B6.Cg-Tg(Ins2-cre)25Mgn/J

Stock No: 003573 | Rip-cre

Congenic, Transgenic

AVAILABLE

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

Overview

Also Known As: Rip-cre

The RIP-Cre transgene has a 668 bp fragment of the rat insulin II promoter, nuclear-localized Cre recombinase, and a 2.1 kbp fragment from the human growth hormone gene. These RIP-Cre transgenic mice are a Cre-lox tool useful for deletion of floxed sequences in pancreatic beta cells.

Donating Investigator

Mark A. Magnuson, Vanderbilt University School of Medicine
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<td>N13F40</td>
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**Tg(Ins2-cre)25Mgn**

**Allele Type**

Transgenic (Recombinase-expressing)

VIEW GENETICS

**RESEARCH APPLICATIONS**

Research Tools

Diabetes and Obesity Research

VIEW ALL RESEARCH APPLICATIONS

**BASE PRICE**

Starting at:

$255.00 Domestic price for female

VIEW PRICE LIST

**Details**

**Detailed Description**

This strain carries the "RIP-Cre" transgene construct (containing a 668 bp fragment of the rat insulin II promoter, Cre recombinase with a nuclear localization sequence, and a 2.1 kb fragment from the human growth hormone gene). Hemizygous mice carrying this transgene are phenotypically normal and overexpress Cre specifically in pancreatic beta cells. This transgene strain is used in combination with mice carrying floxed targeted mutations to create various pancreatic beta cell-specific gene knockouts using the "Cre-lox" system. Results from several different laboratories have shown that this transgenic strain is at least 85% efficient in achieving pancreatic beta cell-specific recombination. It should also be noted that the transgene in this line has been found to be expressed at a low level in the hypothalamus. In some cases this has resulted in a phenotype due to deletion of the floxed allele in this region of the brain. It has also been shown that these transgenic mice may spontaneously develop glucose intolerance and impaired insulin secretion developing at 6-8 weeks of age. It is recommended that users include naive "RIP-Cre" mice (i.e., those not bred to a floxed mutant) among the controls used in experiments.

**Development**

**Expression Data**

**Control Suggestions**
Genotyping Protocols
QPCR: Generic Cre Quantitative PCR
MELT: Tg(Ins2)
Standard PCR: Generic Cre
Genotyping resources and troubleshooting

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

Breeding Considerations
When maintaining a live colony, these mice may be bred as homozygotes. Expected coat color from breeding is Black.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Citation
When using the B6;Cg-Ros/Cre mouse strain in a publication, please cite the originating article(s) and include JAX stock #003573 in your Materials and Methods section.

Pricing & Availability
Live mice available in varying quantities. Ask Customer Service for details.
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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains