



**SUPPLEMENTARY FIG. S4. MitoTEMPO relieves lung histopathological changes in Hkx-31-infected mice at day 5.** Histopathological analysis of lungs from WT C57Bl/6J mice treated once daily via intranasal administration of MitoTEMPO (100  $\mu$ g) over a 6-day period 1 day before virus infections. Mice were intranasally infected with X31 (10<sup>3</sup> PFUs) or PBS (control). Representative images displaying the inflammation in lung were sectioned longitudinally following H&E staining at day 5 postinfection. Each sample was scored blindly from 0 to 5 for each individual mouse (higher numbers indicate increased disease severity) from two independent assessors. Sections were scored for alveolitis (*black arrows*), inflammatory cell infiltrate, and peribronchiolar inflammation (*red arrows*). Representative images are presented at three different magnifications (1 $\times$ [clear], 3 $\times$ [blue], 6 $\times$ [green]). Data are expressed as mean  $\pm$  SEM (Control,  $n=6-8$ ; MitoTEMPO,  $n=6-8$ ; X31  $n=10$  X31+mito  $n=12-14$ ). Statistical analysis was conducted using one-way ANOVA test followed by Tukey's *post hoc* test for multiple comparisons. Statistical significance was taken where  $p < 0.05$  (\*\* $p < 0.01$ ).