Figures

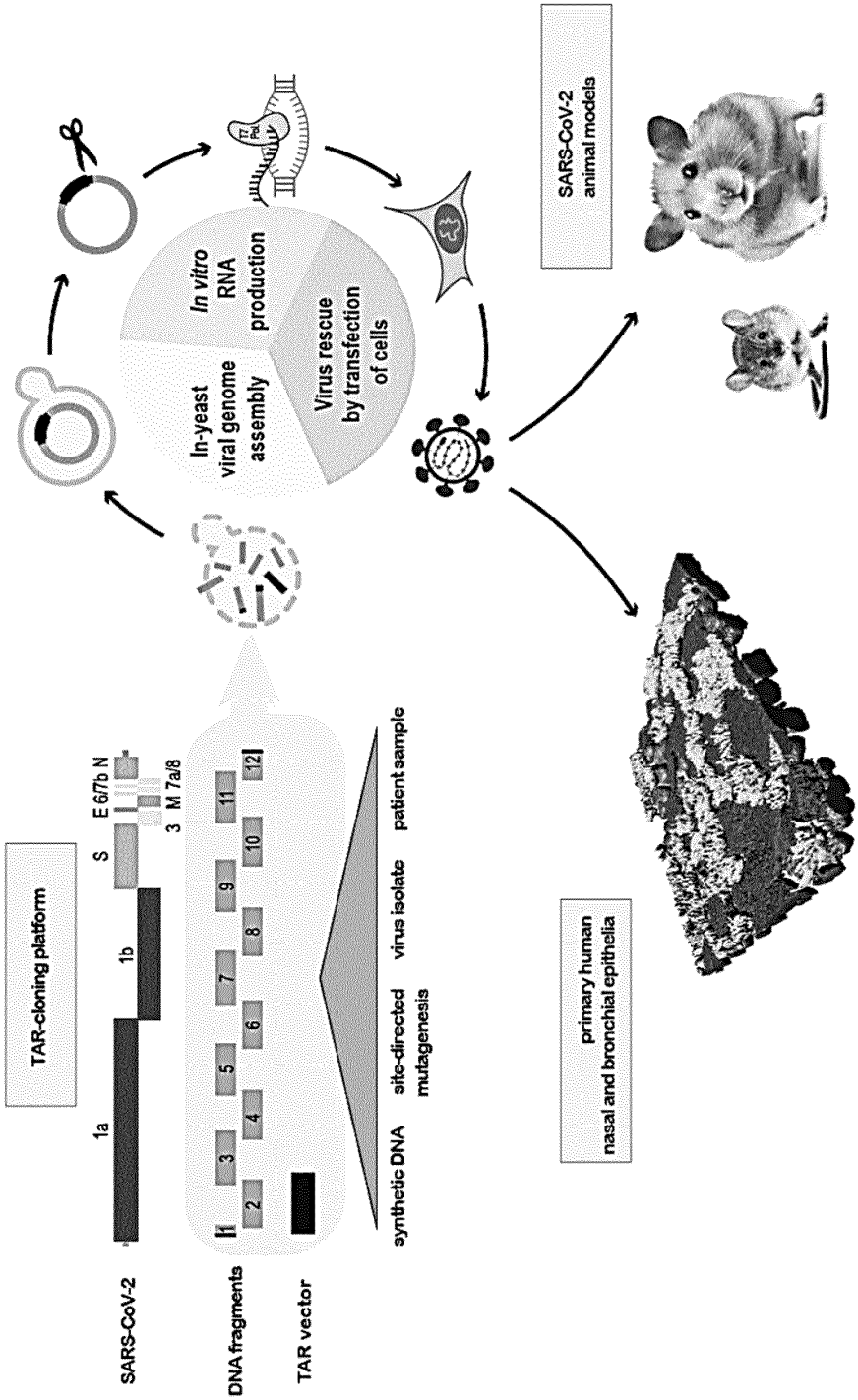


Figure 1

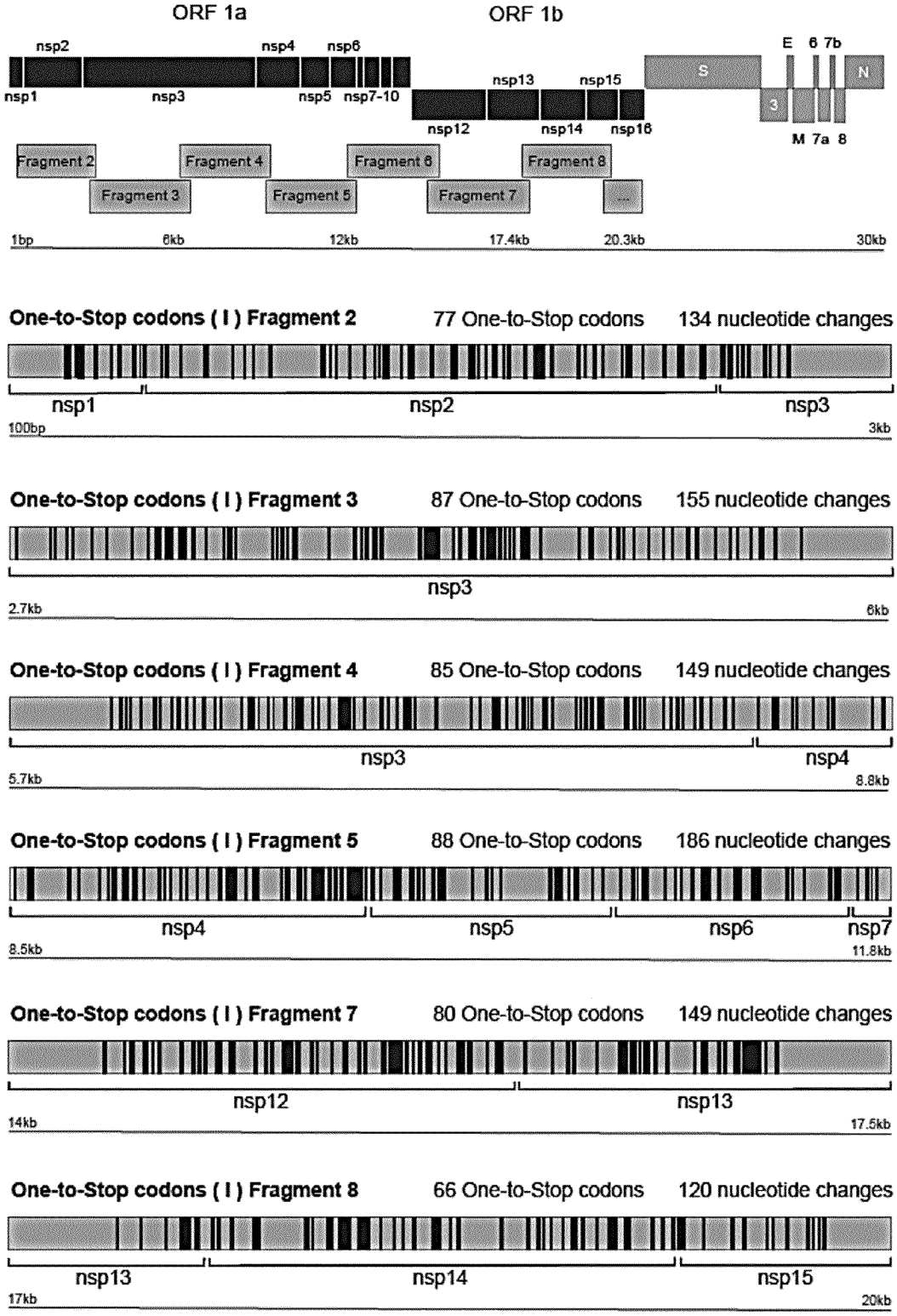
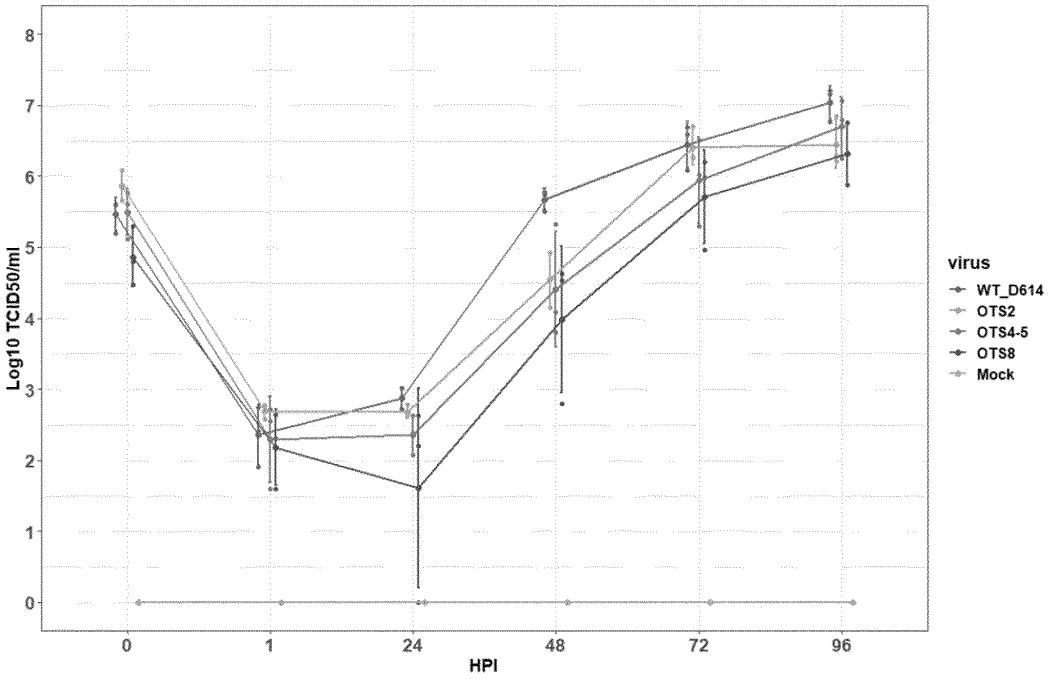

