NOD.Cg-TyrPrkdcI2rThomJ

Stock No: 026622 | NBSGW

Congenic, Spontaneous Mutation, Targeted Mutation

READILY AVAILABLE

PLACE ORDER

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.
Also Known As: NBSGW
These NBSGW mice support engraftment of human hematopoietic stem cells without irradiation. They are suitable for use in applications related to xenotransplantation.

Donating Investigator
James A. Thomson, The University of Wisconsin

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>
</tbody>
</table>

Contact Technical Support
(2018-07-27 00:00:00)
Spontaneous \( Prkdc \) protein kinase, DNA activated, catalytic polypeptide

\[ Il2rg^{tm1Wjl} \]

<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>( Il2rg )</td>
<td>interleukin 2 receptor, gamma chain</td>
</tr>
</tbody>
</table>

\[ Tyr^{+} \]

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>( Tyr )</td>
<td>tyrosinase</td>
</tr>
</tbody>
</table>

\[ Kit^{W-41J} \]

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>( Kit )</td>
<td>KIT proto-oncogene receptor tyrosine kinase</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

Mouse/Human Gene Homologs
Research Tools
Internal/Organ Research
Immunology, Inflammation and Autoimmunity Research
Virology Research
Dermatology Research
Reproductive Biology Research
Cancer Research

**BASE PRICE**

Starting at:

$248.32 Domestic price for male 3-week

**Details**

Xenograft NBSGW mice exhibit enhanced human hematopoietic chimerism in peripheral blood, bone marrow, and spleen when compared to non-irradiated engrafted NSG mice, with a level of chimerism similar to that seen in irradiated NSG mice. Chimerism in the peripheral blood of engrafted NBSGW mice was found to be 9-fold higher than chimerism exhibited by engrafted NSG mice. Serial transplantation of human hematopoietic stem cells is also supported with evidence of secondary graft expansion in the secondary recipients. Mice are mottled grey and white coat color due to the homozygous wildtype \( Tyr \) (tyrosinase) allele. While establishing the strain, mice that were homozygous for the wildtype \( Tyr \) (tyrosinase) allele were selected for further breeding to...
eliminate the albino coat color from the colony (allows easier visual phenotyping of Kit<sup>W-41J</sup> allele). Mice that are homozygous for all three of these mutant alleles are viable and fertile. These NBSGW mice may be expected to have a similar phenotype as the NSGW41 model (Stock No. 026497).
Dietary Information
LabDiet® 5K52/5K67
Breeding Considerations

This strain is a good breeder.

When maintaining a live colony, these mice can be bred as homozygotes for the Kit$^{W-41J}$, Prkdc$^{scid}$, Il2rg$^{tm1Wjl}$ alleles (males would be hemizygous for the X-linked Il2rg$^{tm1Wjl}$).

Additional Breeding and Husbandry Support

Mating System
Females homozygous for the Kit$^{W-41J}$, Prkdc$^{scid}$, Il2rg$^{tm1Wjl}$ alleles x Males homozygous for the Kit$^{W-41J}$, Prkdc$^{scid}$, hemizygous for the Il2rg$^{tm1Wjl}$ alleles

Appearance
Mice are mottled grey and white.

Citation
When using the NBSGW mouse strain in a publication, please cite the originating article(s) and include JAX stock #026622 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

ADO (Maximum)

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Pricing & Availability

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.

Domestic

Pricing effective for USA, Canada and Mexico shipping destinations

Domestic Pricing for
Commercial & For-Profit
Not-For-Profit & Academic

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$288.43</td>
</tr>
<tr>
<td>3 weeks</td>
<td>Male</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$248.32</td>
</tr>
<tr>
<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$291.57</td>
</tr>
<tr>
<td>4 weeks</td>
<td>Male</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$250.92</td>
</tr>
<tr>
<td>5 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$291.57</td>
</tr>
<tr>
<td>5 weeks</td>
<td>Male</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$250.92</td>
</tr>
<tr>
<td>6 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$296.72</td>
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<tr>
<td>6 weeks</td>
<td>Male</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$256.07</td>
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<tr>
<td>7 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$301.87</td>
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<tr>
<td>7 weeks</td>
<td>Male</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$261.22</td>
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<tr>
<td>8 weeks</td>
<td>Female</td>
<td>Homozygous for Kit$^{W-41J}$, Homozygous for Prkdc$^{scid}$, Homozygous for Il2rg$^{tm1Wjl}$</td>
<td>$307.02</td>
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All

By Allele

By Gene

By Collection

All Related Strains