

NOD.B10Sn-Idd5^{C57BL/10SnJ}/974MrkJ

Stock No: **008894** | NOD.B10-Idd5R974

 Congenic

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NOD congenic strains, Stock No. [008893](#) and [008894](#), are the result of crossing segments of C57BL/10SnJ derived Chromosome 1 into the NOD/MrkTac background. These strains may be useful to better understand the variation of diabetic resistance conferred by *Idd* loci and should be useful for identifying diabetes susceptible candidate genes within the *Idd5* subloci, specifically *Idd5d*.

Donating Investigator

Linda Wicker, University of Cambridge, UK

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GENETIC OVERVIEW

Genetic Background **Generation**

Idd5^{C57BL/10SnJ}

Alele Type	Gene Symbol	Gene Name
QTL	<i>Idd5</i>	insulin dependent diabetes susceptibility 5

Marker(s)

Marker Symbol	Marker Name
<i>Idd5.2</i>	insulin dependent diabetes susceptibility 5.2
<i>Idd5.1</i>	insulin dependent diabetes susceptibility 5.1
<i>Idd5.3</i>	insulin dependent diabetes susceptibility 5.3
<i>Idd5.4</i>	insulin dependent diabetes susceptibility 5.4

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Diabetes and Obesity Research

[VIEW ALL RESEARCH APPLICATIONS](#)

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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Details

Detailed Description

This NOD congenic strain, commonly referred to as NOD.B10-*Idd5*, line 974, carries two C57BL/10SnJ (Stock No. [000666](#)) Chromosome 1 segments. The first proximal segment is defined within *D1Mit249* (60.89Mb) and *D1Mit101* (147.31Mb) and includes the insulin dependent diabetes susceptibility (*Idd*)5.1, 5.2, 5.3 and part of the *Idd5.4* loci (*Idd5a*, *Idd5b*, *Idd5c*, and *Idd5d*, respectively). The second distal segment is defined within *D1Mit346* (152.63Mb) and *D1Mit267* (157.94Mb) and contains the remainder of the *Idd5.4* (*Idd5d*) region. This strain contains a rare recombination event captured at the proximal end of the congenic segment where it recombines between the genes encoding *Cd28* (NOD allele) and *Ctla4* (B10 allele). Diabetes incidence among 200 day old female mice of this strain is reported at 17%, compared with more than 80% in NOD controls (Hunter, *et al.* 2007), while males rarely become diabetic (incidence not done).

This strain may be useful for positional mapping of the *Idd5.4* loci and identifying candidate genes within the *Idd5.4* region. This strain is key to understanding the variation in diabetic resistance conferred by *Idd* loci, in particular the epistatic interactions of *Idd5.1* alleles with alleles at *Idd5.4*.

This strain and NOD.B10-*Idd5*, line 974 ((Stock No. [008894](#)) together define the *Idd5.1* interval.

Development

Control Suggestions

Selected References

Genetics

+ [Idd5^{C57BL/10SnJ}](#)

+ [Idd5.2](#)

+ [Idd5.1](#)

+ [Idd5.3](#)

+ [Idd5.4](#)

Disease/Phenotype

+ [Disease Terms](#)

+ [Research Areas By Phenotype](#)

+ [Mammalian Phenotype Terms by Genotype](#)

+ [References](#)

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

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Mice are maintained homozygous x homozygous siblings. Expected coat color is albino.

[Additional Breeding and Husbandry Support](#)

Appearance

albino

Related Genotype: *A/A Tyr^c / Tyr^c*

Citation

When using the NOD.B10-Idd5R974 mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008894 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



Cryo
Recovery

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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Homozygous for Idd5<C57BL/10J>, 1 pair minimum	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	NOD.B10Sn-Idd5<C57BL/10SnJ>/974MrkJ Frozen Embryos	\$2595.00
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