ORF 1a
ORF 1b
nsp2
nsp4
nsp6
nsp1
nsp3
nsp5
nsp7-10
nsp13
nsp15
nsp12
nsp14
nsp16
S
E
6
7b
N
3
M
7a
8
Fragment 2
Fragment 4
Fragment 6
Fragment 8
Fragment 3
Fragment 5
Fragment 7
...
1bp
6kb
12kb
17.4kb
20.3kb
30kb
One-to-Stop codons (I) Fragment 2
77 One-to-Stop codons
134 nucleotide changes
nsp1
nsp2
nsp3
100bp
3kb
One-to-Stop codons (I) Fragment 3
87 One-to-Stop codons
155 nucleotide changes
nsp3
2.7kb
6kb
One-to-Stop codons (I) Fragment 4
85 One-to-Stop codons
149 nucleotide changes
nsp3
nsp4
5.7kb
8.8kb
One-to-Stop codons (I) Fragment 5
88 One-to-Stop codons
186 nucleotide changes
nsp4
nsp5
nsp6
nsp7
8.5kb
11.8kb
One-to-Stop codons (I) Fragment 7
80 One-to-Stop codons
149 nucleotide changes
nsp12
nsp13
14kb
17.5kb
One-to-Stop codons (I) Fragment 8
66 One-to-Stop codons
120 nucleotide changes
nsp13
nsp14
nsp15
17kb
20kb

Figure 2

A



B

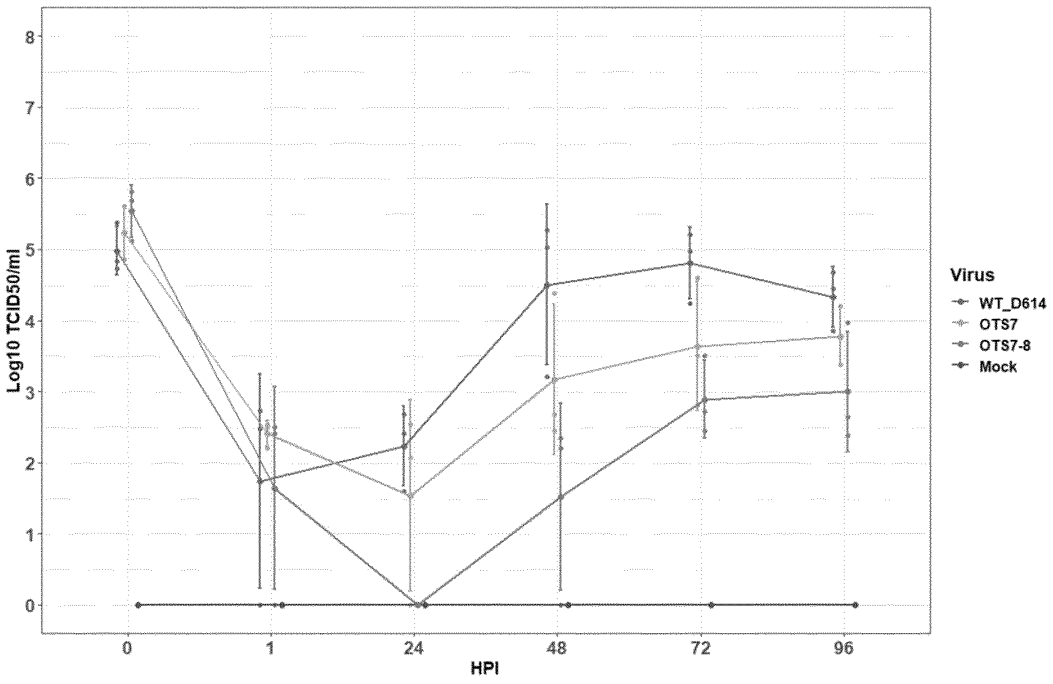
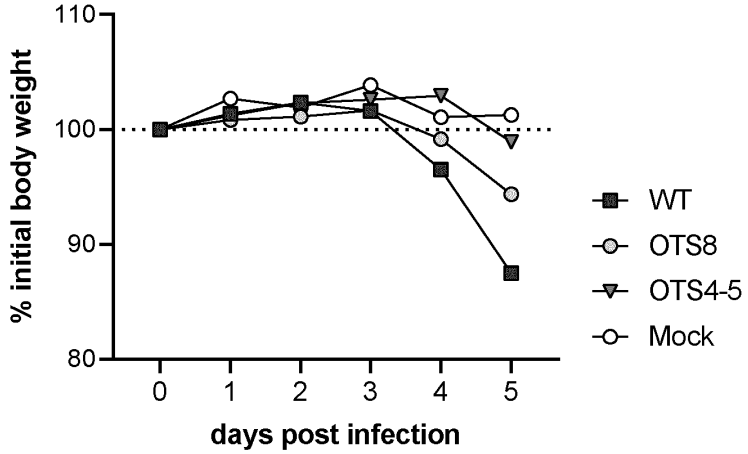


Figure 3 A,B

A



B

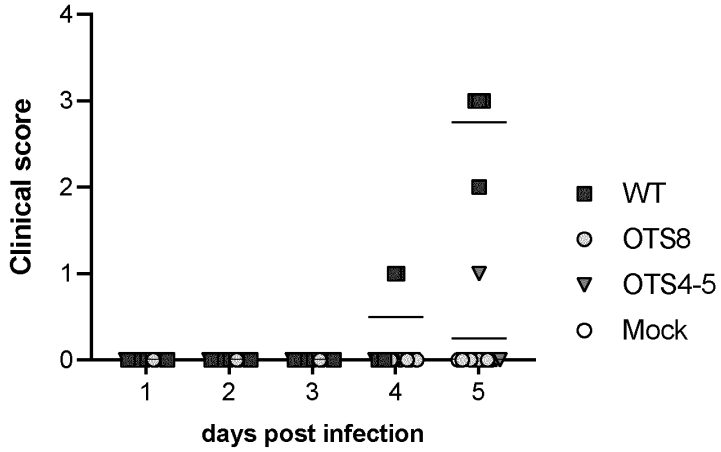
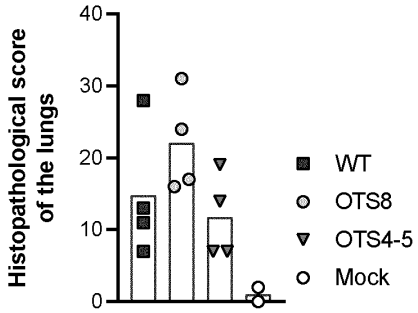
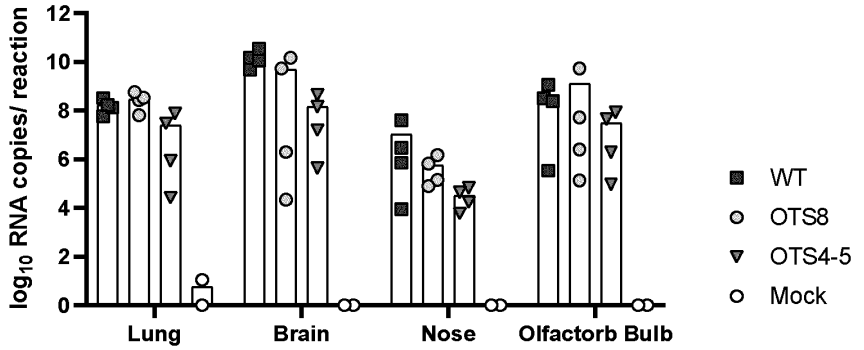


Figure 4 A, B

C



D



E

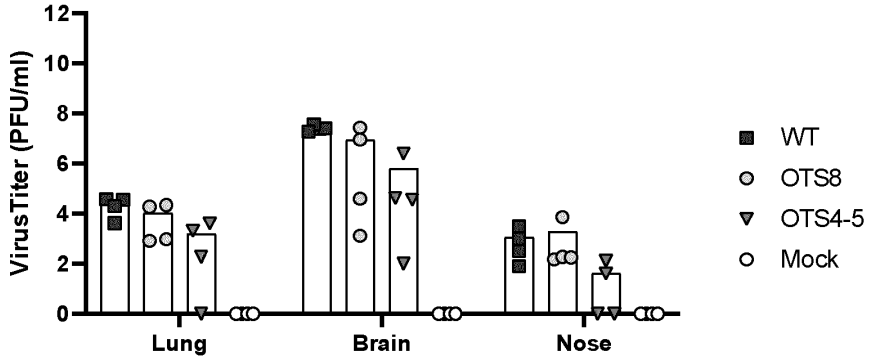
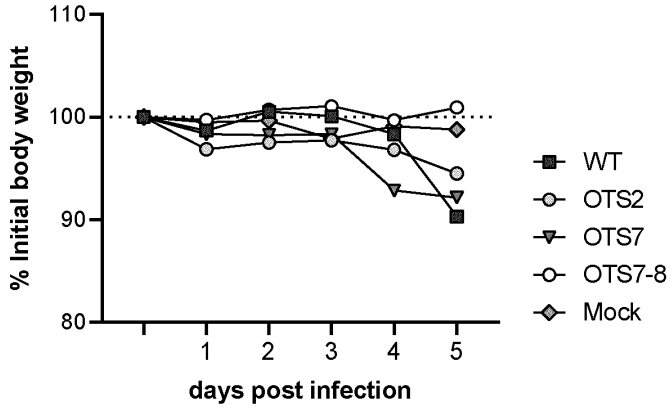


