

## NOD.129S2(B6)-*Casp1*<sup>tm1Sesh</sup> *Casp4*<sup>del</sup> /LtJ

Stock No: 004947 | ICE

 Congenic, Deletion, Targeted Mutation

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IL18 is undetectable when compared with hemizygous and wild-type controls. Diabetes frequency of *Casp1*<sup>tm1Sesh</sup> 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

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## GENETIC OVERVIEW

### Genetic Background

001289 NOD/ShiLt

### Generation

### *Casp1*<sup>tm1Sesh</sup>

#### Alele Type

Targeted (Null/Knockout)

#### Gene Symbol

*Casp1*

#### Gene Name

caspase 1

### *Casp4*<sup>del</sup>

#### Alele Type

Spontaneous  
(Null/Knockout)

#### Gene Symbol

*Casp4*

#### Gene Name

caspase 4, apoptosis-related cysteine peptidase

VIEW GENETICS

## RESEARCH APPLICATIONS

VIEW ALL RESEARCH APPLICATION

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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### Details

#### Detailed Description

*Casp1<sup>tm1Sesh</sup>* 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<sup>tm1Sesh</sup>/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<sup>tm1Sesh</sup>* deficient animals is equivalent to NOD/Lt, heterozygote and wild-type controls. Weanling *Casp1<sup>tm1Sesh</sup>* 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<sup>tm1Sesh</sup>/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<sup>tm1Sesh</sup>*

[+ Casp4<sup>del</sup>](#)

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## [- Disease/Phenotype](#)

[+ Disease Terms](#)

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[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ Phenotype Information](#)

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## [- 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:[Casp1](#)

Sanger sequencing:[Casp4](#)

Separated PCR:[Casp1](#)

[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>l</sup>? Tyr<sup>f</sup> / Tyr<sup>f</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 | International

Pricing effective for USA, Canada and Mexico shipping destinations

#### CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Homozygous for Casp1 <sup>tm1Sesh</sup> and Homozygous for Casp4 <sup>del</sup> , 1 pair minimum	\$2,854.50

## 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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