

H11-K18-hACE2 strategy

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Project Overview



Project Name

hACE2

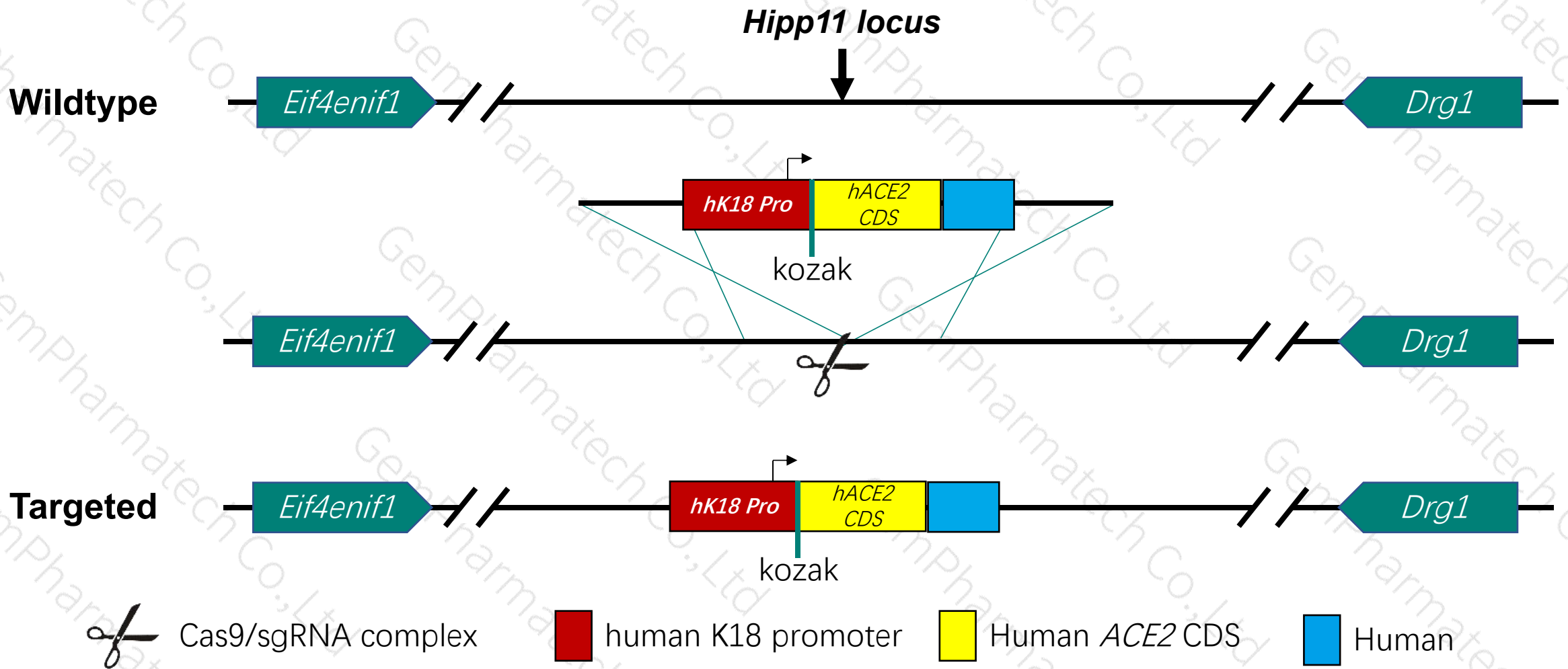
Project type

Cas9-KI