Figure 4 C,D,E

A



B

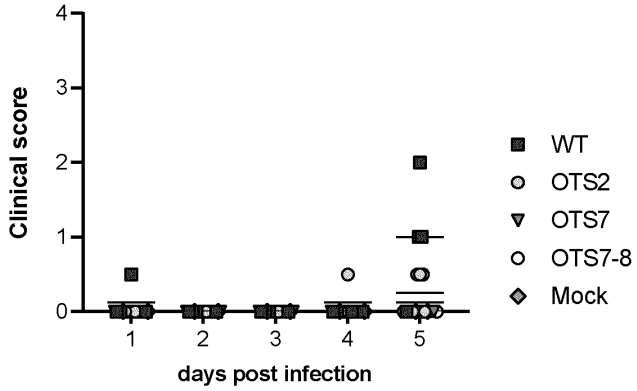
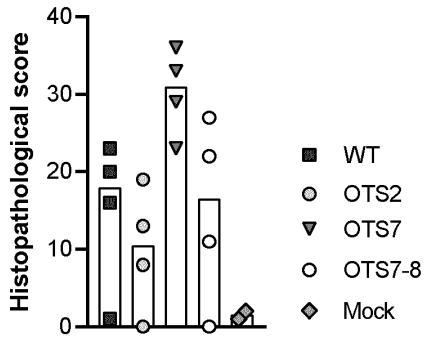
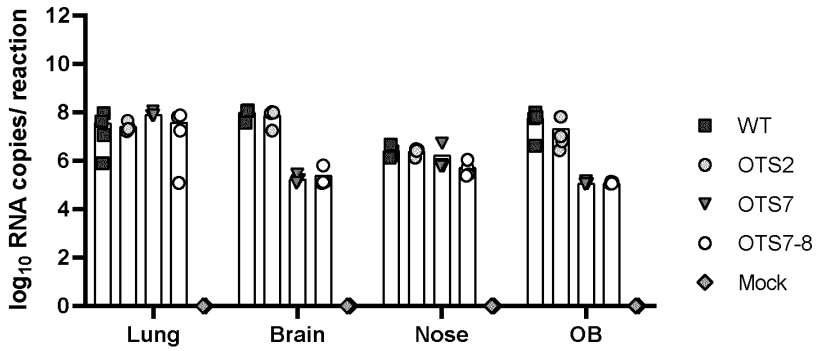


Figure 5 A, B

C



D



E

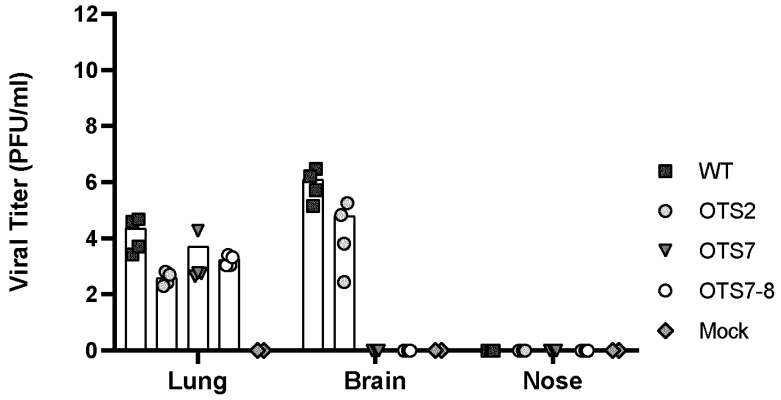
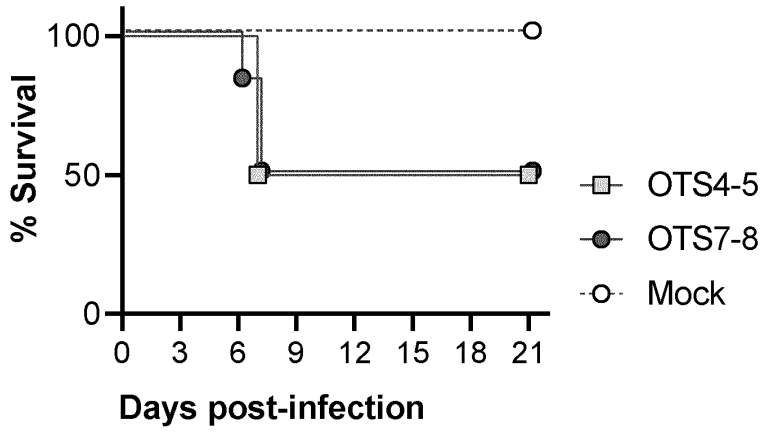


Figure 5 C, D, E

A



B

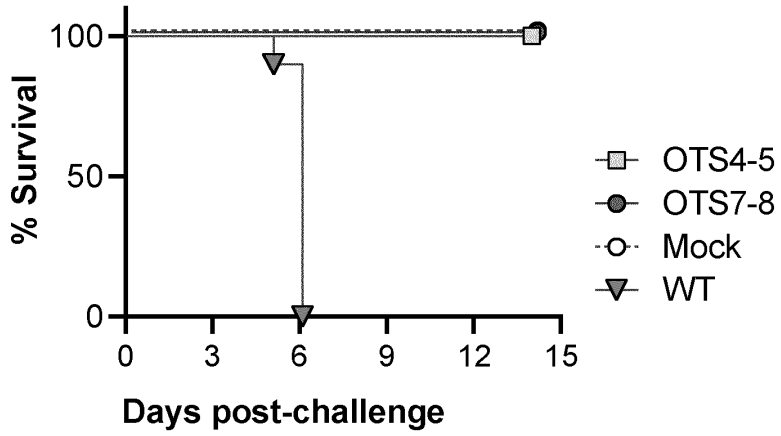
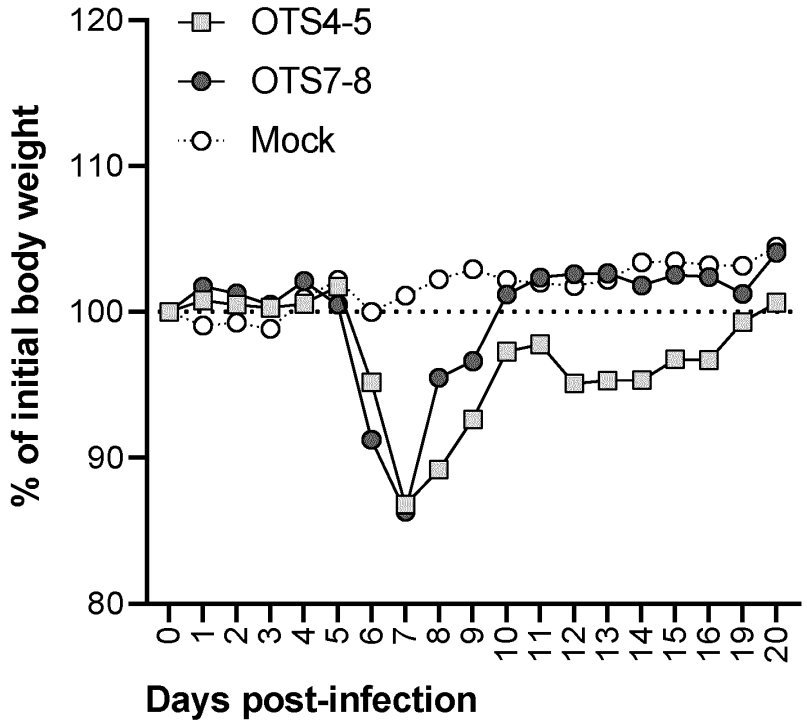


Figure 6 A, B

C



D

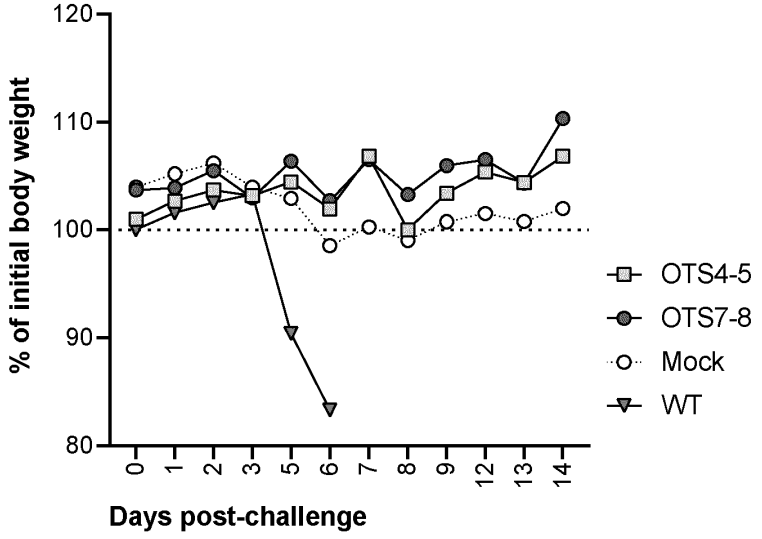
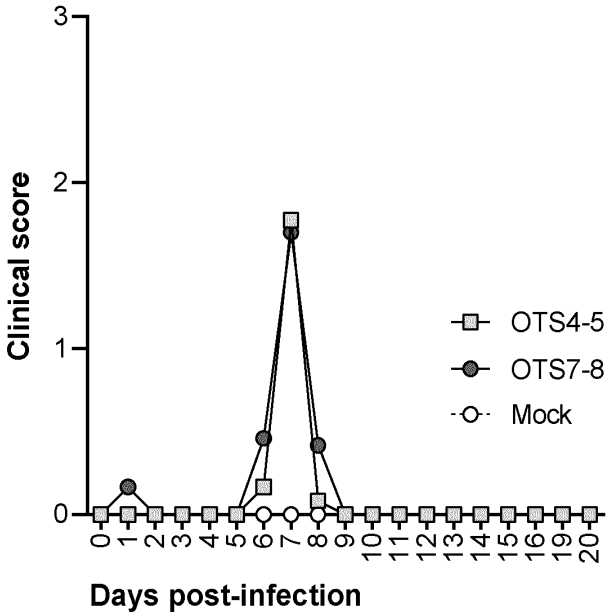


