C57BL/6N-Tg(ngfr tm1Jae)J

Stock No: 002124 | p75 NGFR

Targeted Mutation

CRYD 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: p75 NGFR

Mice homozygous for the Ngfr tm1Jae mutation display a decreased cutaneous innervation by calcitonin gene-related peptide- and substance P-immunoreactive sensory fibers. Pineal glands lack sympathetic innervation, and innervation to sweat glands on foot pads is either reduced or absent. p75-deficient dorsal root ganglion and superior cervical ganglion neurons show a 2- to 3-fold decrease in sensitivity to nerve growth factor at embryonic day 15 and postnatal day 3, respectively.

Donating Investigator

Dr. Rudolf Jaenisch, Whitehead Institute (MIT)
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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</thead>
<tbody>
<tr>
<td><strong>Ngfr^{tm1Jae}</strong></td>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Ngfr</td>
<td>nerve growth factor receptor (TNFR superfamily, member 16)</td>
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RESEARCH APPLICATIONS

Sensorineural Research
Apoptosis Research
Neurobiology Research

BASE PRICE
Starting at:
$2,595.00 Domestic price Cryo Recovery

Details

**Detailed Description**
Mice homozygous for the Ngfr^{tm1Jae} mutation are viable and fertile. They display a decreased cutaneous innervation by calcitonin gene-related peptide- and substance P-immunoreactive sensory fibers. Because of this decreased innervation they develop ulcers on their toes by 4 months of age. The toes become inflamed and progressively infected. There is also reduced sensitivity to heat in the extremities of these mice. Pineal glands lack sympathetic innervation and innervation to sweat glands on foot pads is either reduced or absent. Deficits in the peripheral nervous system were examined by looking at cellular responses of p75-deficient dorsal root ganglion (DRG) and superior cervical ganglion (SCG) neurons to different neurotrophins. p75-deficient DRG and SCG neurons displayed a 2- to 3-fold decreased sensitivity to NGF at embryonic day 15 and postnatal day 3, respectively. These ages coincide with the peak of naturally occurring cell death.

Development

Control Suggestions
Genotyping Protocols
High Resolution Melting: Ngr\textsuperscript{tm1Jae}
Standard PCR: Ngr\textsuperscript{tm1Jae}
Genotyping resources and troubleshooting

Breeding Considerations
The Ngr\textsuperscript{tm1Jae} strain is maintained by mating homozygous siblings. Homozygous mice may be ordered. The feet of these mice tend to become sore and to bleed because of the loss of sensory nerves. They need to be handled very carefully to minimize these problems. The lifespan is normal. Expected coat color from breeding: White Bellied Agouti

Additional Breeding and Husbandry Support

Appearance
white-bellied agouti
Related Genotype: A\textsuperscript{w}/A\textsuperscript{w}

Citation
When using the Ngr\textsuperscript{NGR} mouse strain in a publication, please cite the originating article(s) and include JAX stock #002124 in your Materials and Methods section.

Animal Health Reports
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</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Ngfr&lt;tm1Jae&gt;</td>
<td>$2,595.00</td>
</tr>
</tbody>
</table>

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.

**Payment Terms and Conditions**

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

**The Jackson Laboratory’s Genotype Promise**

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain’s phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project.

**Terms Of Use**

Terms of Use
General Terms and Conditions

**Additional Use Restrictions Apply**

**Use of MICE** by companies or for-profit entities requires a license prior to shipping.

**Licensing Information**

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

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**Animal Care and Use for SERVICES**

Consistent with the requirement for a written understanding regarding animal care and use, the JACKSON Animal Care and Use Committee will review the animal care and use protocol(s) associated with any SERVICES to be performed at JACKSON, and JACKSON shall have ultimate responsibility and authority for the care of animals while on site or in JACKSON custody.

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**Related Strains**

- All
- By Allele
- By Gene
- By Collection
ELLSWORTH FACILITY OFFICIALLY OPEN AND OPERATIONAL

Shipments have begun at our new facility, allowing increased access to JAX mouse models.