Also Known As: Tcra KO
Mice homozygous mice for the $Tcra^{tm1Mom}$ targeted mutation are deficient in the alpha beta T-cell receptor. The thymus is devoid of CD4$^+$CD8$^-$ and CD4$^-$CD8$^+$ cells. Normal numbers of CD4$^+$CD8$^+$ cells are retained without the IL2 receptor. There are normal numbers of CD4$^-$CD8$^-$ cells. Mice may develop inflammatory bowel disease beginning at ~4-6 months of age.

Donating Investigator
IMR Colony, The Jackson Laboratory

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GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
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<tbody>
<tr>
<td>000664 C57BL/6J</td>
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$Tcra^{tm1Mom}$
### RESEARCH APPLICATIONS

Research Tools  
Hematological Research  
Immunology, Inflammation and Autoimmunity Research

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### BASE PRICE

Starting at:  
$140.32 Domestic price for female 3-week

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### Details

#### Detailed Description

Mice homozygous mice for the Tcra<sup>tm1Mom</sup> targeted mutation are viable and fertile. They are deficient in the alpha beta T-cell receptor. The thymus is devoid of CD4<sup>-</sup>CD8<sup>-</sup> and CD4<sup>+</sup>CD8<sup>-</sup> cells. Normal numbers of CD4<sup>-</sup>CD8<sup>-</sup> cells are retained without the IL2 receptor. There are normal numbers of CD4<sup>+</sup>CD8<sup>-</sup> cells. ~1% of the thymocytes express the gamma delta TCR. Mice may develop inflammatory bowel disease beginning at ~4-6 months of age.

#### Development

#### Control Suggestions

#### Selected References
Genetics

*Tcra*<sup>tm1Mom</sup>

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols
Standard PCR:*Tcra*<sup>alternate3</sup>
Genotyping resources and troubleshooting

Breeding Considerations

This strain is a good breeder.

This *Tcra*<sup>tm1Mom</sup> strain is maintained by mating homozygous siblings. This strain should be housed under conditions similar to *Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>* mice or any other immunodeficient strain. Only homozygous mice may be ordered. Expected coat color from breeding: Black

Additional Breeding and Husbandry Support
Mating System
Homozygote x Homozygote
Appearance
black
Related Genotype: *a/a*
Citation
When using the Tcra KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #002116 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

AX27 (Maximum)

Pricing & Availability

Available Now

Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.

Domestic
International

Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>AGE</th>
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<th>GENOTYPE</th>
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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

General Terms and Conditions

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

Related Strains

All

By Allele

By Gene

By Collection