Figure 6 C, D

E



F

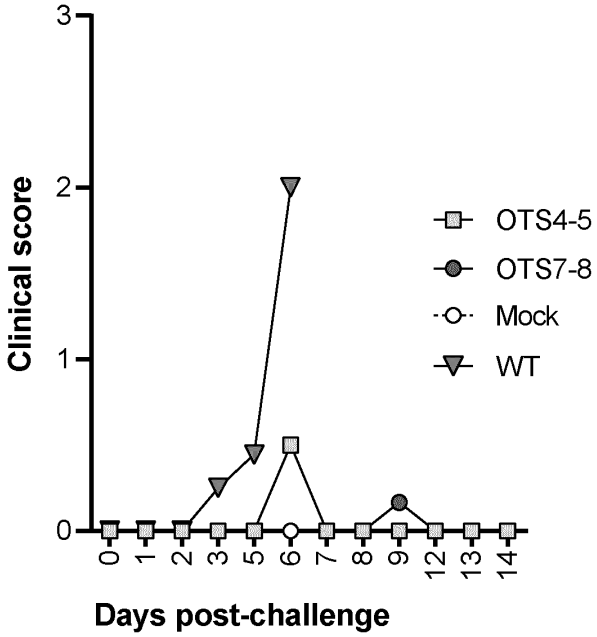
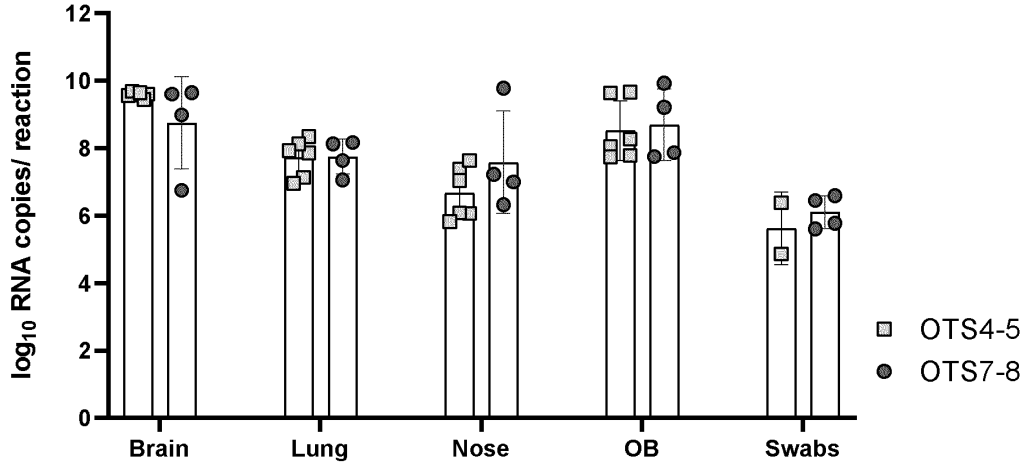


Figure 6 E, F

G



H

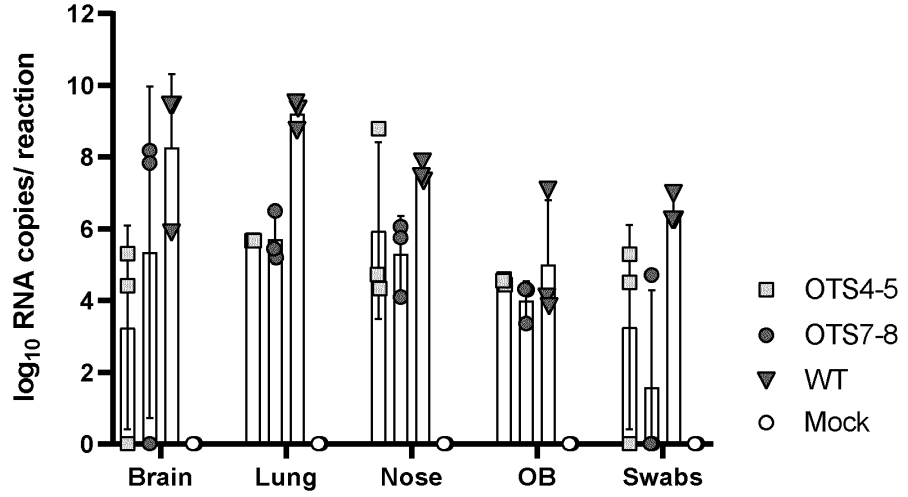
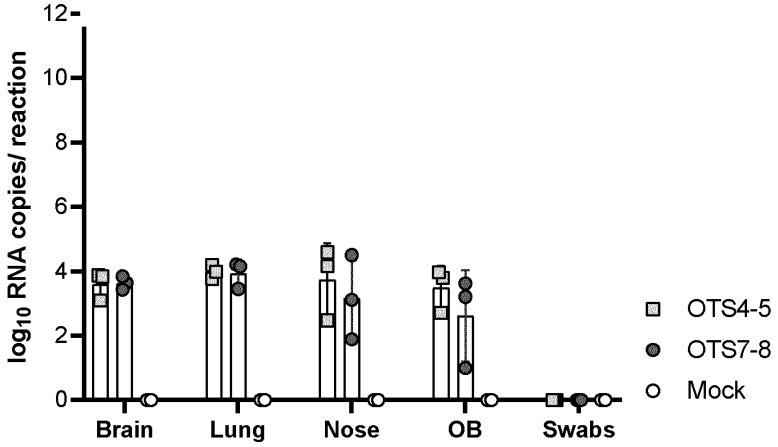


Figure 6 G, H

I



J

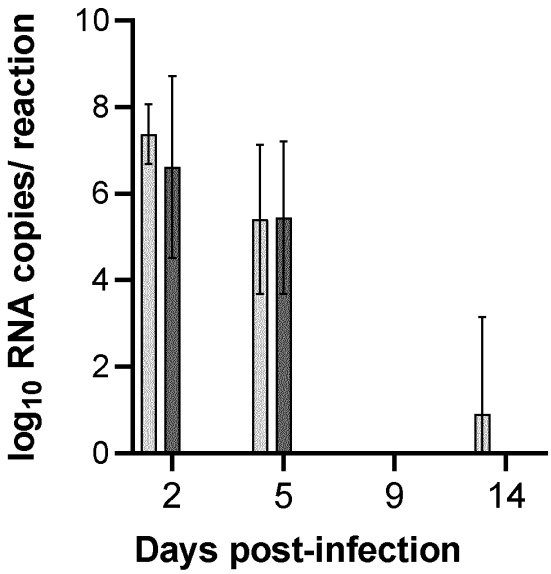
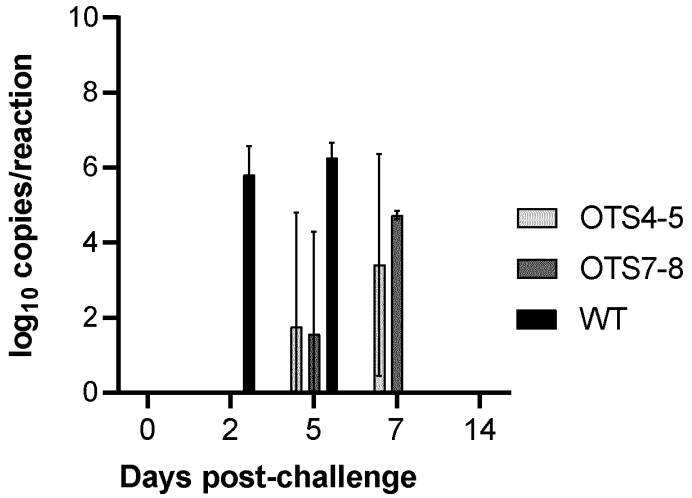
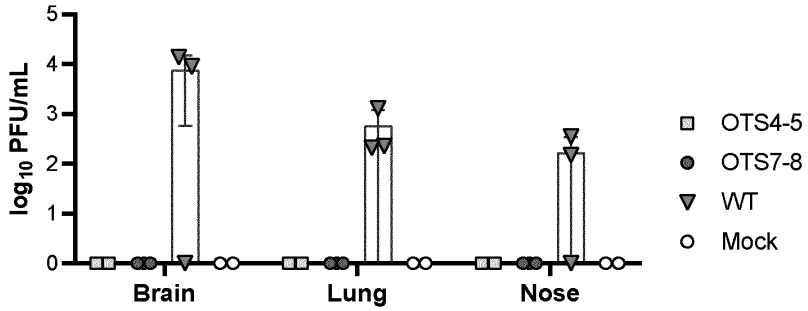


Figure 6 I, J

K



L



M

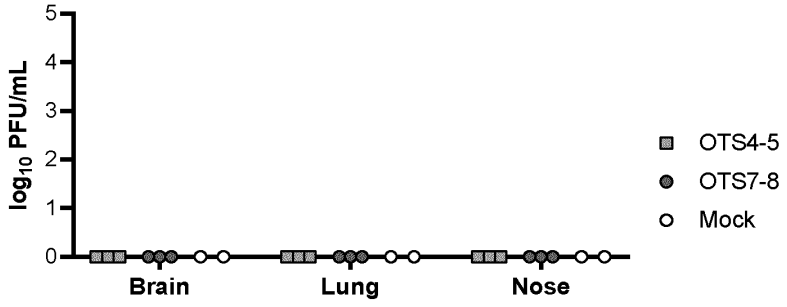
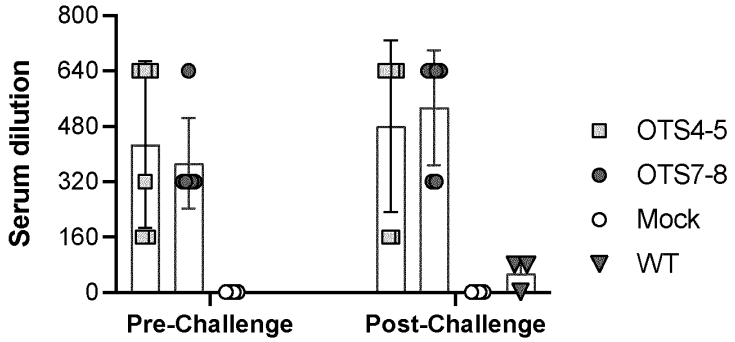
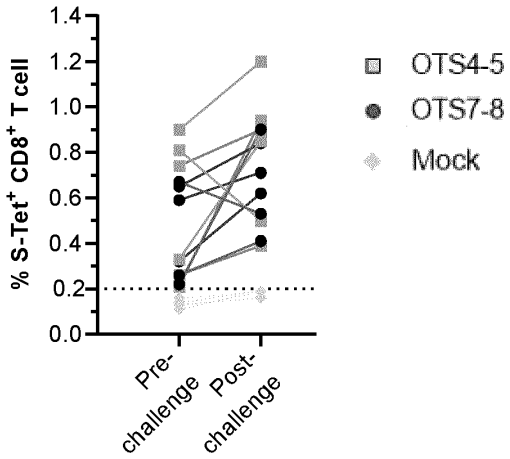


