

B6;SJL-Tg(TagIn-tTA)1Mrab Tg(tetO-Mcpt1)1Mrab/J

Stock No: 008082

 Transgenic

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

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vascular chymase in smooth muscle cells, and may be useful in studying the role of elevated chymase activity in systemic hypertension and cardiovascular disease.

Donating Investigator

Marlene Rabinovitch, Stanford University School of Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(TagIn-tTA)1Mrab

Alele Type

Transgenic (Transactivator)

Tg(tetO-Mcpt1)1Mrab

Alele Type

Transgenic (Inducible, Inserted expressed sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Cardiovascular Research

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Hemizygous tTA+/RVCH+ (or SM22a-tTA/TRE-RVCH-HA) mice are viable and fertile, harboring two transgenes using the Tet-Off system. The SM22a-tTA transgene has the 3 kb SM22alpha promoter directing expression of the tetracycline transactivator gene (tTA) to vascular smooth muscle cells (SMCs). The TRE-RVCH-HA transgene has the tetracycline-responsive element (TRE; also called tet-operator or tetO) controlling expression of a rat vascular chymase-hemagglutinin tag (RVCH-HA) fusion gene. In the absence of tetracycline (or its analog doxycycline (dox)), the SM22alpha promoter limits RVCH-HA fusion protein expression to vascular SMCs. This RVCH overexpression results in hypertension. Because this binary transgenic system also allows for a second level of control, *i.e.* addition of dox, expression of the RVCH-HA fusion protein can be completely abolished; reversing the hypertension phenotype. These SM22a-tTA/TRE-RVCH-HA bi-transgenic mice allow targeted overexpression or Tet-Off conditional expression of vascular chymase in smooth muscle cells, and may be useful in studying the role of elevated chymase activity in systemic hypertension and cardiovascular disease.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(TagIn-tTA)1Mrab

Tg(tetO-Mcpt1)1Mrab

⊖ 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: [Tg\(tetO-Mcpt1\)1Mrab](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, mice hemizygous for both transgenes may be bred together, to wildtype siblings, or to B6SJLF1/J (Stock No. [100012](#)) inbred mice. It may be useful to maintain mice on doxycycline-treated water to avoid hypertension or other incidental effects of tTA or RVCH expression.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6;SJL-Tg(TagIn-tTA)1Mrab Tg(tetO-Mcpt1)1Mrab/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008082 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



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/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Hemizygous or non-carrier for Tg(Tagln-tTA)1Mrab ,Hemizygous or non-carrier for Tg(tetO-Mcpt1)1Mrab	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6;SJL-Tg(Tagln-tTA)1Mrab Tg(tetO-Mcpt1)1Mrab/J Frozen Embryo	\$2595.00
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The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

Terms Of Use

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[General Terms and Conditions](#)

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LICENSING INFORMATION

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Email: TechTran@jax.org

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