NOD.129S2(Casp1<sup>−/−</sup>Casp4<sup>−/−</sup>)<sub>tm1Sesh</sub> Stock No: 004947 | ICE

- Congenic, Deletion, Targeted Mutation

**CRYO RECOVERY**

**PLACE ORDER**

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

Also Known As: NOD.Casp-1null, ICE

Cultured LPS stimulated bone marrow derived macrophages from homozygous animals secrete less IL1 beta and IL1 alpha; IL18 is undetectable when compared with hemizygous and wild-type controls. Diabetes frequency of Casp1null deficient animals is equivalent to NOD/Lt, heterozygote and wild-type controls. This strain is a useful model for studying the role of IL1 and IL18 cytokines in inflammatory processes relating to diabetes.

Donating Investigator
Dr. Edward Leiter, The Jackson Laboratory

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>001289 NOD/ShiLt</td>
<td></td>
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</table>

Casp1null

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Casp1</td>
<td>caspase 1</td>
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</table>

Casp4del

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>Casp4</td>
<td>caspase 4, apoptosis-related cysteine peptidase</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

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

BASE PRICE
Starting at:
$2,854.50 Domestic price Cryo Recovery
Details

Detailed Description

*Casp1*^tm1Sesh^ homozygous mice are viable, fertile, normal in size, and do not display any gross physical or behavioral abnormalities. There is no detectable expression of *Casp1* in spleen by northern blot analysis or by RT-PCR of peritoneal exudate cells, brain, lung, heart, liver, adrenal gland, kidney, testis, and thymus (Li et al, 1995). Cultured LPS stimulated bone marrow derived macrophages from homozygous NOD.129S2(B6)- *Casp1*^tm1Sesh^ /LtJ animals secrete 4-fold less IL1 beta, 30% less IL1 alpha, and IL18 is undetectable when compared with hemizygous and wild-type controls. Diabetes frequency of *Casp1*^tm1Sesh^ deficient animals is equivalent to NOD/Lt, heterozygote and wild-type controls. Weanling *Casp1*^tm1Sesh^ homozygous animals injected with Complete Freund's adjuvant and young pre-diabetic males treated with multiple low dose streptozotocin behave similarly to control (wild type, heterozygote, or NOD/Lt) animals (Schott et al, 2004). NOD.129S2(B6)- *Casp1*^tm1Sesh^ /LtJ is a useful model for studying the role of IL1 and IL18 cytokines in inflammatory processes relating to diabetes.

Development

Control Suggestions

Selected References

Genetics

*Casp1*^tm1Sesh^

*Casp4*^del^

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

Phenotype Information

References

Technical Support
Genotyping Protocols
Separated PCR: Casp1<sup>tm1Sesh</sup>
Sanger sequencing: Casp4<sup>del</sup>
Separated PCR: Casp1<sup>tm1Sesh</sup>
Genotyping resources and troubleshooting

Breeding Considerations
A footpad injection of Complete Freund's Adjuvant (CFA) administered once at weaning will delay diabetes onset, thus extending the lifespan of breeders. A discussion on the use of Complete Freund's Adjuvant in NOD mice can be found in Current Protocols in Immunology (1997) pages 15.9.1-15.9.23 (see PDF link under Immunological protocols).

Additional Breeding and Husbandry Support

Appearance
albino, pink-eyed
Related Genotype: A<sup>+</sup>/A<sup>−</sup> Tyr<sup>r</sup>/Tyr<sup>+</sup>

Citation
When using the ICE mouse strain in a publication, please cite the originating article(s) and include JAX stock #004947 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

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

Domestic

Cryo Recovery - Domestic Pricing

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Homozygous for Casp1&lt;sup&gt;tm1Sesh&lt;/sup&gt; and Homozygous for Casp4&lt;sup&gt;del&lt;/sup&gt;, 1 pair minimum</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryo recovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

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All

By Allele

By Gene

By Collection

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TOMORROW'S CURES