NOD.Cg-Rag1<sup>tm1Mom</sup> H2-Ab1<sup>tm1Gru</sup> Tg(CD4,HLA-DQA1,HLA-DQB1)N8Ell/EllJ

Stock No: 006024 | NOD.DQ6, H2-Ab0<sup>null</sup>,Rag1<sup>null</sup>

Congenic, Targeted Mutation, Transgenic

CRYO RECOVERY

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

Also Known As: NOD.Cg-Rag1<sup>tm1Mom</sup> H2-Ab1<sup>tm1Gru</sup> Tg(CD4,HLA-DQA1*0102,HLA-DQB1*0602)1Ell/EllJ, NOD.Cg-Rag1<sup>tm1Mom</sup> H2-Ab1<sup>tm1Gru</sup> Tg(CD4, HLA-DQA*0102, HLA-DQB*0602)1Ell/EllJ, NOD.Cg-Rag1<sup>tm1Mom</sup> Ab1<sup>tm1Gru</sup> Tg(CD4, HLA-DQA*0102, HLA-DQB*0602)1Ell/EllJ, NOD.DQ6, H2-Ab0<sup>null</sup>,Rag1<sup>null</sup>

These NOD mice carry human CD4 and HLA-DQ6 transgenes resulting in a lack of T and B cells.

Donating Investigator

John Elliott, University of Alberta

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<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>001976 NOD/ShiLtJ</td>
<td></td>
</tr>
</tbody>
</table>

**Tg(CD4,HLA-DQA1,HLA-DQB1)N8Ell**

**Allele Type**
Transgenic (Inserted expressed sequence, Humanized sequence)

**Rag1<sup>tm1Mom</sup>**

<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>Rag1</td>
<td>recombination activating gene 1</td>
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</table>

**H2-Ab1<sup>tm1Gru</sup>**

<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>H2-Ab1</td>
<td>histocompatibility 2, class II antigen A, beta 1</td>
</tr>
</tbody>
</table>

VIEW GENETICS
Cancer Research
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Research Tools
Internal/Organ Research
Diabetes and Obesity Research

Starting at:
$2,595.00 Domestic price Cryo Recovery

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Details

Detailed Description

Rag1 and H2-Ab1 deficient NOD mice carrying transgenes encoding humanized CD4 and HLA-DQ6 lack T and B cells and are free of autoimmune diabetes and cardiomyopathy, and do not develop thyroiditis.

This model is useful in adoptive transfer experiments and in studying MHC class II-based resistance and susceptibility in autoimmunity.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(CD4,HLA-DQA1,HLA-DQB1)N8Ell

Rag1\textsuperscript{Iim1\textsuperscript{Mom}}

H2-Ab1\textsuperscript{Iim1\textsuperscript{gru}}

Disease/Phenotype
Genotyping Protocols
QPCR: **DQ8 Alpha**
Separated PCR: H2-Ab1<sup>tm1Gru</sup> alternate2
QPCR: **DQ8 Beta**
Separated PCR: Tgl(CD4,HLA-DQA1,HLA-DQB1)N8EII
MELT: **Rag1<sup>tm1McR</sup> Alternate1**
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 low health 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

Citation
When using the NOD DQ6, H2-Ab0<sup>null</sup>,Rag1<sup>null</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #006024 in your Materials and Methods section.

Animal Health Reports
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.
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.

Cryorecovery 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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By Allele

By Gene

By Collection

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