

FVB.Cg-*Grm7*^{Tg(SMN2)^{89Ahmb}} *Smn1*^{tm1Msd}
 Tg(SMN2*delta7)4299Ahmb/2J
 Stock No: 007952

📌 Congenic, Targeted Mutation, Transgenic

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

PLACE ORDER

[Email](#) [Download PDF](#) [Help](#)

Mice that are homozygous for the targeted mutant *Smn1* allele and homozygous for the two transgenic alleles exhibit symptoms and neuropathology similar to patients afflicted with proximal spinal muscular atrophy (SMA). Triple homozygous mice fully congenic on the FVB/N genetic background (N10; Stock No. 007952) exhibit earlier mortality than the incipient congenic FVB/N triple homozygous colony (N6; Stock No. 005025).

Donating Investigator

IMR Colony, The Jackson Laboratory

READ MORE +

GENETIC OVERVIEW

Genetic Background Generation

Smn1^{tm1Msd}

Alele Type

Targeted (Reporter, Null/Knockout)

Gene Symbol

Smn1

Gene Name

survival motor neuron 1

Grm7^{Tg(SMN2)^{89Ahmb}}

Alele Type

Transgenic (Hypomorph, Inserted expressed sequence, Humanized sequence)

Tg(SMN2*delta7)4299Ahmb

Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools
Neurobiology Research
Developmental Biology Research

[VIEW ALL RESEARCH APPLICATIONS](#)

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

[VIEW PRICE LIST](#)

[- Details](#)

Important Note

FVB.SMND7;SMN2;Smn- mice are available with different amounts of backcrossing onto the FVB/N genetic background: FVB/NJ fully congenic FVB.SMND7;SMN2;Smn- mice are backcrossed ten generations (N10; Stock No. [007952](#)) while incipient congenic FVB.SMND7;SMN2;Smn- mice are backcrossed six generations (N6; Stock No. [005025](#)).

[- Detailed Description](#)

Triple homozygous mice fully congenic on the FVB/N genetic background (N10; Stock No. [007952](#)) exhibit earlier mortality than the incipient congenic FVB/N triple homozygous mice (N6; Stock No. [005025](#)). Specifically, the survival range is reduced from ~15-22 days to ~6-14 days [2013].

[+ Development](#)

[+ Expression Data](#)

[+ Control Suggestions](#)

⊖ Genetics

+ [Smn1^{tm1Msd}](#)

+ [Grm7^{Tg\(SMN2\)89Ahmb}](#)

+ [Tg\(SMN2*delta7\)4299Ahmb](#)

⊖ Disease/Phenotype

+ [Disease Terms](#)

+ [Research Areas By Phenotype](#)

+ [Mammalian Phenotype Terms by Genotype](#)

+ [References](#)

⊖ Technical Support

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

Separated PCR:[Smn1](#)

Standard PCR:[Grm7 Alternate1](#)

Probe:[Grm7-Probe](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

The *Smn1* null targeted mutation (*Smn1*^{tm1Msd}) on chromosome 13, the Tg(SMN2)89 transgene on chromosome 6, and the randomly inserted Tg(SMN2*delta7)4299Ahmb transgene are not linked and will segregate independently. Breeding pairs offered by The Jackson Laboratory Repository are homozygous for the two transgenes and heterozygous for *Smn1*^{tm1Msd}. These breeding pairs are phenotypically normal and do not exhibit symptoms of neuropathology. Offspring resulting from the mating of breeder pairs can possess the following genotypes:

1. Homozygous for both transgenes and homozygous for the targeted mutation (25%)
2. Homozygous for both transgenes and heterozygous for the targeted mutation (50%)
3. Homozygous for both transgenes and wildtype at the *Smn1* locus (25%)

Mice that are homozygous for both transgenes and homozygous for the targeted mutation will display the SMA-like phenotype. Mice homozygous for both transgenes and heterozygous for the targeted mutation will not display the SMA-like phenotype but can be mated with each other to generate additional affected mice. Mice homozygous for both transgenes and wildtype at the *Smn1* locus will also not exhibit an SMA-like phenotype but can be employed as control mice depending on the nature of the experiment.

Additional Breeding and Husbandry Support

Citation

When using the FVB.Cg-*Grm7*^{Tg(SMN2)89Ahmb} *Smn1*^{tm1Msd} Tg(SMN2*delta7)4299Ahmb/2J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #007952 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



Cryo
Recovery

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

Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

| SERVICE/PRODUCT | DESCRIPTION | PRICE |
|-------------------------------|--|------------|
| Cryo Recovery | Hemizygous for Tg(SMN2)89Ahmb, Heterozygous or wildtype for <i>Smn1</i> <tm1Msd>, Hemizygous for Tg(SMN2*delta7)4299Ahmb , | \$2,854.50 |

RELATED PRODUCTS AND SERVICES

| | | |
|-------------------------------------|---|-----------|
| Frozen Mouse Embryo | FVB.Cg- <i>Grm7</i> <Tg(SMN2)89Ahmb> <i>Smn1</i> <tm1Msd> Tg(SMN2*delta7)4299 | \$2595.00 |
|-------------------------------------|---|-----------|

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. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

Terms Of Use

TERMS OF USE

[General Terms and Conditions](#)

Q U E S T I O N S A B O U T T E R M S O F U S E

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

Related Strains

All

By Allele

By Gene

By Collection



DO YOU NEED BALB/c MICE?

Rely on JAX to provide the models you need, when you need them.

[LEARN MORE](#)



CONTACT



DONATE



SUBSCRIBE

[JAX HOME](#) [CAREERS](#) [LEGAL INFORMATION](#)

[RESEARCH CENTERS](#) [MOUSE GENOME INFORMATICS](#)

[MOUSE PHENOME DATABASE](#)

Leading the search for

TOMORROW'S CURES



©2021 THE JACKSON LABORATORY

Choose other country or region

[^](#) [E](#) [E](#) [E](#) [D](#) [B](#)

Did you find what you were looking for?

Yes No