B6.129S2-Cd4<sup>1Mak</sup>/J

Stock No: 002663 | CD4 KO

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Overview
Also Known As: CD4 KO
Mice homozygous for the \( \text{Cd4}^{\text{tm1Mak}} \) targeted mutation have a significant block in CD4\(^+\) T-cell development. Cell surface expression of CD4 protein is not detected on thymocytes and lymph node cells from homozygous mice. Homozygous mutant mice also show a Class II restricted deficit in helper T-cell activity and other T-cell responses. This mutant mouse strain may be useful in studies of T cell development, susceptibility to viral infection and inflammation.

Donating Investigator
Dr. Tak Mak, University Health Network/Un of Toronto

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Cd4}^{\text{tm1Mak}} )</td>
<td></td>
</tr>
</tbody>
</table>

**Allele Type**
- Targeted (Null/Knockout)

<table>
<thead>
<tr>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Cd4} )</td>
<td>CD4 antigen</td>
</tr>
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</table>

RESEARCH APPLICATIONS
Immunology, Inflammation and Autoimmunity Research
Research Tools
Virology Research
Mice homozygous for the \( Cd4^{tm1Mak} \) targeted mutation have a significant block in CD4\(^+\) T-cell development; 90% of their circulating T-cells are CD8\(^+\). Cell surface expression of CD4 protein is not detected on thymocytes and lymph node cells from homozygous mice. Homozygous mutant mice also show a Class II restricted deficit in helper T-cell activity and other T-cell responses. This mutant mouse strain may be useful in studies of T cell development, susceptibility to viral infection and inflammation.

**Genetics**

\( Cd4^{tm1Mak} \)

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**References**

**Technical Support**
Genotyping Protocols
Separated MCA: Nnt
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

This strain is a good breeder.
When maintaining a live colony, these mice can be bred as homozygotes. Expected coat color from breeding is black.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black

Related Genotype: a/a

Citation
When using the CD4 KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #002663 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

Pricing & Availability

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<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<td>3 weeks</td>
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<td>homozygous for Cd4</td>
<td>$144.39</td>
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<td>$147.14</td>
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<tr>
<td>4 weeks</td>
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<tr>
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<td>$147.14</td>
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