Figure 6 K, L, M

A



B



C

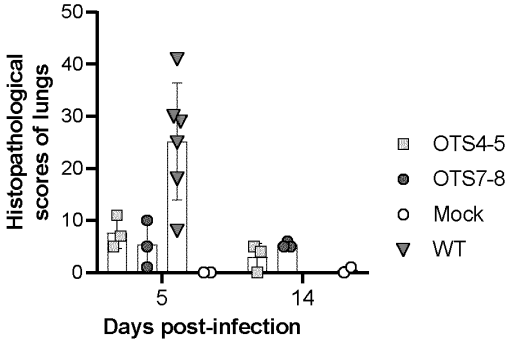
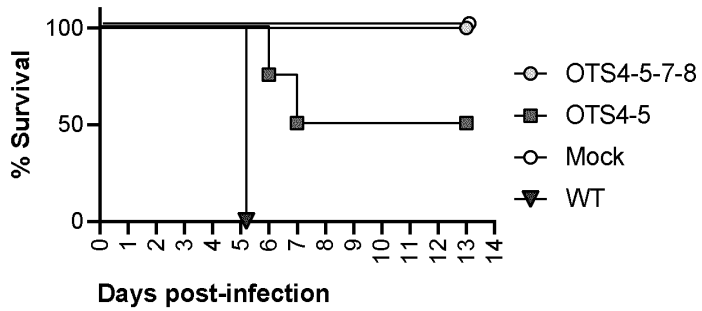


Figure 7 A, B, C

A



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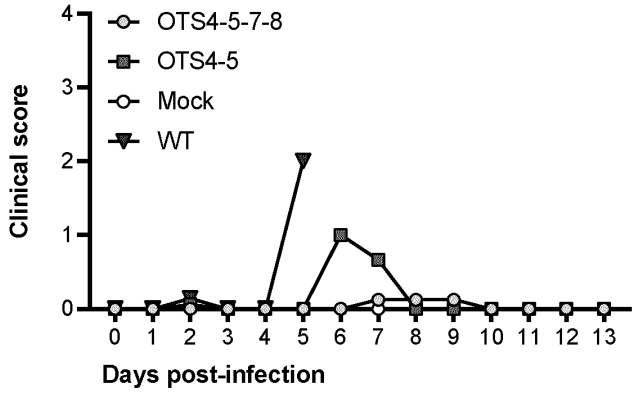


C

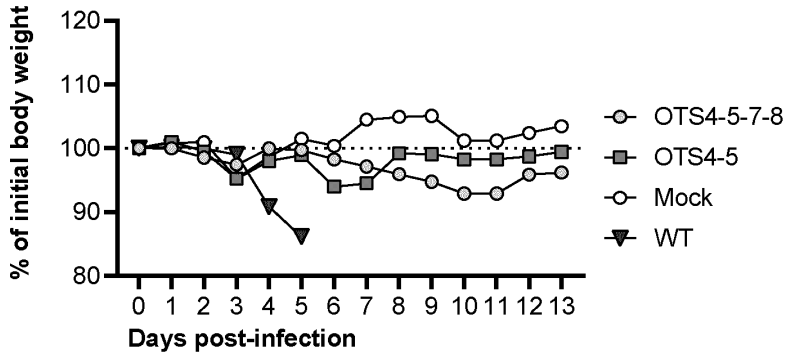
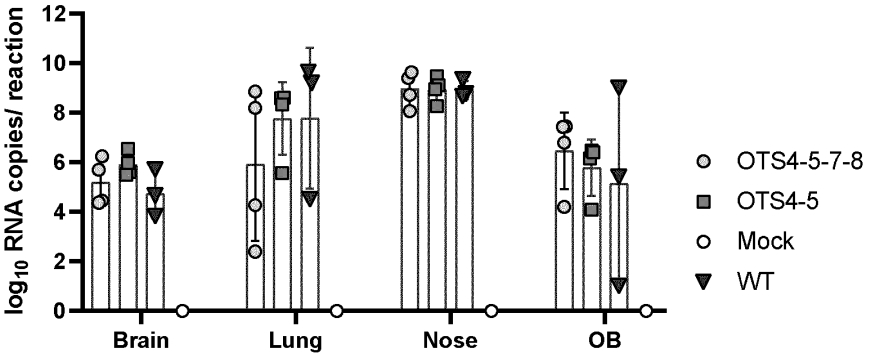


Figure 8 A, B, C

D

E



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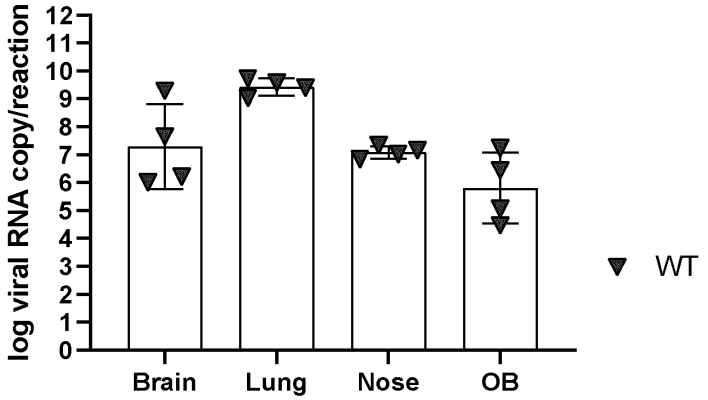
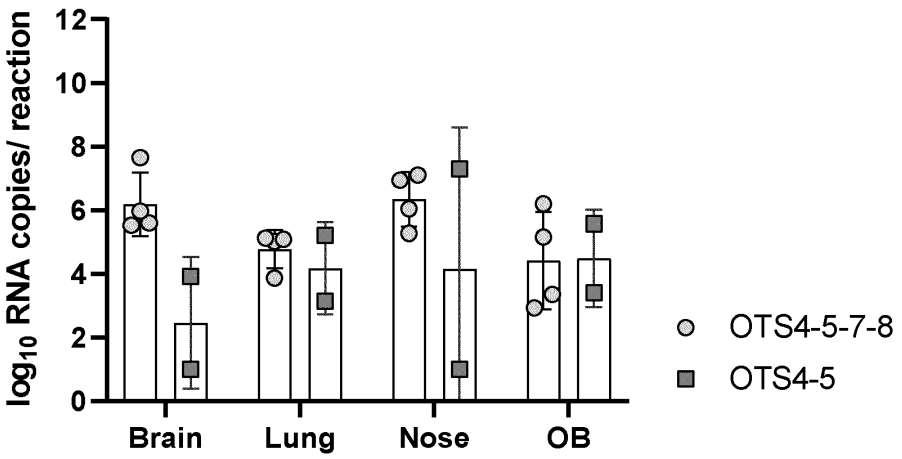


Figure 8 D, E, F

G



H

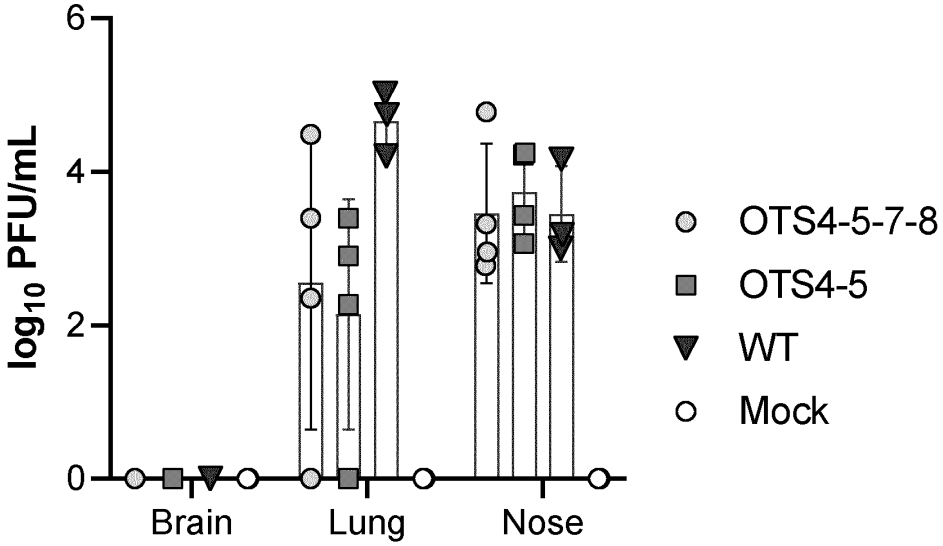
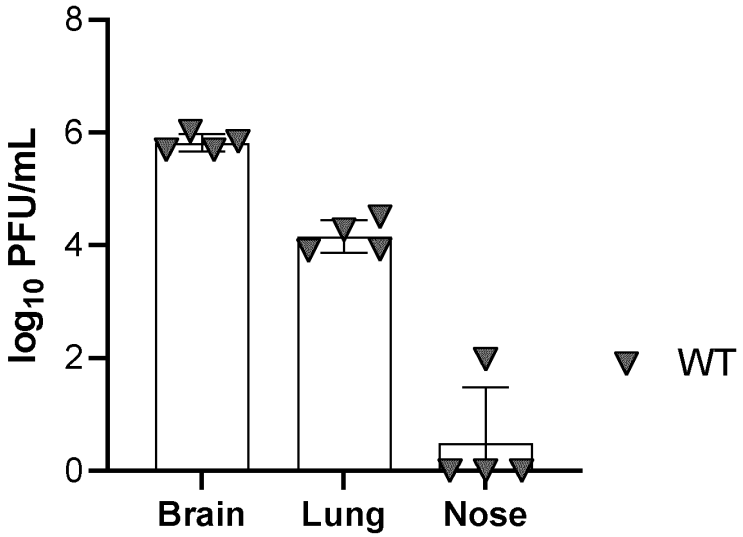


