

## FVB-Tg(tetO-Cacnb2)2Jmol/J

Stock No: 013779

 Coisogenic, Transgenic

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

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### Donating Investigator

Jeffery D. Molkentin, Cincinnati Children's Hospital

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## GENETIC OVERVIEW

Genetic Background

Generation

### Tg(tetO-Cacnb2)2Jmol

#### Alele Type

Transgenic (Inducible, Inserted expressed sequence)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

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

## Details

### Detailed Description

Expression of *Cacnb2* (calcium channel, voltage-dependent, beta 2 subunit) is regulated by a tetracycline operator (tetO); also called tetracycline-responsive element (TRE, TetRE) or tet-operator) in this transgenic strain. When mated to a mutant strain expressing tetracycline-controlled transactivator protein (tTA), expression of CACNB2 protein may be regulated with tetracycline or its analog doxycycline (dox) in the double mutant offspring. When crossed with a Myh6-tTA strain (e.g. Stock No. 003170), double transgenic mice show increased  $\text{Ca}^{2+}$  influx through cardiac L-type  $\text{Ca}^{2+}$  channels resulting in  $\text{Ca}^{2+}$  overload, myocyte disorganization, interstitial fibrosis, and cell death. Compound mutant animals show a 3.1-fold increase in CACNB2 expression. This strain may be useful in studies of cardiomyopathy.

### Development

### Expression Data

### Control Suggestions

### Selected References

## Genetics

### Tg(tetO-Cacnb2)2Jmol

## Disease/Phenotype

### Disease Terms

### Research Areas By Phenotype

### Mammalian Phenotype Terms by Genotype

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

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, hemizygotes may be bred.

[Additional Breeding and Husbandry Support](#)

Citation

When using the FVB-Tg(tetO-Cacnb2)2Jmol/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #013779 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

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
<a href="#">Cryo Recovery</a>	Hemizygous or Non carrier for Tg(tetO-Cacnb2)2Jmol	\$2,854.50

RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	FVB-Tg(tetO-Cacnb2)2Jmol/J Frozen Embryo	\$2595.00
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## PAYMENT TERMS AND CONDITIONS

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## THE JACKSON LABORATORY'S GENOTYPE PROMISE

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

#### TERMS OF USE

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Q U E S T I O N S   A B O U T   T E R M S   O F   U S E

#### ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

#### LICENSING INFORMATION

Phone: 207-288-6470

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

### Related Strains

All

By Allele

By Gene

By Collection



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