Overview

Also Known As: B6-TCRdelta-

Mice harboring this T-cell receptor delta chain (Tcrd) knock-out are deficient in receptor expression in all adult lymphoid and epithelial organs, and these mice may be useful for studying immunology and gamma delta T-cell function.

Donating Investigator

IMR Colony, The Jackson Laboratory
### GENETIC OVERVIEW

<table>
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<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>000664 C57BL/6J</td>
<td>N14F1</td>
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#### Tcrd<sup>tm1Mom</sup>

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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<td>Targeted (Null/Knockout)</td>
<td>Tcrd</td>
<td>T cell receptor delta chain</td>
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### RESEARCH APPLICATIONS

- Research Tools
- Immunology, Inflammation and Autoimmunity Research
- Diabetes and Obesity Research
- Hematological Research

### BASE PRICE

Starting at:

$231.00 Domestic price for female 4-week

### Details

#### Detailed Description

Mice homozygous for the Tcrd<sup>tm1Mom</sup> targeted mutation are viable and fertile. Gamma delta T-cell receptor expression is deficient in all adult lymphoid and epithelial organs. There is normal development of the alpha beta T-cell lineage. Patterns of CD4<sup>+</sup>CD8<sup>+</sup> and CD4<sup>-</sup>CD8<sup>+</sup> alpha beta T-cells are apparently normal. Mice do not develop inflammatory bowel disease. Diet-induced obesity in homozygous mice results in a reduction in insulin resistance and liver and skeletal muscle inflammation as compared to C57BL/6J controls fed high fat diet (42% fat). This strain may be useful for studying gamma delta T cells and their role in the proinflammatory response.

#### Development

#### Control Suggestions

#### Selected References

#### Genetics
Genotyping Protocols
Standard PCR: tcrd<sup>tm1Mom</sup>
MELT: Generic Neo
Genotyping resources and troubleshooting

Dietary Information
LabDiet<sup>®</sup> 5K52 formulation (6% fat)

Breeding Considerations
This strain is an exceptional breeder.
This tcrd<sup>tm1Mom</sup> strain is maintained by mating homozygous siblings. This strain should be housed under conditions similar to Prkoc<sup>Scid</sup>/Prkoc<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 B6-TcRdelta<sup>+</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #002120 in your Materials and Methods section.
Facility Barrier Level Descriptions
AX10 (Standard)

Pricing & Availability
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.

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Related Strains

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