Also Known As: quivering 4 Jackson

Quivering (qv) mutants of the spectrin beta, non-erythrocytic 4 (Sptbn4) are characterized by progressive ataxia with hind limb paralysis, deafness and tremor. These quivering 4 Jackson mice carry a spontaneous mutation at the Sptbn4 locus characterized by an aberrant TREK-1 potassium channel.
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Sptbn4&lt;sub&gt;qv-4J&lt;/sub&gt;</td>
<td></td>
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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>Sptbn4</td>
<td>spectrin beta, non-erythrocytic 4</td>
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**RESEARCH APPLICATIONS**

**BASE PRICE**

Starting at:

$2,854.50 Domestic price Cryo Recovery

**Details**

**Detailed Description**

Beta-spectrin 4 is critical for the local organization of protein complexes throughout the nervous system. It targets ion channels and adapter proteins to axon initial segments and nodes of Ranvier in neurons, and beta-spectrin 4 dysfunction underlies ataxia and early death in mice. Beta-spectrin 4 is also co-localized with TREK-1 at the myocyte intercalated disc, associates with TREK-1 in the heart, and is required for TREK-1 membrane targeting. Mice expressing Sptbn4<sup>qv-4J</sup> lack TREK-1 binding and display aberrant TREK-1 membrane localization, decreased TREK-1 activity, delayed action potential repolarization, and arrhythmia without apparent defects in localization/function of other cardiac potassium channel subunits.

**Development**

**Selected References**

**Genetics**

**Sptbn4<sub>qv-4J</sub>**
Genotyping Protocols
Pyrosequencing: Spnb4<qv-4J>
Genotyping resources and troubleshooting

Citation
When using the quivering 4 Jackson mouse strain in a publication, please cite the originating article(s) and include JAX stock #002996 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

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Domestic
tTypically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

International

<table>
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<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Wild-type for Spnb4&lt;qv-4J&gt;</td>
<td>$2,854.50</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.

Cryo recovery 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.

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Terms Of Use

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General Terms and Conditions

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Email: TechTran@jax.org

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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains