Overview

Also Known As: ChAT-IRES-Cre, ChAT-IRES-Cre::frt-neo-frt

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::frt-neo-frt (Chat<sup>tm2(cre)Lowl</sup>, Stock Nos. 006410/018957/028861) and ChAT-IRES-Cre::Δneo (Chat<sup>tm1(cre)Lowl</sup>; Stock No. 031661). The donating investigator reports that the presence of the neo cassette may result in ectopic Cre expression,
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\textsuperscript{tm2(cre)Lowl}; Stock Nos. 006410/018957/028861) and ChAT-IRES-Cre::\textDelta neo (Chat\textsuperscript{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::\textDelta neo mice (January 2018).
The strain description below summarizes the phenotype of ChAT-IRES-Cre::frt-neo-frt mice (Chat<sup>tm2(cre)Lowl</sup>; 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<sup>tm2(cre)Lowl</sup>; Stock No. 006410).

Genotyping Protocols
Standard PCR: Chat<sup>tm2(cre)Lowl</sup>

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
Related Products and Services

Frozen Mouse Embryo
B6;129S6-Chat<tm2(cre)Lowl>/J Frozen Embryo
$2595.00

Payment Terms and Conditions
Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

The Jackson Laboratory's Genotype Promise
The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized.

Animal Health Reports
Facility Barrier Level Descriptions

AX10 (Standard)

Pricing & Availability

Live mice available in varying quantities. Ask Customer Service for details.

Available Now

Live Mouse

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and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project.

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Terms of Use

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Licensing Information

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

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Related Strains

All

- By Allele
- By Gene
- By Collection

All Related Strains