



B6.FVB-00016L-21RfK^{g(Mx1)TREC(FP)57Lan}/J

Stock No: 004509 | CD11c-DTR

Congenic, Transgenic



AVAILABLE

PLACE ORDER

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

Overview

Also Known As: CD11c-DTR

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

N5+N35

(2019-07-11 00:00:00)

[1700016L21Rik](#)^{Tg(Ilgax-DTR/EGFP)57Lan}

Allele Type

Transgenic (Inserted expressed sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$255.00 Domestic price for female 4-week

280.46 Domestic price for breeder pair

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⁺ and CD8⁻ DC in the spleen express EGFP and are DT sensitive. Immunohistochemical and flow cytometric analysis reveals EGFP expression and DT-inducible depletion of CD11c^{high} 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⁺ 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.

Development

Expression Data

Control Suggestions

Selected References

Genetics

1700016L21Rik^{Tg(Itgax-DTR/EGFP)57Lan}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

TECHNICAL SUPPORT CHAT

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

QPCR: [Generic GFP](#)

Probe: [Generic GFP](#)

Standard PCR: [1700016L21Rik^{Tg\(ltgax-DTR/EGFP\)57Lan}](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

When maintaining a live colony, hemizygous (carrier) mice may be bred with wildtype (noncarrier) mice from the colony or with C57BL/6J inbred mice. The coat color expected from breeding is black.

[Additional Breeding and Husbandry Support](#)

Mating System

Inbred x Hemizygote

C57BL/6J (000664) x Hemizygote and reciproca

Citation

When using the [GP11c-DTR](#) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004509 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)

 [AX11 \(Maximum\)](#)

Pricing & Availability



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

Available

Domestic **International**

Pricing effective for USA, Canada and Mexico shipping destinations

Live Mouse

AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Hemizygous for 1700016L21Rik^{Tg(ltgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik^{Tg(ltgax-DTR/EGFP)57Lan}	\$255.00
4 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
5 weeks	Female	Hemizygous for 1700016L21Rik^{Tg(ltgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik^{Tg(ltgax-DTR/EGFP)57Lan}	\$255.00
5 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51

6 weeks	SEX	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
		Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
6 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
7 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
7 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
8 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
8 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
9 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
9 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
10 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
10 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
11 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
11 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51
12 weeks	Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
	Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}	\$255.00
12 weeks	Female	Noncarrier	\$78.51
	Male	Noncarrier	\$78.51

Breeder Pair			PRICE
SEX	GENOTYPE		
Female	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}		\$280.46
Male	C57BL/6J (000664)		
Female	C57BL/6J (000664)		\$281.05
Male	Hemizygous for 1700016L21Rik ^{Tg(Ilgax-DTR/EGFP)57Lan}		

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