Figure 8 G, H

I



J

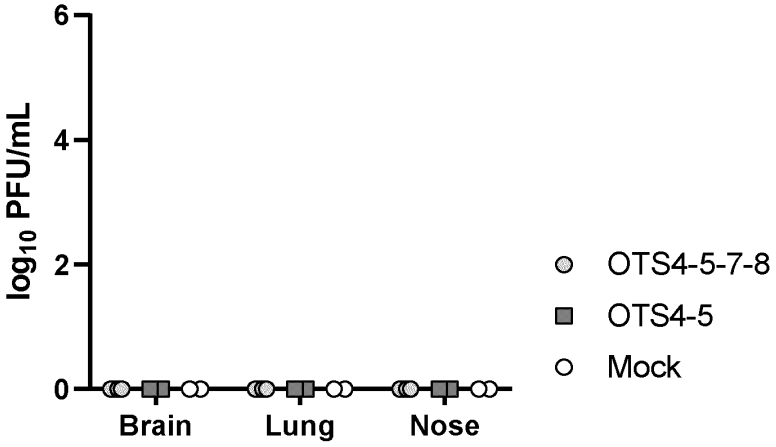
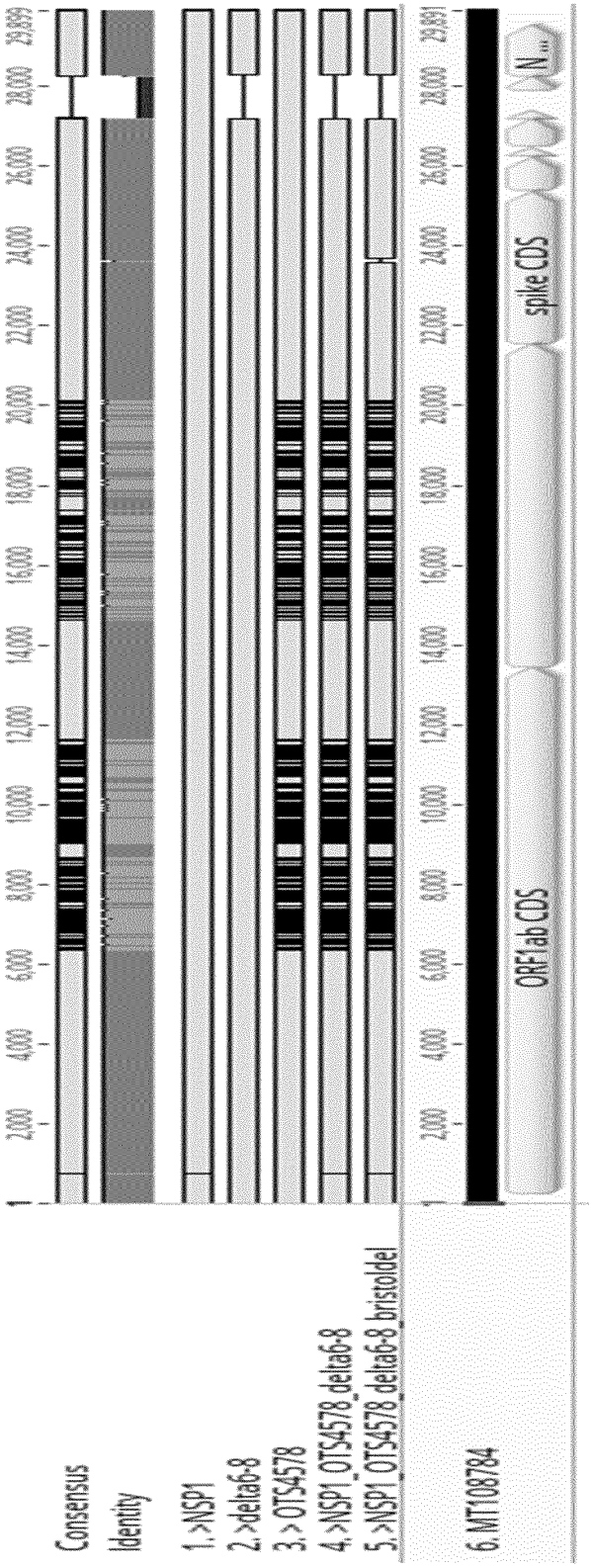


Figure 8 I, J


Consensus
Identity
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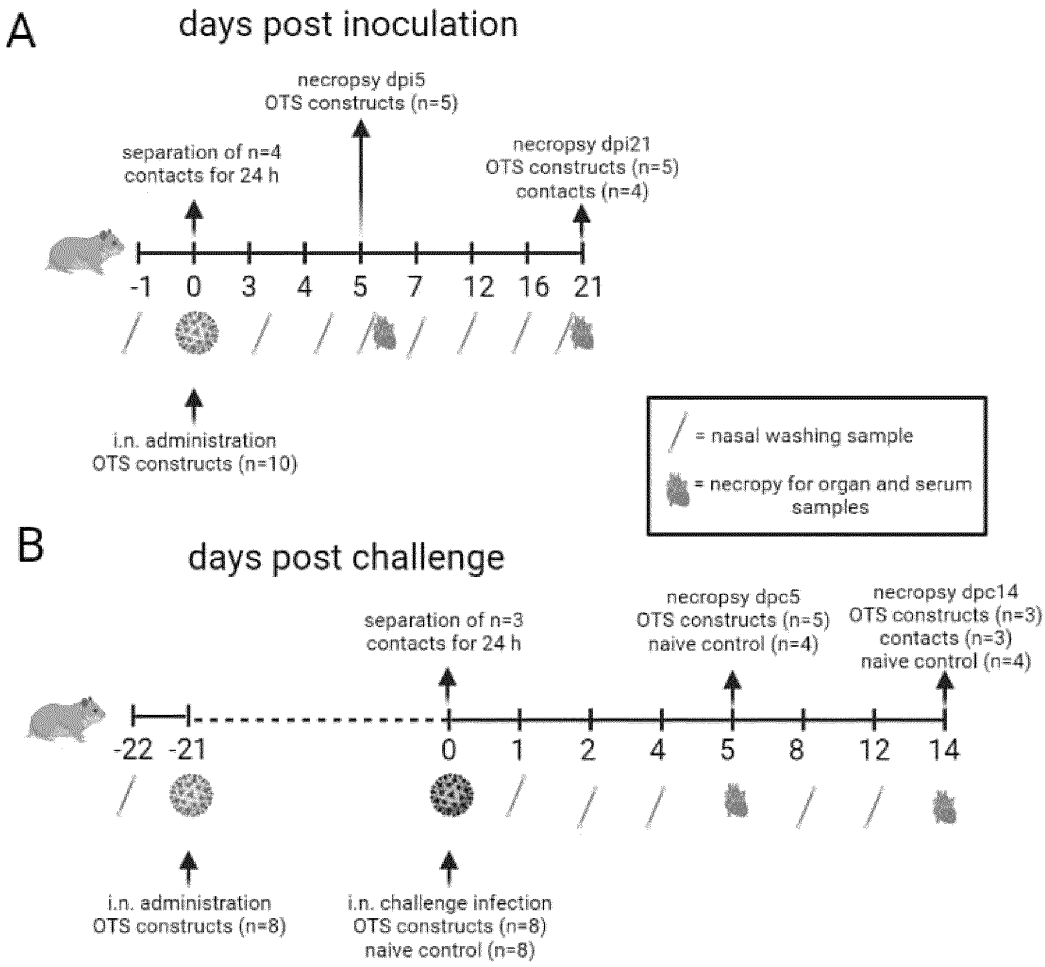
2, >delta6-8
3, >OTS4578
4, >NSP1_OTS4578_delta6-8
5, >NSP1_OTS4578_delta6-8_bristoldel
6, MT108784
ORF1ab CDS
spike CDS
N...

Figure 9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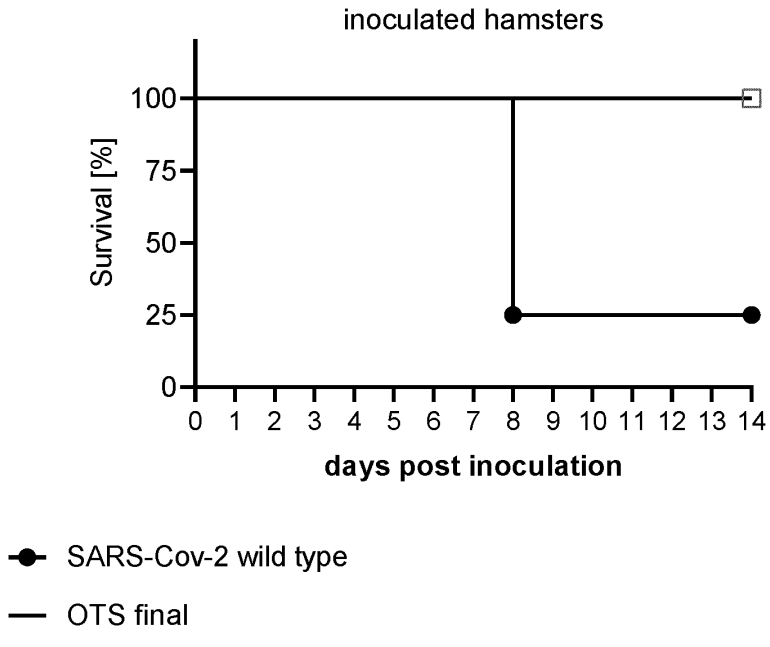
days post inoculation
necropsy dpi5
OTS constructs (n=5)
separation of n=4
contacts for 24 h
necropsy dpi21
OTS constructs (n=5)
contacts (n=4)
-1 0 3 4 5 7 12 16 21
i.n. administration
OTS constructs (n=10)
= nasal washing sample
= necropy for organ and serum samples
B
days post challenge
separation of n=3
contacts for 24 h
necropsy dpc5
OTS constructs (n=5)
naive control (n=4)
necropsy dpc14
OTS constructs (n=3)
contacts (n=3)
naive control (n=4)
-22 -21 0 1 2 4 5 8 12 14
i.n. administration
OTS constructs (n=8)
i.n. challenge infection
OTS constructs (n=8)
naive control (n=8)