Strain background

C57BL/6JGpt

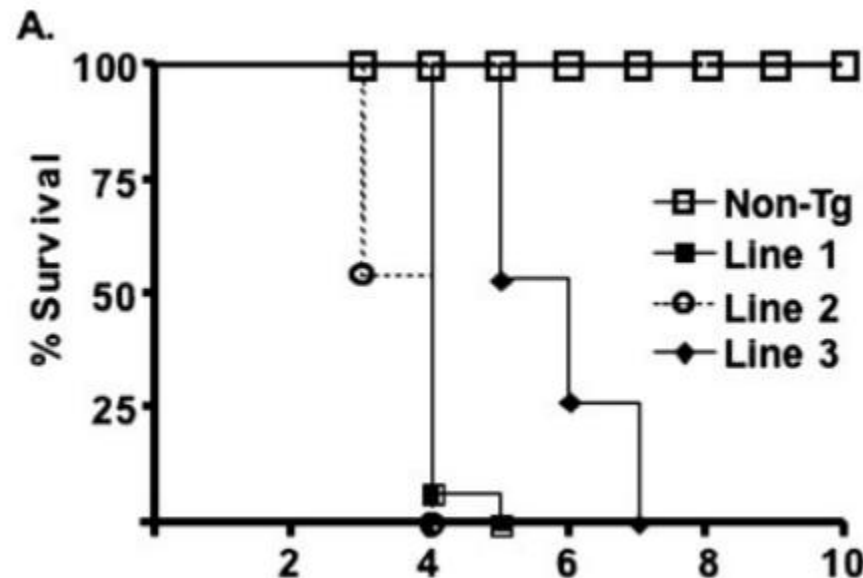
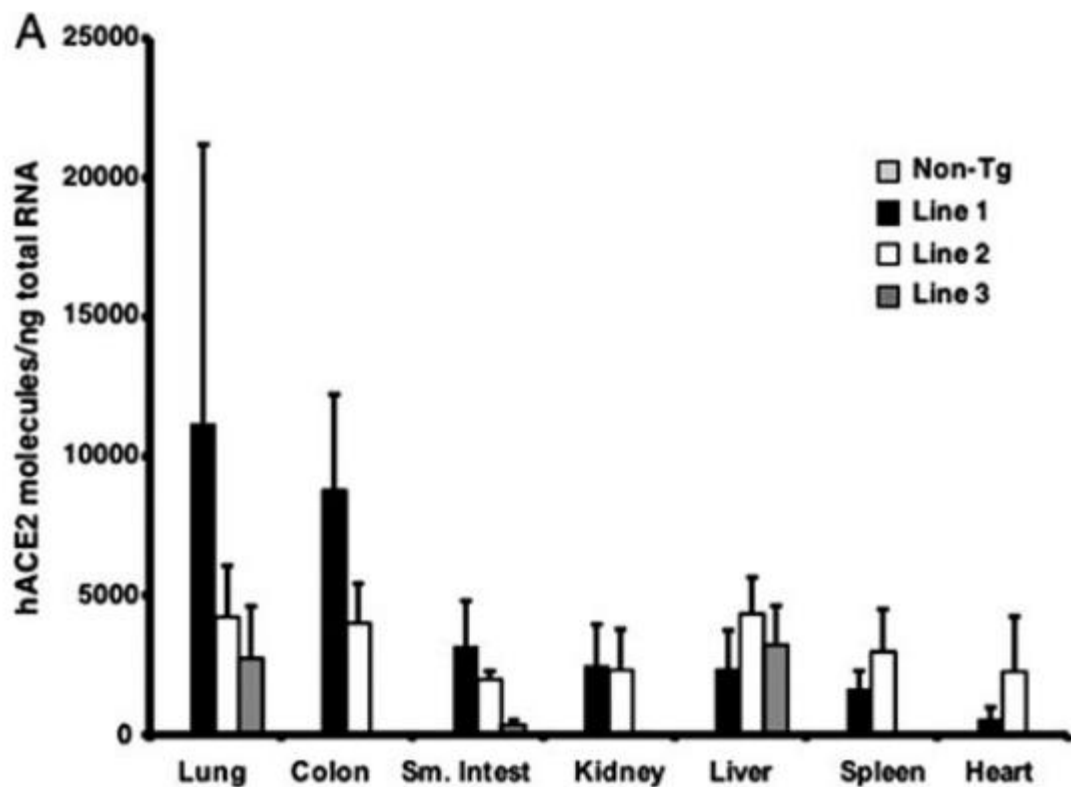
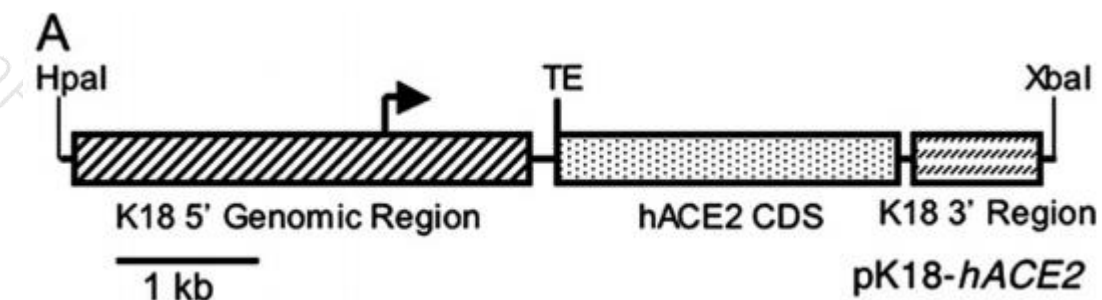
K18-hACE2 H11 KI model



