Overview

Also Known As: Wnt1-Cre2

These Wnt1-Cre2 transgenic mice express Cre recombinase under the control of the mouse Wnt1, wingless-related MMTV integration site 1, promoter and enhancer, and have applications in studies of cell lineage tracing in the developing neural crest and midbrain.

Donating Investigator
GENETIC OVERVIEW

Genetic Background  Generation
N4+pN2F11 (2018-11-30 00:00:00)

E2f1 Tg(Wnt1-cre)2Sor

Allele Type
Transgenic (Recombinase-expressing, Null/Knockout)

RESEARCH APPLICATIONS
Research Tools
Neurobiology Research
Cancer Research

BASE PRICE
Starting at:

$278.00 Domestic price for female
356.51 Domestic price for breeder pair

Details

Detailed Description

These Wnt1-Cre2 transgenic mice express Cre recombinase under the control of the mouse Wnt1, wingless-related MMTV integration site 1, promoter and enhancer. The transgene integrated into chromosome 2 causing a 257 bp deletion and a 45 Kb inverted segment in exon 5 of the E2f1 (E2F transcription factor 1) gene. The inversion contains all of exon 5, but deletes 23 Kb including exons 6 and 7. The deletion results in a functional knock-out of E2f1 in homozygous mice. Cre recombinase activity is detected in both the cardiac and cranial neural crest, specifically in the branchial arches and cardiac outflow tract. When Wnt1-Cre2 transgenic mice are bred to mice containing loxP site-flanked sequences, cre-mediated recombination results in deletion of the floxed sequences in the midbrain and developing neural tube of the resulting offspring. Of note, these Wnt1-cre2 transgenic mice do not exhibit the ectopic transgene expression
or midbrain enlargement observed in Stock no. 003829 mice. During backcrossing, the Y chromosome has been fixed to the 129S4 genetic background.

Of note: The donating investigator has reported evidence of Cre recombinase activity in both male and female germlines. The frequency of this germ line recombination appears to be modified by genetic background. We will modify the strain description if necessary as published results become available.

Genotyping Protocols
High Resolution Melting: Tg(Wnt1-cre)
Genotyping resources and troubleshooting

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

Breeding Considerations
When maintaining a live colony, hemizygous mice may be bred together, to wildtype siblings, or to 129S4/SvJaeJ inbred mice (Stock No. 009104). At present, the Donating Investigator is attempting to make the strain homozygous, and testing fertility in homozygotes. The Donating Investigator anticipates that it will be possible to maintain the strain as homozygotes.

Additional Breeding and Husbandry Support
Mating System
Noncarrier x Hemizygote
Hemizygote x Noncarrier
**Pricing & Availability**

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

### Domestic

#### Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Hemizygous for E2f1&lt;sup&gt;TgIwnt1-creI255or&lt;/sup&gt;</td>
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### International

#### Breeder Pair

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### Related Products and Services

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

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**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 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.

**Terms Of Use**

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### Related Strains

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