These mutant mice combine the features of the NOD/ShiLtJ background, the severe combined immune deficiency mutation (scid), IL2 receptor gamma chain deficiency and a human/mouse chimeric MHC Class II transgene (Tg(HLA-DRB1*01)1Dmz). This mutant mouse strain may be useful for xenotransplantation and vaccine development.

Donating Investigator
Gloria Koo, Hospital for Special Surgery
Richard O'Reilly, Memorial Sloan Kettering Cancer Center

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### GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prkdc^{scid}</strong></td>
<td></td>
</tr>
<tr>
<td>Allele Type</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>Prkdc</td>
</tr>
<tr>
<td>Gene Name</td>
<td>protein kinase, DNA activated, catalytic polypeptide</td>
</tr>
<tr>
<td><strong>Il2rg^{tm1Wjl}</strong></td>
<td></td>
</tr>
<tr>
<td>Allele Type</td>
<td>Targeted (Null/Knockout)</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>Il2rg</td>
</tr>
<tr>
<td>Gene Name</td>
<td>interleukin 2 receptor, gamma chain</td>
</tr>
<tr>
<td><strong>Tg(HLA-DRA<em>0101,HLA-DRB1</em>0101)1Dmz</strong></td>
<td></td>
</tr>
<tr>
<td>Allele Type</td>
<td>Transgenic (Inserted expressed sequence, Humanized sequence)</td>
</tr>
</tbody>
</table>

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
Mice that are homozygous for the targeted transgene are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. These mutant mice combine the features of the NOD/ShiLtJ background, the severe combined immune deficiency mutation (scid), IL2 receptor gamma chain deficiency and a human/mouse chimeric MHC Class II transgene (Tg(HLA-DRB1*01)1Dmz). This mutant mouse strain is expected to be useful for xenotransplantation and vaccine development.
Genotyping Protocols

- **Standard PCR**:
  - Tg(HLA-DRA)
  - Tg(HLA-DRB1*0101)1Dmz
- **Probe**:
  - Il2rg-PROBE
- **End Point Analysis**:
  - Prkdc END POINT
  - QPCR: Tg(HLA-DRA*0101)-qPCR
  - QPCR: Tg(HLA-DRB1*0101)-qPCR
  - QPCR: Tg(HLA-DRB1)Dmz-qPCR
  - QPCR: Tg(HLA-DRB1)Dmz-qPCR

Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes for all three alleles. SPF (specific pathogen-free) conditions are recommended.

Additional Breeding and Husbandry Support

Citation

When using the NOD.Cg-Tg(HLA-DRA*0101,HLA-DRB1*0101)1DmzPrkdc<sup>scid</sup>Il2rg<sup>tm1Wjl</sup>/GckRolyJ mouse strain in a publication, please cite the originating article(s) and include JAX stock #012479 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/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous for Tg(HLA-DRA<em>0101,HLA-DRB1</em>0101)1Dmz and Homozygous for Prkdc&lt;scid&gt; Il2rg&lt;tm1Wjl&gt;</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

**RELATED PRODUCTS AND SERVICES**

| Frozen Mouse Embryo | NOD.Cg-Prkdc<scid> Il2rg<tm1Wjl> Tg(HLA-DRA*0101 HLA-DRB1*01 | $2,854.50 |

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

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All

By Allele

By Gene

By Collection

All Related Strains

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