scantox

In vivo Animal Models

SARS-CoV-2 Infection

Reprodcucible SARS-CoV-2 models

Effective and successful rodent models and study set-ups are essential to ensure optimal selection of promising vaccines and anti-virals against SARS-CoV-2.

At Scantox, we have developed reprodcucible SARS-CoV-2 models in hACE2 transgenic **mice**, Golden Syrian **hamster** and **ferret.** The models have been used to evaluate both anti-virals and vaccines against SARS-CoV-2.

Transgenic murine models (K18 and AC70) show mild to severe infectionn (dependent on the virus strain) due to over-expression of hACE2. Golden hamsters and ferrets are naturally susceptible to SARS-CoV-2 and show a milder, more human-like infection.

Figure 1
Intranasal infection of AC70 hACE2 mice with 1 x 106 SARS-CoV-2 Wuhan (A and B) or K18 hACE2 mice with 1 x 105 SARS-CoV-2 Wuhan (C and D).

Animals show a decrease in body weight and survival between 4 and 6 days post-infection.

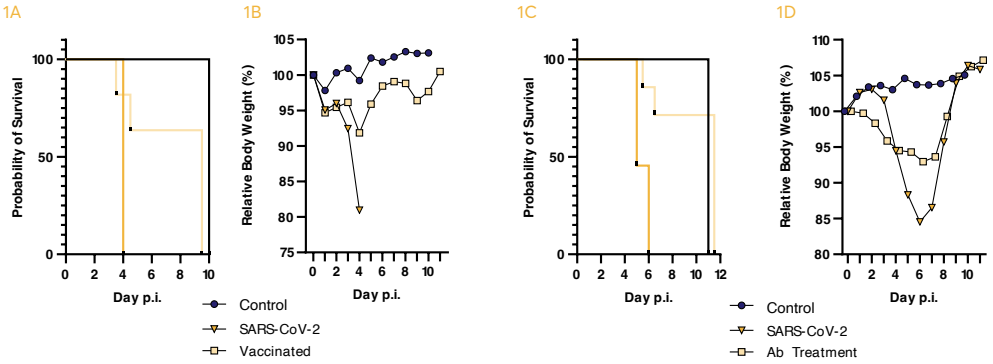


Figure 2
Intranasal infection of hamsters with 106 SARS-CoV-2 Delta

SARS-COV-2 infeciton results in a marked decrease in body weight (A), XXXXXX (B) and increased inflammatory changes in the lower (C) and upper (D) airways.

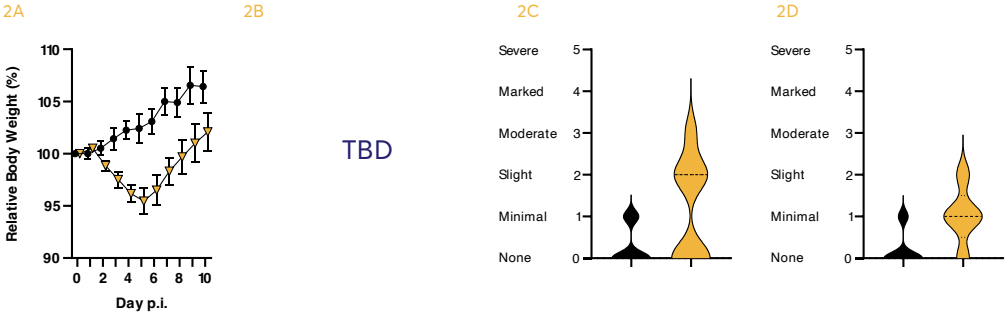
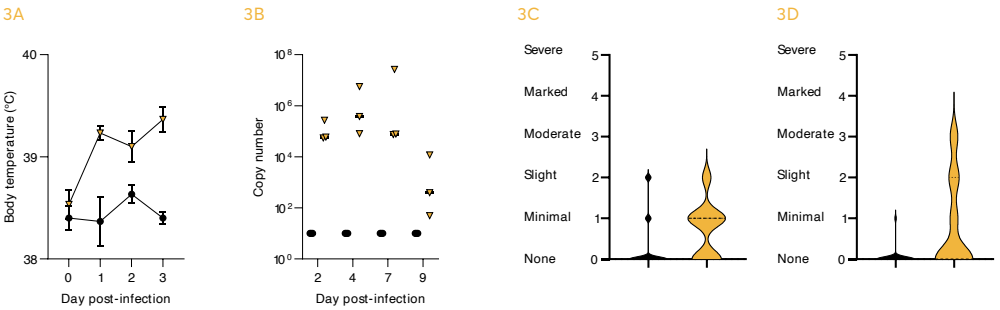


Figure 3
Intranasal infection of ferrets with 106 SARS-CoV-2 WH1

SARS-COV-2 infection results in an increase in body temperature (A), an increase in SARS-CoV-2 E-gene (B) and increased inflammatory changes in the lower (C) and upper (D) airways on D XXX post-infection



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Discovery

Important note:
Representative data are shown throughout this document. However, biological variability might cause deviations from shown data.

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