

B6N.1297-*Ltc4s*^{tm1Blam}/J

Stock No: **030813** | LTC₄S^{-/-}

 Congenic, Targeted Mutation

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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as reduced antigen-induced pulmonary inflammation and bleomycin-induced pulmonary fibrosis.

Donating Investigator

Yoshihide Kanaoka, Brigham and Women's Hospital

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GENETIC OVERVIEW

Genetic Background

Generation

Ltc4s^{tm1Blam}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Ltc4s

Gene Name

leukotriene C4 synthase

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W P R I C E L I S T

Details

Detailed Description

Ltc4s (leukotriene C4 synthase) is the terminal 5-lipoxygenase pathway enzyme that is responsible for the biosynthesis of cysteinyl leukotrienes. Cysteinyl leukotrienes are potent lipid mediators of tissue inflammation, particularly implicated in allergic and asthmatic diseases.

These mice carry a targeted knock-out of the mouse gene in which exons 2-4 were replaced with a neomycin cassette in reverse transcriptional orientation. LTC4S activity, assessed by conjugation of leukotriene (LT) A4 methyl ester with glutathione, is absent from tongue, spleen, and brain and more than 90% reduced in lung, stomach, and colon. An unstable mRNA transcript involving exon 5 and presumably the neomycin gene is detectable. Bone marrow-derived mast cells from the mice do not generate LTC4 in response to IgE-dependent activation.

Homozygous knock-out mice (which are viable, fertile, and without apparent abnormalities) show reduced vascular permeabilities induced by zymosan and IgE crosslinking. They also show reduced antigen-induced pulmonary inflammation and bleomycin-induced pulmonary fibrosis.

The phenotype of this C57BL/6N background strain is reported to be the same as that of the BALB/c genetic background line (see Stock No. [030959](#)).

Development

Control Suggestions

Selected References

Genetics

Ltc4s^{tm1Blam}

Disease/Phenotype

Disease Terms

[+ Research Areas By Phenotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

[- Technical Support](#)

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

Standard PCR:[Ltc4s](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygotes and heterozygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Citation

When using the LTC₄S⁻ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #030813 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)

[- Pricing & Availability](#)



Cryo
Recovery

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Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

Cryorecovery - Domestic Pricing

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Ltc4s<tm1Blam>	\$2,854.50

Related Products and Services

Frozen Mouse Embryo

B6N.1297-Ltc4s<tm1Blam>/J

\$2595.00

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