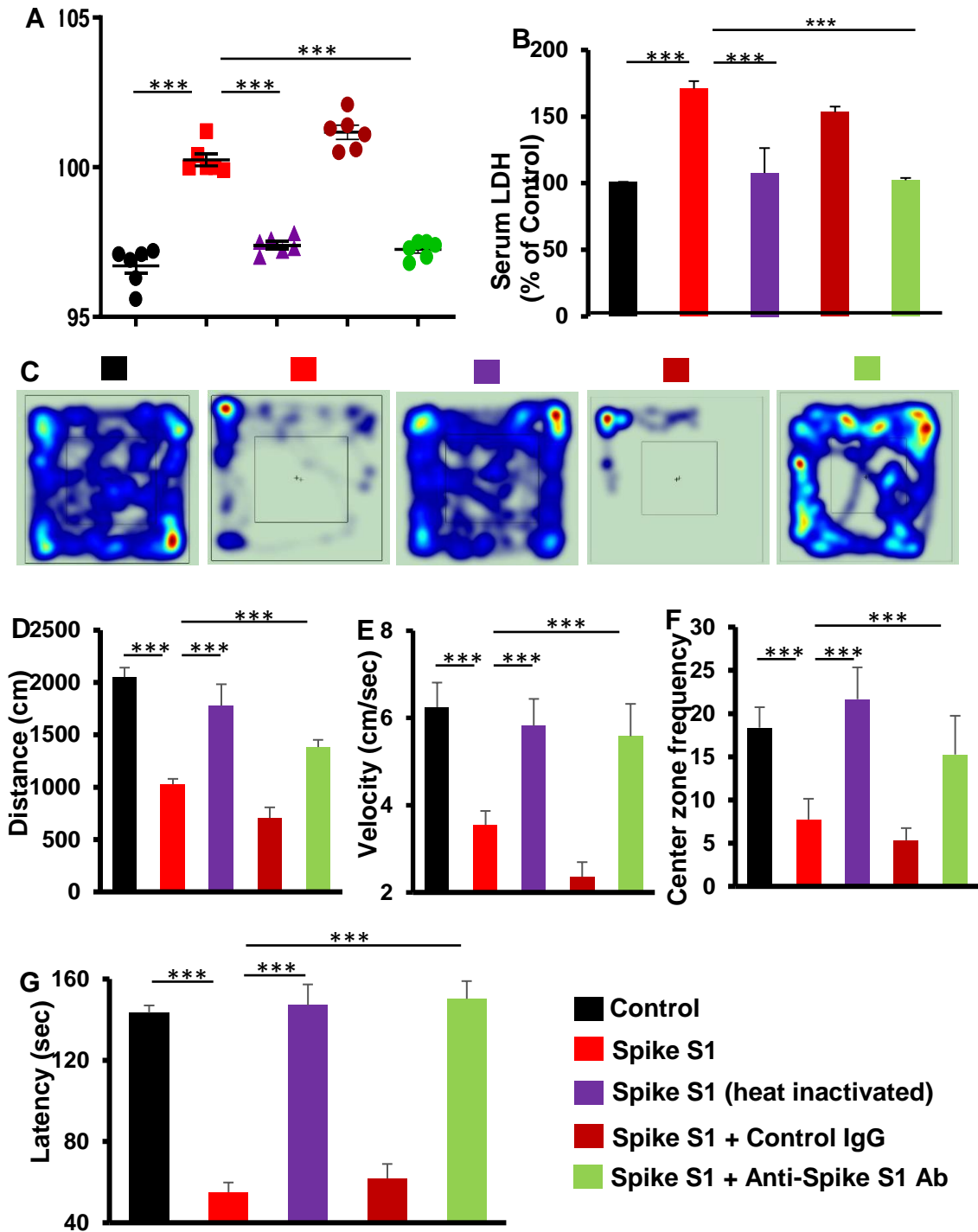


Supplemental Figure 1. Expression of ACE2 and IL-6 in the lungs of C57/BL6 mice. Six-eight-weeks-old C57/BL6 mice ($n=5$) of both sexes were intoxicated with recombinant SARS-CoV-2 spike S1 (50 ng/mouse/d) via intranasal route. After 12d of treatment, lung sections were double-labeled for ACE2 and IL-6 (A). Mean fluorescence intensity (MFI) of ACE2 (B) and IL-6 (C) was measured from one section (two images per section) of each of five mice ($n=5$) per group. Results are mean \pm SEM of 5 mice per group.



Supplemental Figure 2. Specificity of SARS-CoV-2 spike S1-mediated mouse model of COVID-19.

Six-eight-weeks-old C57/BL6 mice ($n=6$) of both sexes were intoxicated with recombinant SARS-CoV-2 spike S1 (50 ng/mouse/d) via intranasal route. To understand the specificity, one group of mice received same amount of boiled SARS-CoV-2 spike S1. Other groups of mice received the combination of SARS-CoV-2 spike S1 (50 ng) and 200 ng of either anti-spike S1 antibody or control IgG. A) Body temperature was monitored after 5 d by a Cardinal Health Dual Scale digital rectal thermometer. Serum LDH was monitored after 12 d (B). Mice were also tested for general locomotor activities (C, heat map; D, distance travelled; E, velocity; F, center zone frequency; G, rotorod latency). Results are mean \pm SEM of 6 mice per group. *** $p < 0.001$.