Overview

Also Known As: SMN<sup>F7</sup>

These floxed mutant mice possess loxP sites flanking exon 7 of the Smn1 gene. This strain may be useful for generating conditional mutations in applications related to SMA or other neuromuscular degenerative diseases.
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td><strong>Smm1tm1Jme</strong></td>
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**Allele Type**
Targeted (Conditional ready (e.g. floxed), No functional change)

**Gene Symbol**
Smm1

**Gene Name**
Survival motor neuron 1

**RESEARCH APPLICATIONS**

Neurobiology Research
Research Tools

**BASE PRICE**
Starting at:

$2,595.00 Domestic price Cryo Recovery

**Details**

**Detailed Description**

Mice homozygous for this SMN$^{7}$ floxed allele are viable and fertile and do not display any gross physical or behavioral abnormalities. Mutant mice exhibit no transcript splicing defects. Cre-mediated recombination of the loxP-flanked sequences results in deletion of exon 7 of the targeted gene. As mutations of this exon are implicated in 95% of all human spinal muscular atrophy (SMA), these mice may be useful in studying SMA or other neuromuscular degenerative diseases.

When crossed to a strain expressing Cre recombinase in neurons (see Stock No. 005938, Stock No. 006297, and Stock No. 006663), this mutant mouse strain may be useful as a model of SMA.
When crossed to a strain expressing Cre recombinase in striated muscle fibers (see Stock No. 005936, Stock No. 006139, and Stock No. 006149), this mutant mouse strain may be useful as a model of SMA.

SMN<sup>F7</sup> mice are available on different genetic backgrounds (see Stock No. 006138 and Stock No. 006146). In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the SMN<sup>F7</sup> phenotype could vary from that originally described on a mixed genetic background. We will modify the strain description if necessary as published results become available.

Importation of this model was supported by the Spinal Muscular Atrophy Foundation. Creation and development was supported by the National Institute of Health and Medical Research of France (Inserm) and the Association Française contre les Myopathies (AFM). An additional help was provided by Families of SMA (U.S.A.) and Andrew’s Buddies (U.S.A.).

Genotyping Protocols
Standard PCR: Smn<sup>1<sup>tm1Jme</sup></sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, homozygous mice may be bred.
Additional Breeding and Husbandry Support
Citation
When using the G200 mouse strain in a publication, please cite the originating article(s) and include JAX stock #006138 in your Materials and Methods section.

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.

<table>
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<tr>
<th>Service</th>
<th>Genotype</th>
<th>Price</th>
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<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Smn1&lt;tm1Jme&gt;</td>
<td>$2,595.00</td>
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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.

Related Products and Services

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<tr>
<td>Frozen Mouse Embryo</td>
<td>$2,595.00 per straw or vial</td>
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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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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.
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Phone: 207-288-6470
Email: TechTran@jax.org

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**Related Strains**

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<td>By Gene</td>
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All Related Strains