



# C . F V ~~B7-0 0 0 1 6 L 2 1 R T K~~ (Max-TRECP)57Lan / J

Stock No: 004512

Congenic, Transgenic



CRYORECOVERY

## PLACE ORDER

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

## Overview

CD11c-DTR/GFP transgenic line 57 has the CD11c promoter (*Ilgax*) directing expression of a diphtheria toxin receptor - enhanced green fluorescent protein (DTR/EGFP) fusion protein to dendritic cell populations. Administration of diphtheria toxin results in depletion of dendritic cell populations. CD11c-DTR/GFP transgenic mice are useful in studies of mononuclear phagocyte origins and the specific role of dendritic cells in the immune response.

In [Goodwin \*et al.\* 2019 Genome Res. 29:494](#), it was discovered that line 57 has more than 20 copies of the CD11c-DTR/GFP transgene inserted into the *1700016L21Rik* locus on chromosome 1 (80448681-80455738 bp [Build GRCm38/mm10]).

### Donating Investigator

Dr. Dan R. Littman, New York University Medical Center

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## GENETIC OVERVIEW

Genetic Background      Generation

[1700016L21Rik<sup>Tg\(Ilgax-DTR/EGFP\)57Lan</sup>](#)

Allele Type

Transgenic (Inserted expressed sequence)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

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

CD11c-DTR/GFP transgenic line 57 has the CD11c promoter (*Itgax*) directing expression of a diphtheria toxin receptor - enhanced green fluorescent protein (DTR/EGFP) fusion protein to dendritic cell populations. Line 57 has more than 20 copies of the CD11c-DTR/GFP transgene inserted into the *1700016L21Rik* locus on chromosome 1 (80448681-80455738 bp [Build GRCm38/mm10]). Mice that are homozygous for the transgene are viable, normal in size and do not display any gross physical or behavioral abnormalities. Upon diphtheria toxin (DT) administration, mice harboring this transgene are transiently depleted of dendritic cell (DC) populations. All CD8<sup>+</sup> and CD8<sup>-</sup> DC in the spleen express EGFP and are DT sensitive. Immunohistochemical and flow cytometric analysis reveals EGFP expression and DT-inducible depletion of CD11c<sup>high</sup> DC in spleen, lymph node, lung, liver and lamina propria tissues, as well as the defined macrophage subpopulations of the alveolar, lamina propria, metallophilic and marginal zone. Rapid reduction of CD11c<sup>+</sup> DC populations induced by intraperitoneal injection of DT persists for approximately 2 days, after which the cell population gradually recovers. While transient DC depletion was not associated with sign of illness or long-term defects, repeated DT induction is lethal to the mouse. Long term depletion of this cell population can be achieved by the generation of mixed irradiation chimeras.

CD11c-DTR/GFP transgenic mice are useful in studies of mononuclear phagocyte origins and the specific role of dendritic cells in the immune response.

*In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.*

### Development

### Expression Data

### Control Suggestions

### Selected References

## Genetics

### 1700016L21Rik<sup>Tg(Itgax-DTR/EGFP)57Lan</sup>

## Disease/Phenotype

### Disease Terms

### Research Areas By Genotype

### Mammalian Phenotype Terms by Genotype

- Technical Support

C H A T   O  F L I N E

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

QPCR: [Generic GFP](#)

Standard PCR: [1700016L21RiK<sup>Tg\(Itgax-DTR/EGFP\)57Lan</sup>](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, this strain is maintained as a hemizygote.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the C.FVB-1700016L21RiK<sup>Tg(Itgax-DTR/EGFP)57Lan</sup>/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004512 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)

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

- Pricing & Availability



Cryo Recovery

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

## Domestic **International**

Pricing effective for USA, Canada and Mexico shipping destinations

### Cryorecovery - Domestic Pricing

SERVICE	GENOTYPE	PRICE
Cryo Recovery	Hemizygous or Non carrier for <a href="#">Tg(Itgax-DTR/EGFP)57Lan</a>	\$2,854.50

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

### 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.

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Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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By Collection

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