Mice harboring this mNF-H-cre transgene have nuclear localized Cre recombinase expression directed primarily to cortex and hippocampus neurons coinciding the late stages of brain development by the mouse neurofilament-H gene promoter. These mice may be useful in generating conditional knockouts for neurobiological, neurodevelopmental, neuromuscular, amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), or aging studies involving the neurons of the brain and spinal cord.

Donating Investigator
Ashok B Kulkarni, NIDCR NIH

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**GENETIC OVERVIEW**

**Tg(Nefh-cre)12Kul**

**Allele Type**
Transgenic (Recombinase-expressing)

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**RESEARCH APPLICATIONS**

Research Tools
Neurobiology Research
Reproductive Biology Research
Mice hemizygous for this mNF-H-cre transgene are viable and fertile, with nuclear localized-Cre recombinase expression directed to neurons, coinciding with late stages of brain development, by the mouse neurofilament-H gene (Nefh) promoter. The cre expression in neurons (but not astrocytes) of the brain and spinal cord is mosaic with highest expression in the cortex and hippocampus. Cre recombinase activity begins around embryonic day (E)16.5-E18.5, with significantly robust activity observed after one week of age. The donating investigator reports that mNFHcre mouse line 12 homozygotes develop a neurological phenotype with seizures and become infertile and moribund. When bred with mice containing a loxP-flanked sequence, Cre-mediated recombination will result in deletion of the floxed sequences in the resulting offspring.
Genotyping Protocols
Probe: Generic Cre Probe
Standard PCR: Tg(Nefh-cre)12Kul
Standard PCR: Generic Cre Melt Curve Analysis
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, hemizygous mice may be bred together, to noncarrier (wildtype) siblings, or to FVB/NJ inbred mice (Stock No. 001800). The donating investigator reports that homozygous mice develop a neurological phenotype with seizures and become infertile and moribund.

Additional Breeding and Husbandry Support

Citation
When using the STOCK Tg(Nefh-cre)12Kul/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #009102 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability

Cryo Recovery
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Cryo Recovery - Domestic Pricing

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<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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<tr>
<td>Cryo Recovery</td>
<td>Hemizygous or non carrier for Tg(Nefh-cre)12Kul</td>
<td>$2,854.50</td>
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