Figure 10 A, B

A



B

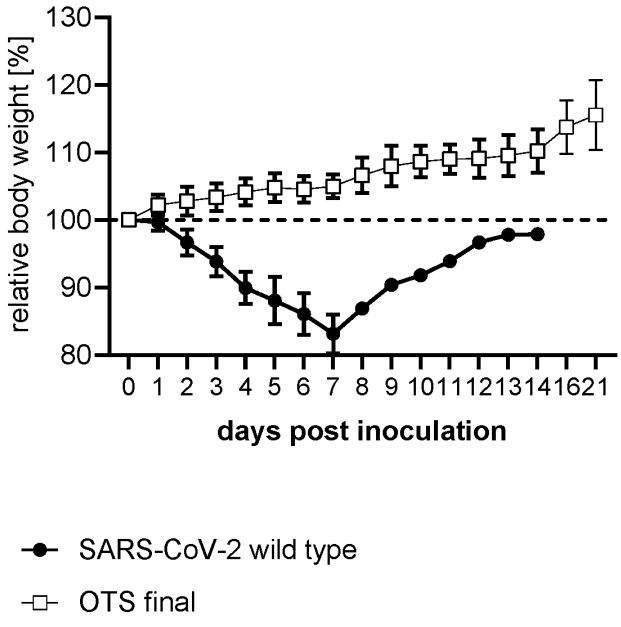
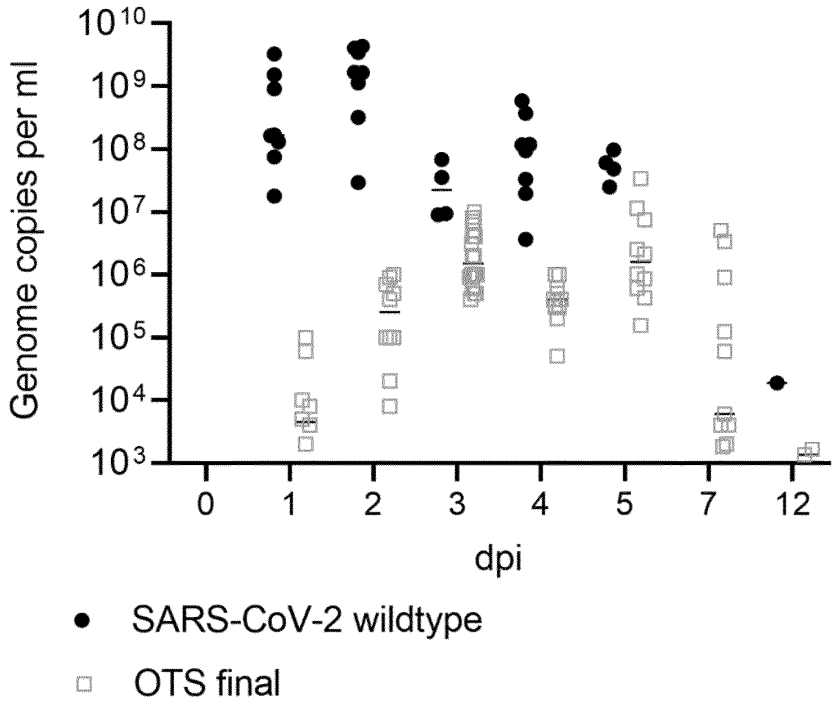


Figure 11 A, B


Genome copies per ml
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10^{5}
10^{4}
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2
3
4
5
7
12
dpi
SARS-CoV-2 wildtype
OTS final

Figure 12

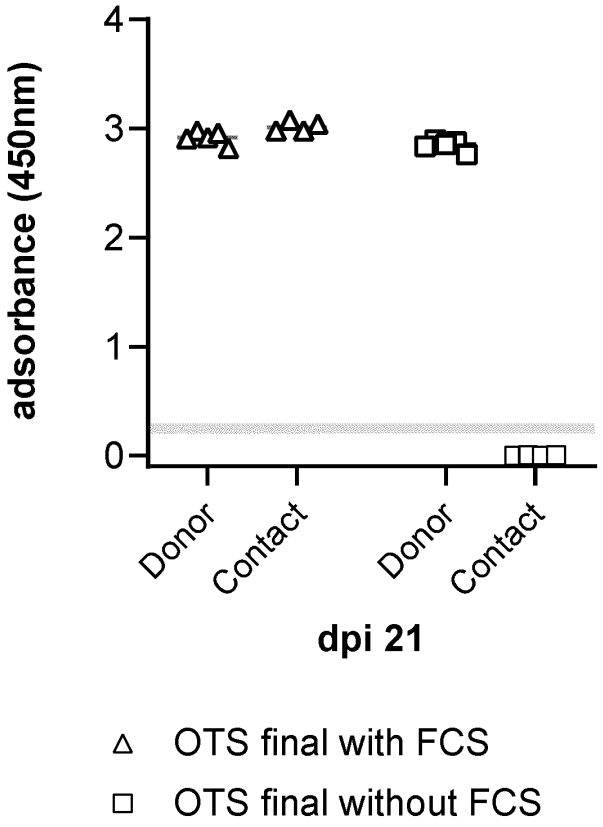


Figure 13

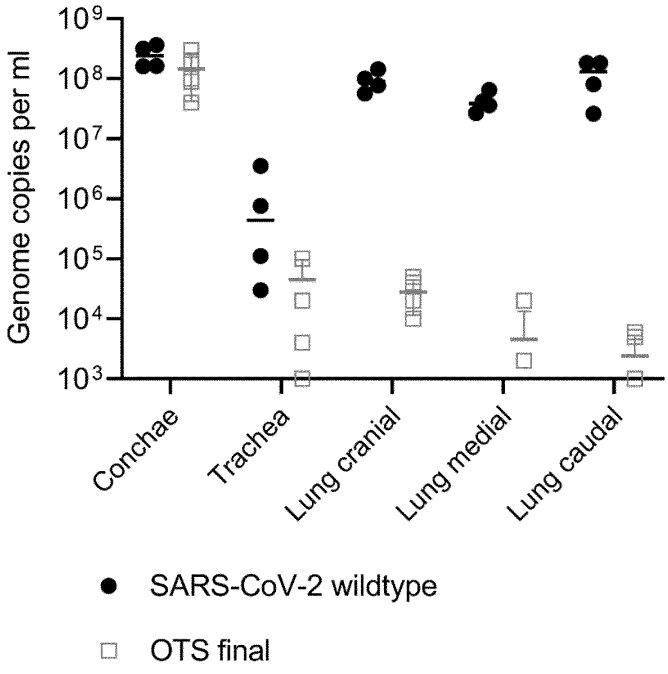


Figure 14

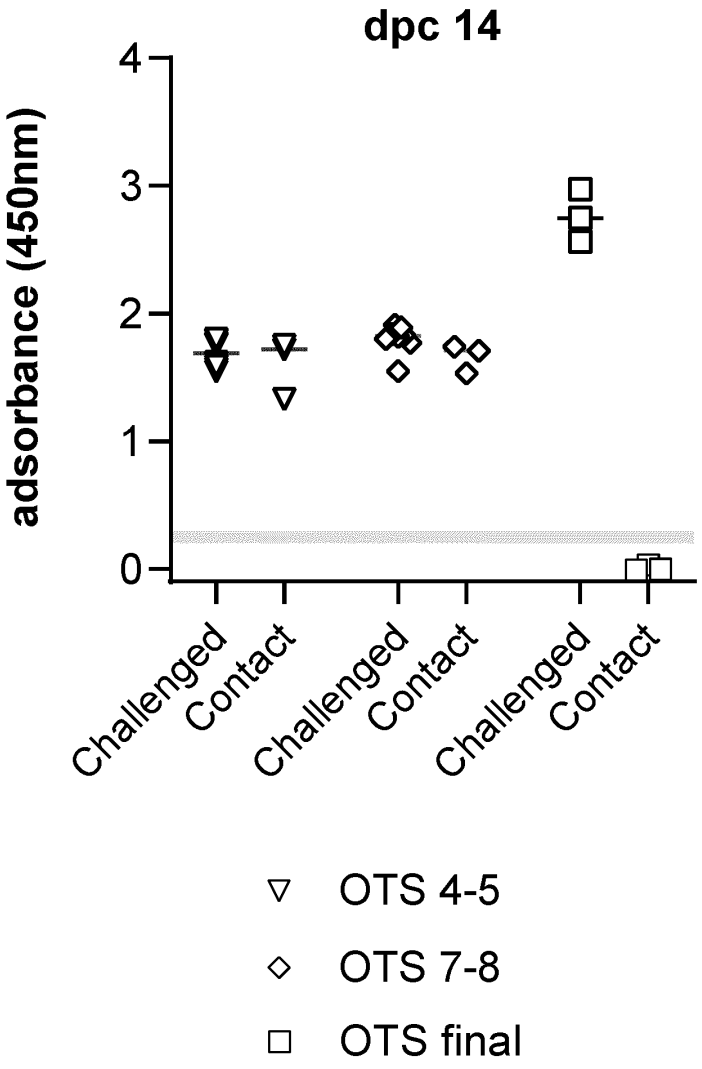
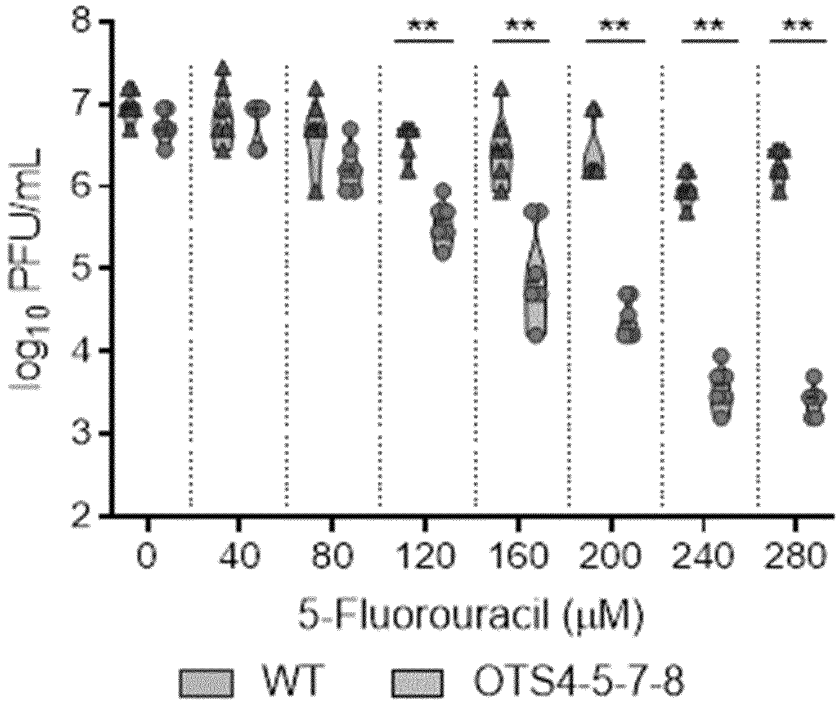

dpc 14
adsorbance (450nm)
4
3
2
1
0
Challenged
Contact
Challenged
Contact
Challenged
Contact
OTS 4-5
OTS 7-8
OTS final

