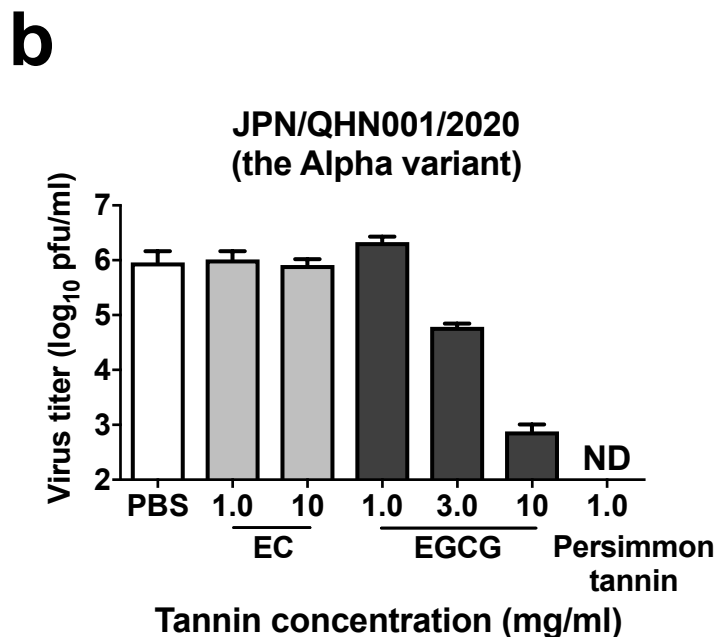
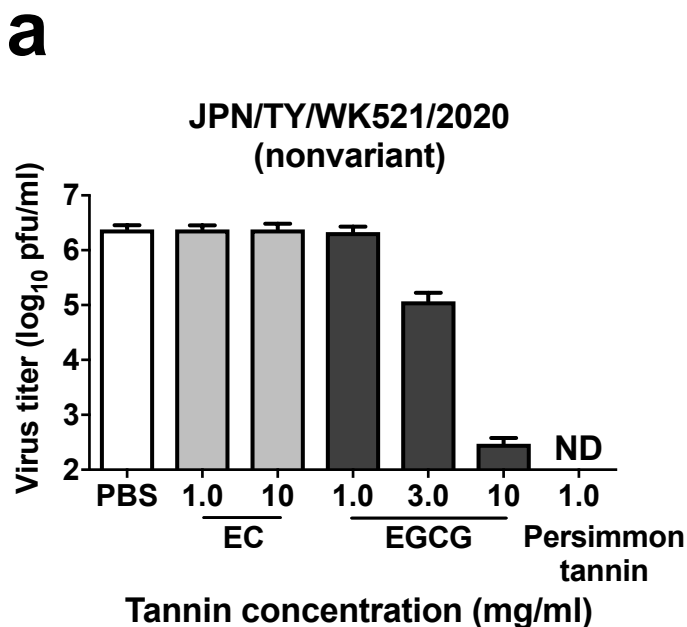


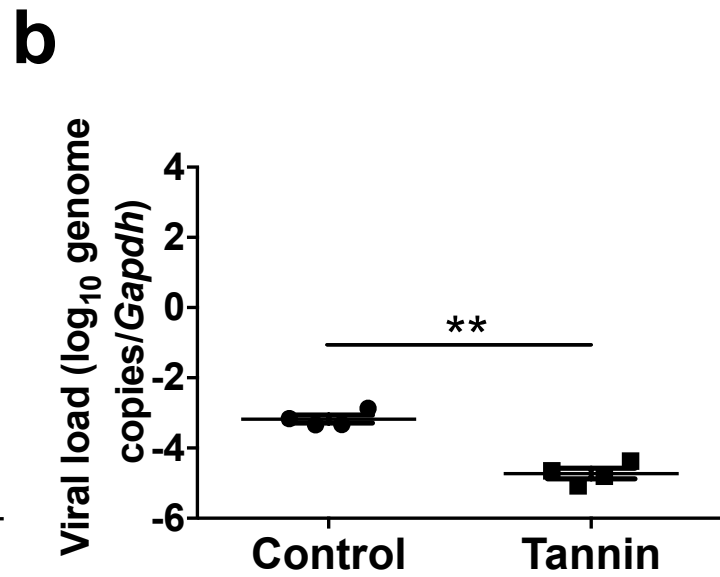
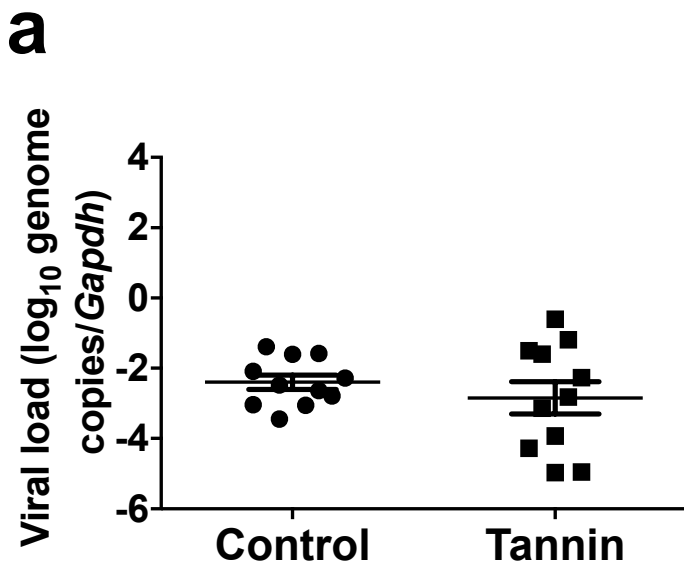
# **Supplementary information**

**Persimmon-derived tannin has antiviral effects and reduces the severity of infection and transmission of SARS-CoV-2 in a Syrian hamster model**

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**Supplementary Figure S1.** *In vitro* examination of different types of tannin against SARS-CoV-2 strain of (a) JPN/TY/WK521/2020 (nonvariant) and (b) JPN/QHN001/2020 (the Alpha variant). Epicatechin (EC), epigallocatechin gallate (EGCG), and persimmon-derived tannin powder was dissolved in distilled water and mixed with an amount of SARS-CoV-2 solution equal to  $1 \times 10^7$  plaque-forming units (pfu)/ml. After 10 minutes of reaction time, bovine serum albumin adjusted to 1% using PBS was added to block the tannin effect. The SARS-CoV-2 titers of each tannin-virus solution were measured using the plaque assay method. Data are shown as the mean  $\pm$  SEM of three independent experiments. EC, epicatechin; EGCG, epigallocatechin gallate; ND, not detected.



**Supplementary Figure S2.** Viral load in the tongue of (a) hamsters directly inoculated with SARS-CoV-2 (control group,  $n = 11$ ; tannin group,  $n = 11$ ) and (b) hamsters cohoused with a virus-inoculated donor (control group,  $n = 4$ ; tannin group,  $n = 4$ ). Viral load was measured by quantitative PCR. RNA extracted from the tongue was used and normalized to *Gapdh* expression. Data are shown as the mean  $\pm$  SEM. \*\* $p < 0.01$ .