B6;129S6-Chat tm2(cre)Lowl/J

Stock No: 006410 | ChAT-ires-Cre, ChAT-ires-Cre::ftn-neo-ftn

Targeted Mutation

PLACE ORDER
0–2 week average lead time for 10 or more mice with age range

Also Known As: ChAT-ires-Cre, ChAT-ires-Cre::ftn-neo-ftn

ChAT-ires-Cre knock-in mice express Cre recombinase in cholinergic neurons, without disrupting endogenous Chat expression. These mice may be useful in neurobiological research of motor function, learning and memory, Alzheimer’s disease, and Down syndrome, as well as obesity and diabetes research.

The Jackson Laboratory Repository has two ChAT-ires-Cre knock-in alleles from Dr. Bradford Lowell: ChAT-ires-Cre::ftn-neo-ftn (Chat tm2(cre)Lowl; Stock Nos. 006410/018957/028861) and ChAT-ires-Cre::neo (Chat tm1(cre)Lowl; Stock No. 031661). The donating investigator reports that the presence of the neo cassette may result in ectopic Cre expression, and they have never observed any ectopic expression in their ChAT-ires-Cre::neo mice (January 2018).

Donating Investigator
Bradford B. Lowell, Beth Israel Deaconess Med Cntr (Harvard)

READ MORE +

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<table>
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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Recombinase-expressing)</td>
<td>Chat</td>
<td>choline acetyltransferase</td>
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</tbody>
</table>

VIEW GENETICS

RESEARCH APPLICATIONS
Research Tools
Neurobiology Research
BASE PRICE
Starting at:
$277.00 Domestic price for female 4-week

VIEW PRICE LIST

Details

Detailed Description

The Jackson Laboratory Repository has two ChAT-ires-Cre knock-in alleles from Dr. Bradford Lowell (Beth Israel Deaconess Medical Center / Harvard): ChAT-ires-Cre::frt-neo-frt (Chat^{tm2[cre]lowl}; Stock Nos. 006410/018957/028861) and ChAT-ires-Cre::neo (Chat^{tm1[cre]lowl}; Stock No. 031661).

The donating investigator reports that the presence of the neo cassette may result in ectopic Cre expression, and they have never observed any ectopic expression in their ChAT-ires-Cre::neo mice (January 2018).

The strain description below summarizes the phenotype of ChAT-ires-Cre::frt-neo-frt mice (Chat^{tm2[cre]lowl}; Stock No. 006410).

Mice that are homozygous for the ChAT-ires-Cre::frt-neo-frt knock-in allele are viable and fertile. An "ires-Cre" sequence is inserted downstream of the stop codon such that cre expression is controlled by the endogenous Chat gene promoter. Chat gene expression, however, is unaffected. Cre recombinase activity is reported in all cholinergic neurons. These mice may be useful for "Cre-lox" technology applications in neurobiology, including studies of motor function, learning and memory, Alzheimer's disease, and Down syndrome, and in obesity and diabetes research.

View Cre expression characterization for ChAT-ires-Cre::frt-neo-frt allele (Chat^{tm2[cre]lowl}; Stock No. 006410).

Development

Expression Data

Control Suggestions

Selected References

Genetics

Chat^{tn2[cre]lowl}

Disease/Phenotype

Disease Terms
Genotyping Protocols
QPCR: **Generic Cre Quantitative PCR**
MELT: Chat^{tm2(cre)Lowl} Alternate1
Genotyping resources and troubleshooting

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

Breeding Considerations
When maintaining a live colony at The Jackson Laboratory Repository, homozygous mice may be bred together.
Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Citation
When using the Chat-ires-Cre, Chat-ires-Cre:frt-neo-frt mouse strain in a publication, please cite the originating article(s) and include JAX stock #006410 in your Materials and Methods section.

Animal Health Reports
facility Barrier Level Descriptions
AX10 (Standard)

Pricing & Availability
0–2 week average lead time for 10 or more mice with age range

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**Related Products and Services**

- Frozen Mouse Embryo $2,595.00 per straw or vial

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- General Terms and Conditions

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Email: TechTran@jax.org

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