Figure 15

A



B

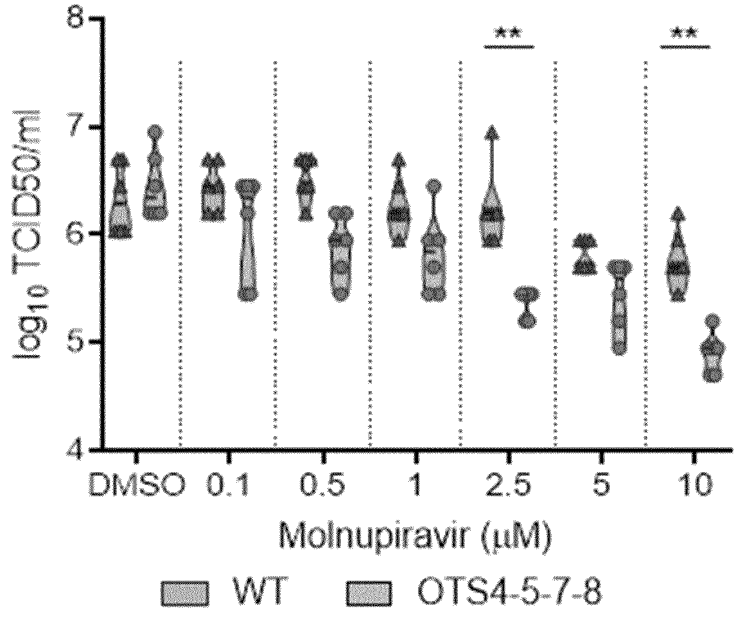


Figure 16 A, B

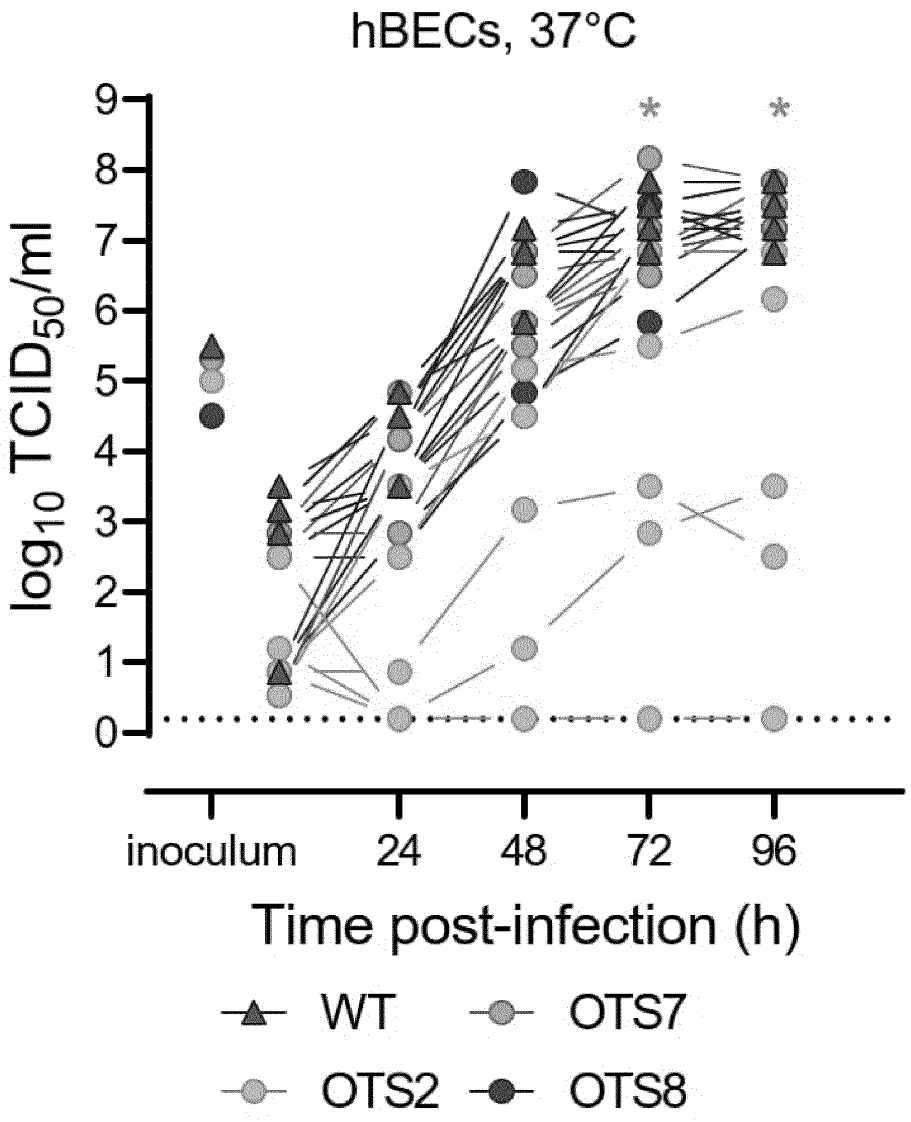
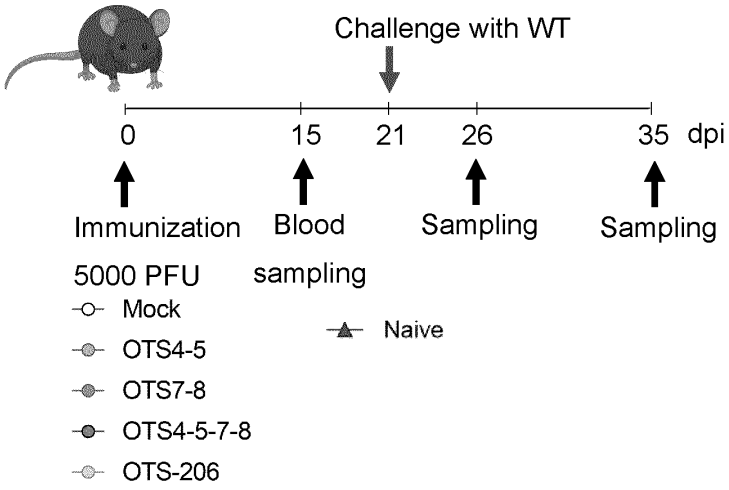
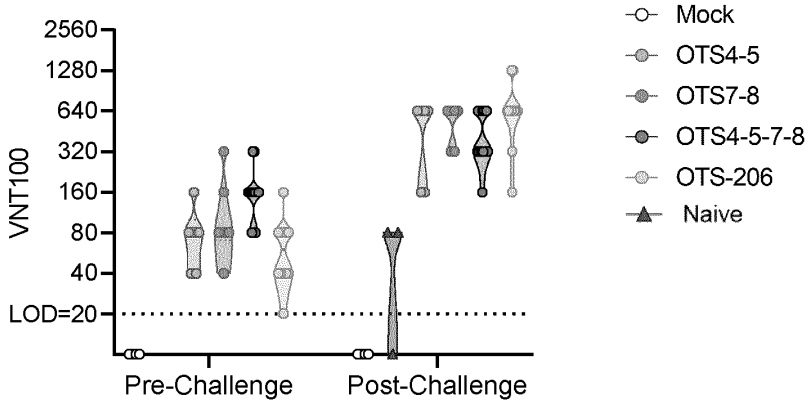

hBECs, 37°C
log10 TCID50/ml
0
1
2
3
4
5
6
7
8
9
*
*
inoculum
24
48
72
96
Time post-infection (h)
WT
OTS7
OTS2
OTS8

Figure 17

A



B



C

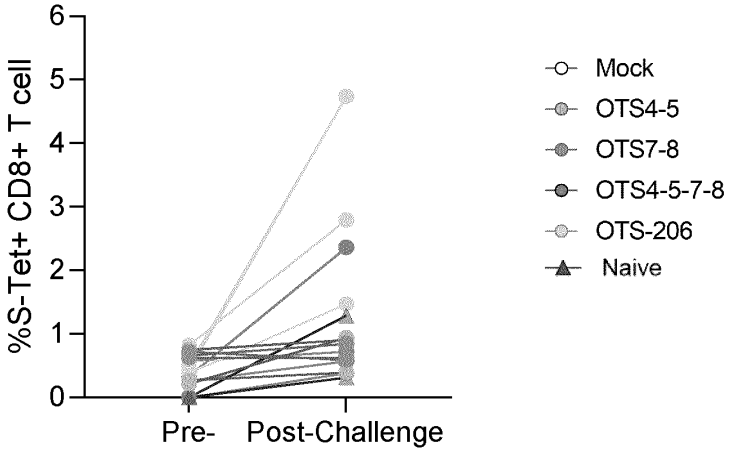


Figure 18 A, B, C