## CAG-hACE2-IRES-Luc-Tg

Nomenclature

Cat. NO.
Strain State

C57BL/6Smoc-Tgtn(CAG-human ACE2-IRES-Luciferase-WPREpolyA)Smoc

NM-TG-200002
Repository Live

## Gene Summary

| Gene Symbol | Synonyms | ACEH |
| :--- | :--- | :--- |
| NCBI ID | 59272 |  |
| MGI ID | $\underline{\text { Null }}$ |  |
| Ensembl ID | ENSG00000130234 |  |
|  | Human Ortholog | ACE2 |
|  |  |  |

## Model Description

The transgene is composed of a CAG-human ACE2-IRES-Luciferase-WPRE-polyA expression cassette under the control of CAG promter.
Research Application: corona virus related research
*Literature published using this strain should indicate: CAG-hACE2-IRES-Luc-Tg mice (Cat. NO. NM-TG-200002) were purchased from Shanghai Model Organisms Center, Inc..

## Validation Data

## WT hACE2



Figure 1.DLuciferase expression of the CAG-hACE2-IRES-Luciferase transgenic mice.

$$
\mathrm{M} \frac{\text { Heart }}{+-} \frac{\text { Liver }}{+-} \frac{\text { Spleen }}{+-} \frac{\text { Lung }}{+-} \frac{\text { Kidney }}{+-} \frac{\text { Stomach }}{+-}
$$



Figure 2. Western blot analysis of ACE2 protein from the CAG-hACE2-IRES-Luciferase transgenic mice.


Figure 3. Virus titers in the lungs of hACE2 Tg mice after SARS-CoV-2 infection. Groups of hACE2 Tg mice and wild type mice were inoculated with the same dose of SARS-CoV-2, the result shows that hACE2 Tg mice were highly susceptible to SARS-CoV-2 infection.


Figure 4. Body weight change in hACE2 Tg mice after drug treatment.


Figure 5. The viral load in the lung tissues of hACE2 Tg mice after drug treatment.

## Publications

SARS-CoV-2 might transmit through the skin while the skin barrier function could be the mediator References: MED HYPOTHESES
$\underline{\text { hACE2 }}$ Fc-neutralization antibody cocktail provides synergistic protection against SARS-CoV-2 and its spike RBD variants
References: cell discovery

