NOD.Cg-Prkdc<sup>scid</sup> H2-Ab<sup>1tm1Doi</sup> Tg(HLA-DQA1,HLA-DQB1)<sup>1Dv/SzJ</sup>

Stock No: 004606 | NOD.scid AB0 nullDQ8

Congenic, Spontaneous Mutation, Targeted Mutation, Transgenic

PLACE ORDER

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

Also Known As: NOD.scid AB0<sup>null</sup>DQ8

This strain which is MHC II deficient and has no functional T or B cells expresses a humanized transgenic HLA-DQ8 molecule that has been linked to IDDM development. This model is a valuable genetic tool for identifying the role of HLA-DQ8 in Type 1 Diabetes.

Donating Investigator
Dr. Leonard D. Shultz, 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>
</tr>
</tbody>
</table>

**Tg(HLA-DQA1,HLA-DQB1)<sup>1Dv</sup>**

**Allele Type**

Transgenic (Inserted expressed sequence, Humanized sequence)

**H2-Ab<sup>1tm1Doi</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>

**Prkdc<sup>scid</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>Prkdc</td>
<td>protein kinase, DNA activated, catalytic polypeptide</td>
</tr>
</tbody>
</table>

VIEW GENETICS

RESEARCH APPLICATIONS
Research Tools
Internal/Organ Research
Immunology, Inflammation and Autoimmunity Research
Virology Research
Details

Detailed Description

This strain which is MHC II deficient and has no functional T or B cells expresses a humanized transgenic HLA-DQ8 molecule that has been linked to IDDM development. This model is a valuable genetic tool for identifying the role of HLA-DQ8 in Type 1 Diabetes.

Development

Expression Data

Control Suggestions

Genetics

Tg(HLA-DQA1,HLA-DQB1)1Dv

H2-Ab1^102i

Prkdc^scid

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
End Point Analysis: Prkdc<sup>scid</sup> End Point
Separated PCR: H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup>
MELT: Tg(HLA-DQA1)
MELT: Tg(HLA-DQB1)
Genotyping resources and troubleshooting

Breeding Considerations
These mice are immunodeficient and need to be maintained in a high barrier environment with sterile food and water or given antibiotic in the water.
Embryos frozen are either Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>, Tg/+, H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup> or Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>, +/+, H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup>
Recommended breeding scheme: Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>, Tg/+; H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup> X Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>, +/+; H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup> and reciprocal.
Affected mutant: Prkdc<sup>scid</sup>/Prkdc<sup>scid</sup>, Tg, +/+, H2-Ab<sup>1tm1Doi</sup>/H2-Ab<sup>1tm1Doi</sup>
Additional Breeding and Husbandry Support

Appearance
albino, pink eyed
Related Genotype: A/A Tyr<sup>c</sup>/Tyr<sup>c</sup>

Citation
When citing the NOD scid AB<sup>1tm1Doi</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #004606 in your Materials and Methods section.

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.

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Homozygous for Prkdc&lt;sup&gt;scid&lt;/sup&gt;, Homozygous for H2-Ab&lt;sup&gt;1tm1Doi&lt;/sup&gt;, Hemizygous or Homozygous(Tg/?) or no-carrier for Tg(HLA-DQA1,HLA-DQB1)Dv</td>
<td>$2,856.50</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.

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.

### Related Products and Services

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

### 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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Phone: 207-288-6470
Email: TechTran@jax.org

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