

NOD.Cg-Rag1^{tm1Mom} H2-Ab1^{tm1Gru} Tg(CD2-CD4,HLA-DQA1,HLA-DQB1)1EII/EIJJ

Stock No: **006022** | NOD.DQ8, H2-Ab0^{null}, Rag1^{null}

◆ Congenic, Targeted Mutation, Transgenic

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

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Donating Investigator

John Elliott, University of Alberta

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GENETIC OVERVIEW

Genetic Background

Generation

Rag1^{tm1Mom}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Rag1

Gene Name

recombination activating gene 1

H2-Ab1^{tm1Gru}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

H2-Ab1

Gene Name

histocompatibility 2, class II antigen A, beta 1

Tg(CD2-CD4,HLA-DQA1,HLA-DQB1)1EII

Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Research Tools
Diabetes and Obesity Research
Internal/Organ Research
Cancer Research
Hematological Research

[VIEW ALL RESEARCH APPLICATIONS](#)

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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[- Details](#)

[- Detailed Description](#)

Rag1 and H2-Ab1 deficient NOD mice carrying transgenes coding for human CD2-CD4 and HLA-DQ8 lack T and B cells, and are diabetes free. Also, unlike the H2-Ab1 deficient, transgenic CD4, HLA-DQ8 mice (see Stock No. [006021](#)), this strain does not develop cardiomyopathy.

This model is useful in adoptive transfer experiments and to understand the role of MHC class II in autoimmunity.

[+ Development](#)

[+ Expression Data](#)

[+ Control Suggestions](#)

[+ Selected References](#)

[- Genetics](#)

[+ Rag1^{tm1Mom}](#)

[+ H2-Ab1^{tm1Gru}](#)

[+ Tg\(CD2-CD4,HLA-DQA1,HLA-DQB1\)1EII](#)

[- 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

Separated PCR:[Tg\(CD2-CD4,HLA-DQA1,HLA-DQB1\)1EII](#)

Separated PCR:[H2-Ab1alternate2](#)

Standard PCR:[Rag1Alternate1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, mice homozygous for both targeted mutations and hemizygous for the transgene may be bred together. These mice are immunodeficient and need to be maintained in a high barrier environment with sterile food and water.

Rag1-deficient, H2-Ab1-deficient mice are immunodeficient. As such, and similar to other immunodeficient strains, maintenance in high health status (specific pathogen-free) vivaria promotes overall colony health. If these animals are maintained in lowhealth barrier rooms, the use of medicated water (e.g., sulfatrim/trimethoprim-sulfa or enrofloxacin/Baytril) is suggested to increase overall colony health.

[Additional Breeding and Husbandry Support](#)

Appearance

pink-eyed, albino

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

Citation

When using the NOD.DQ8, *H2-Ab0^{null}*, *Rag1^{null}* mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #006022 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

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

Domestic | International

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CRYORECOVERY - DOMESTIC NOT-FOR-PROFIT & ACADEMIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Homozygous for Rag1<tm1Mom>, Homozygous for H2-Ab1<tm1Gru>, Carrier (Tg/?) for Tg(CD2-CD4,HLA-DQA1,HLA-DQB1)1EII	\$2,854.50

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THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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