B6.Cg-Tg(Lck-cre)548Jxm/J

Stock No: 003802

Congenic, Transgenic

AVAILABLE FOR PRE-ORDER

PRE-ORDER NOW

Estimated to begin distribution on Mar 30, 2020
This transgenic strain expresses Cre under the control of the Lck (lymphocyte protein tyrosine kinase) promoter, enabling thymocyte-specific excision ofloxP-flanked sequences of interest. The Lck gene is primarily expressed by T lymphocytes and it plays a key role in the selection and maturation of developing T-cells in the thymus and in the activity of mature T-cells.

Donating Investigator

Jamey D Marth, Burnham Inst at Univ Calif Santa Barbara
**Details**

**Detailed Description**

This transgenic strain expresses Cre under the control of the Lck (lymphocyte protein tyrosine kinase) promoter, enabling thymocyte-specific excision of loxP-flanked sequences of interest. Homozygous mice are viable and have no major defects.

When crossed with floxed Galnt13 mice (see Stock No. 006896), excision occurs at high efficiency in thymocytes. Splenic CD4⁺ T cells show excision at somewhat lower rates (66-83%).

The Lck gene is primarily expressed by T lymphocytes where it phosphorylates tyrosine residues of proteins involved with intracellular signaling pathways. Associating with CD4 and CD8, LCK is part of a cascade of responses to antigen that control the proliferation and activation of T cells. It plays a key role in the selection and maturation of developing T-cells in the thymus and in the activity of mature T-cells.

[View cre expression characterization.]

**Development**

**Expression Data**

**Control Suggestions**

**Selected References**

**Genetics**

**Tg(Lck-cre)548Jxm**

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**
Genotyping Protocols
Standard PCR: Tg(Lck-cre)548Jxm
QPCR: Tg(Lck-cre)548Jxm-qPCR

Genotyping resources and troubleshooting

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

Mating System
Hemizygote x Noncarrier
Noncarrier x Hemizygote

Citation
When using the B6.Cg-Tg(Lck-cre)548Jxm/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #003802 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

Pricing & Availability
Estimated to begin distribution on Mar 30, 2020

Domestic
Pricing effective for USA, Canada and Mexico shipping destinations

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<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<td>Approx 4-8 weeks</td>
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Breeder Pair

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Frozen Mouse Embryo

**B6.Cg-Tg(Lck-cre)548Jxm/J Frozen Embryos**

$2595.00

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