B6.Cg-\textit{Prkdc}\textsuperscript{tm1Dcr}\textsuperscript{scid} Tg(CAG-FCGRT)276Dcr/DcrJ

**Stock No:** 021146 | FcRn/- hFcRn (line 276) Tg scid

- Congenic, Spontaneous Mutation, Targeted Mutation, Transgenic

**CRYO RECOVERY**

**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

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td><strong>Tg(CAG-FCGRT)276Dcr</strong></td>
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<tr>
<td><strong>Allele Type</strong></td>
<td>Transgenic (Inserted expressed sequence, Humanized sequence)</td>
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| **Prkdc<sup>scid</sup>** | |
| **Allele Type** | Spontaneous |
| **Gene Symbol** | Prkdc |
| **Gene Name** | protein kinase, DNA activated, catalytic polypeptide |

| **Fcgrttm1Dcr** | |
| **Allele Type** | |
| **Gene Symbol** | |
| **Gene Name** | |
These mice are homozygous for a FcRn alpha-chain knockout allele (Fcgrtm1Dcr), the Prkdc^{sind} 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.
**Prkdc<sup>scid</sup>**

**Fcgr<sup>tm1Dcr</sup>**

### Disease/Phenotype

#### Disease Terms

#### Research Areas By Genotype

#### Mammalian Phenotype Terms by Genotype

#### References

### Technical Support

**Genotyping Protocols**
- Separated PCR: Tg(FCGRT)
- End Point Analysis: Prkdc<sup>scid</sup>
- Standard PCR: Fcgr<sup>tm1Dcr</sup>
- Standard PCR: Fcgr<sup>tm1Dcr</sup>
- QPCR: Tg(FCGRT)

Genotyping resources and troubleshooting

**Breeding Considerations**

When maintaining a live colony, these mice can be bred as homozygotes for the Fcgr<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<sup>-/-</sup> hFcRn (line 276) Tg scid mouse strain in a publication, please cite the originating article(s) and include JAX stock #021146 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

**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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