K18-hACE2 H11 KI model

- Human *ACE2* coding sequence is used for generating the KI model.
- Human *K18* promoter (hK18Ep-intron1m-TE) and 3' fragment of the human *K18* gene are used to drive the epithelial cell specific expression of *hACE2*.
- Single copy *K18-hACE2* integration will be obtained by insertion of *K18-hACE2* element to *Hipp11* locus.

Existing model : *K18-hACE2* transgenic model

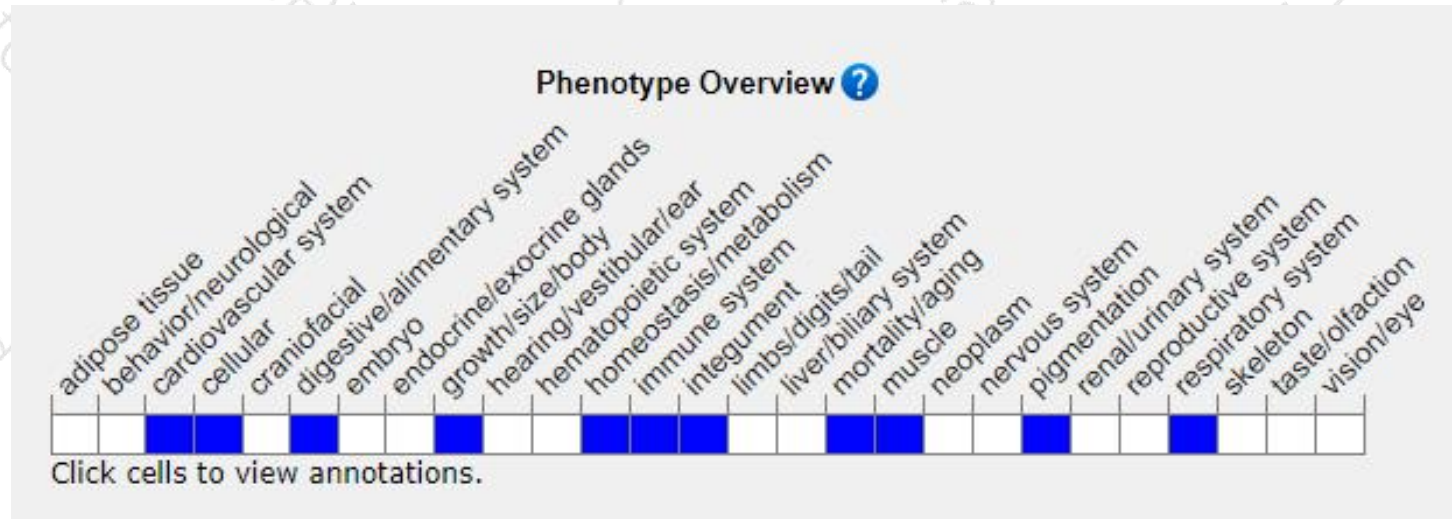


The *K18* promoter confers efficient transgene expression in airway epithelial cells (but not in alveolar epithelia), as well as in epithelia of other internal organs, including the liver, kidney, and gastrointestinal tract. Transgenic mice died by day 7 post SARS-CoV infection, and anti-SARS-CoV mAb treatment prevents clinical disease.

McCray PB Jr, *et al.*, J Virol. 2007.

MGI phenotype data/Lethality

Neither embryonic lethality nor early fatal postnatal development defects reported.



Targeted disruption of this locus results in reduced cardiac contractility. Male mice hemizygous for a knock-out allele exhibit increased susceptibility to induced colitis.

Source: <http://www.informatics.jax.org/marker/key/53988>

If you have any questions,
please feel free to contact us.



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