B6.FVB-Tg(Pomc-cre)1Lowl/J

Stock No: 010714

Congenic, Transgenic

Also Known As: B6.FVB-Tg(Pomc-cre)1Stl/J

The mouse pro-opiomelanocortin-alpha (Pomc) promoter drives expression of cre primarily in the granule cells of the dentate gyrus subregion of the hippocampus.

Donating Investigator

Bradford B. Lowell, Beth Israel Deaconess Med Ctr (Harvard)

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td></td>
<td>N13xN1F2</td>
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Tg(Pomc-cre)1Lowl

Allele Type

Transgenic (Recombinase-expressing)

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:
Details

Detailed Description

In this strain, the mouse pro-opiomelanocortin-alpha (Pomc) promoter drives expression of cre in the central nervous system, primarily the hippocampus. Cre expression is strongest and most restricted to the granule cells of the dentate gyrus subregion. Weaker, scattered expression can also be detected in other regions including the arcuate nucleus of the hypothalamus and the habenular nucleus. When crossed with a strain carrying a loxP-flanked genomic segment of interest, tissue-specific excision of that segment may be achieved.

In POMC-cre and loxP-flanked (floxed) strain intercrosses, using male cre animals is recommended. According to the donating investigator, passing the cre through the female germline can result in a high percentage of offspring that carry the recombined allele in all of their tissues. Such “leaky” Cre expression is reported in male POMC-cre mice also, but at a lower frequency (< 5%). The frequency of “leaky” expression in male POMC-cre mice, however, increases with the animal’s age.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(Pomc-cre)1Lowl

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Standard PCR: Generic Cre
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations
Although homozygotes are viable and fertile, when maintaining a live colony it is recommended that hemizygous males be bred to C57BL/6 (wildtype) females. In POMC-cre and loxP-flanked (floxed) strain intercrosses, using male cre animals is recommended. According to the donating investigator, passing the cre through the female germline can result in a high percentage of offspring that carry the recombined allele in all of their tissues. Such “leaky” Cre expression is reported in male POMC-cre mice also, but at a lower frequency (< 5%). The frequency of “leaky” expression in male POMC-cre mice, however, increases with the animal’s age.

Additional Breeding and Husbandry Support

Mating System
Noncarrier x Hemizygote

Citation
When using the B6.FVB-Tg(Pomc-cre)1Lowl/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #010714 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

FG29 (Standard)

Pricing & Availability

3–6 week average lead time depending on quantity and age requests are not accepted

Repository Live

Domestic
International

Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<td>Approx 4–8 weeks</td>
<td>Female</td>
<td>Hemizygous for Tg(Pomc-cre)1Lowl</td>
<td>$271.00</td>
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<tbody>
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<td>Male</td>
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<td>Male</td>
<td>Noncarrier</td>
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</tbody>
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| Frozen Mouse Embryo | $2,595.00 per straw or vial |

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**Terms of Use**

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Phone: 207-288-6470  
Email: TechTran@jax.org

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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains