These transgenic SCID mice express the human histocompatibility complex (MHC) class I allele HLA-A2.1. Donating Investigator: Dr. David Serreze, The Jackson Laboratory. Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prkdc<em>scid</em></td>
<td></td>
</tr>
</tbody>
</table>

**Allele Type**
- Spontaneous

**Gene Symbol**
- Prkdc

**Gene Name**
- protein kinase, DNA activated, catalytic polypeptide

**Mcp1*Tg(HLA-A2.1)1Enge***

**Allele Type**
- Transgenic (Null/Knockout, Inserted expressed sequence, Humanized sequence)

**RESEARCH APPLICATIONS**

Research Tools
- Internal/Organ Research
- Immunology, Inflammation and Autoimmunity Research
- Virology Research
- Diabetes and Obesity Research
Although transgenic NOD mice develop diabetes significantly earlier than do NOD/ShiLtDvs (NOD) mice, this transgenic strain harbors the Prkdc<sup>scid</sup> mutation (characterized by an absence of functional T cells and B cells) and therefore does not become diabetic. In adoptive transfer experiments splenocytes from NOD.HLA-A2.1 mice did not induce T1D in these NOD-.<sup>scid</sup>HLA-A2.1 transgenic mice at a significantly faster rate than when transferred to NOD-.<sup>scid</sup> recipients. This strain is useful for adoptive transfer experiments and as a source of insulitis free pancreatic islets.

**Genetics**

- Prkdc<sup>scid</sup>
- Mcph<sup>Tg(HLA-A2.1)1Enge</sup>
Technical Support

Genotyping Protocols
End Point Analysis: Prkdc End Point
QPCR: Tg(HLA-A)-2
Genotyping resources and troubleshooting

Citation
When using the NOD.scid, HLA-A2 mouse strain in a publication, please cite the originating article(s) and include JAX stock #006609 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

<table>
<thead>
<tr>
<th>Cryo Recovery - Domestic Pricing</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous for Mcph1&lt;tg(HLA-A2.1)1Enge&gt; and homozygous for Prkdc&lt;scid&gt;</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

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

All

By Allele

By Gene

By Collection

All Related Strains