B6.Cg-Ifgr1tm1Dcr Prkdc<sup>−/−</sup> CAG-FCGRT<sup>276Dcr</sup>/Dcr scid

Stock No: 021146 | FcRn<sup>/−</sup> hFcRn (line 276) Tg scid

- 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.
Overview

Also Known As: FcRn-/- hFcRn (line 276) Tg scid

FcRn-/- hFcRn (line 276) Tg scid mice express a human alpha chain FCGRT molecule in lieu of the endogenous mouse Fcgrt. The presence of the Prkdc<sup>scid</sup> allele conveys immunodeficiency. These mice are useful in applications involving xenograft studies, in evaluating the pharmacokinetics and pharmacodynamics of human immunoglobulin (Ig) and Fc-domain based therapeutics, and for testing of potential immunogenic human IgGs.

Need assistance evaluating antibodies in FcRn mice? Human preclinical pharmacokinetic (PK) analysis is available. See our FcRn full service platform.

Donating Investigator

Dr. Derry Roopenian, The Jackson Laboratory

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**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>Tg(CAG-FCGRT)276Dcr</td>
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**Allele Type**

Transgenic (Inserted expressed sequence, Humanized sequence)

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

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

**Fcgrt<sup>tm1Dcr</sup>**

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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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These mice are homozygous for a FcRn alpha-chain knockout allele (Fcgrt<sup>tm1Dcr</sup>), the Prkdc<sup>scid</sup> allele, and express a human FcRn alpha-chain (FCGRT) transgene under the control of the CAG promoter/enhancer (line 276). Mice display a normal level of murine serum albumin, and a low level of murine IgG due to species-specific binding of IgG by human FCGRT, i.e. murine IgG has a very low affinity to human FCGRT and therefore is not recycled. The transgenic founder line 276 provides a model to study serum half-life of human IgG (hIgG), with a good correlation to cynomolgus monkey and human. This mouse model is useful for studying human FcRn biology and the behavior of IgG antibodies and Fc-domain proteins. These immunocompromised, humanized mice produce no mature T cells or B cells and may be useful in xenograft studies, for testing of potential immunogenic hIgGs, and in evaluating the pharmacokinetics of human immunoglobulin and Fc-domain based therapeutics.
Genotyping Protocols
Separated PCR: Tg(FCGRT) alternate1
End Point Analysis: Prkdc End Point
Standard PCR: Fcgrt
Standard PCR: Fcgrt Alternate1
QPCR: Tg(FCGRT)-qPCR
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as homozygotes for the Fcgrt<sup>tm1Dcr</sup> and Prkdc<sup>scid</sup> alleles and the Tg(CAG-FCGRT)279Dcr transgene.

Additional Breeding and Husbandry Support

Citation
When using the FcRn-/- hFcRn (line 276) Tg scid<sup>tm1Dcr</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #021146 in your Materials and Methods section.

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.
Pricing effective for USA, Canada and Mexico shipping destinations

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<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Fcgrt&lt;tm1Dcr&gt;, Heterozygous for Prkdc&lt;scid&gt;, Hemizygous for Tg(CAG-FCGRT)276Dcr,</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

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