

**SJL.Cg-Tg(TcraTcrbVP2)1Bkim/J**

Stock No: **018030**

 Congenic, 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

Byung S Kim, Northwestern University

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## GENETIC OVERVIEW

Genetic Background

Generation

### Tg(TcraTcrbVP2)1Bkim

#### Alele Type

Transgenic (Inserted expressed sequence)

VIEW GENETICS

## RESEARCH APPLICATIONS

Virology Research

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

A T cell line (designated C6.9-VP2) was isolated from the spinal cords of Theiler's murine encephalomyelitis virus (TMEV, BeAn strain) infected SJL/J mice that specifically recognizes the TMEV capsid protein peptide VP2<sub>74-86</sub>. Based on this cell line, a transgenic strain that expresses the VP2-specific regulatory T cell receptor was created on the SJL/J genetic background. Hemizygotes are viable and fertile. Compared to expression of the transgene in the resistant B6 background, these SJL/J mice exhibit a 2-fold increase of CD4<sup>+</sup> T cells, with a decrease in CD8<sup>+</sup> positive T cells and a 2- to 3- fold decrease in CD4<sup>+</sup>/CD8<sup>+</sup> double positive T cells in the central nervous system (CNS) in response to TMEV infection. Expression of the transgene on CD4<sup>+</sup> T cells in this susceptible background enhances Th17 responses and subsequent Interleukin (IL)-17 secretion, thus promoting viral persistence and replication by inhibiting virus-induced cell apoptosis. Unrestricted viral infection activates harmful immune responses which lead to demyelination disease. Treatment of these mice with anti-IL-17 antibodies in conjunction with TMEV infection enhances viral clearance and inhibits the development of demyelination disease. Infection of TCR VP2 mice with TMEV results in an accelerated development of demyelinating disease.

### Development

### Expression Data

### Selected References

## Genetics

### Tg(TcraTcrbVP2)1Bkim

## 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

Separated PCR:[Tg\(TcraTcrbVP2\)1Bkim](#)

Separated PCR:[Tg\(TcraTcrbVP2\)1Bkim-alternate1](#)

[Genotyping resources and troubleshooting](#)

#### Breeding Considerations

When maintaining a live colony, hemizygous mice may be bred to wildtype (non-carrier) mice from the colony or to SJL/J inbred mice (Stock No. [000686](#)).

[Additional Breeding and Husbandry Support](#)

#### Citation

When using the SJL.Cg-Tg(TcraTcrbVP2)1Bkim/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #018030 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

Cryo Recovery	Hemizygous or Non Carrier for Tg(TcraTcrbVP2)1Bkim	\$2,854.50
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## RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	SJL.Cg-Tg(TcraTcrbVP2)1Bkim/J	\$2595.00
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## 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.

## 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.](#)

### LICENSING INFORMATION

Phone: 207-288-6470

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

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All

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By Gene

By Collection



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