B6.129S4-Bdnf^{tm1Jae}\textsuperscript{J}

Stock No: 002266 | BDNF -

Congenic, Targeted Mutation

AVAILABLE

PLACE ORDER

Live mice available in varying quantities. Ask Customer Service for details.

Overview

Also Known As: BDNF\textsuperscript{-}

Mice homozygous for the Bdnf knock-out show degeneration in sensory ganglia, and may be useful in studies of neurotrophic factor defects, hearing defects, andnociception.

Donating Investigator

IMR Colony, The Jackson Laboratory
Bdnf<sup>tm1Jae</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>Bdnf</td>
<td>brain derived neurotrophic factor</td>
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**RESEARCH APPLICATIONS**

- Neurobiology Research
- Sensorineural Research
- Apoptosis Research

**BASE PRICE**

Starting at:

- $278.00 Domestic price for female
- 356.51 Domestic price for breeder pair

**Details**

**Detailed Description**

Mice heterozygous for the Bdnf<sup>tm1Jae</sup> mutation show about half normal levels of Bdnf mRNA, but appear normal. Mice homozygous for the Bdnf<sup>tm1Jae</sup> mutation are smaller than normal siblings and most die within the second postnatal week. They have defective coordination of movements and balance. They also exhibit head bobbing and spinning during periods of hyperactivity. There are rare survivors to adulthood. There is excessive degeneration in all sensory ganglia examined, including the vestibular ganglion. Motor neurons are not affected. BDNF can prevent death of central motor neurons and other neurons in vitro, but does not affect these in vivo.

**Control Suggestions**

**Selected References**

**Genetics**

**Bdnf<sup>tm1Jae</sup>**
Genotyping Protocols
Standard PCR: Bdnf<sup>tm1Jae</sup>
MELT: Bdnf<sup>tm1Jae</sup>
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations
The Bdnf<sup>tm1Jae</sup> strain is maintained by mating heterozygous mice to normal wildtype siblings. Heterozygous x wildtype breeder pairs are supplied. Expected coat color from breeding: Black

Additional Breeding and Husbandry Support

Mating System
+/+ sibling x Heterozygote

Citation

When using the BDNF mouse strain in a publication, please cite the originating article(s) and include JAX stock #002266 in your Materials and Methods section.

Facility Barrier Level Descriptions

F6829 (Standard)

Pricing & Availability
Live mice available in varying quantities. Ask Customer Service for details.

<table>
<thead>
<tr>
<th>Live Mouse</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Heterozygous for Bdnf&lt;sup&gt;tm1Jae&lt;/sup&gt;</td>
<td>$278.00</td>
</tr>
</tbody>
</table>
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