The Jackson Laboratory

FVB.Cg-*Smn1*$^{tm3(SMN2/Smn1)Mrph}$/J

Stock No: **007964** | FVB.Smn^{Res}, FVB.Smn^{COIN}, Regeneron hybrid rescue allele FVB/NJ congenic background

Congenic, Targeted Mutation

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

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recombined state. As such, homozygous animals are embryonic lethal. This allele is engineered to revert to a fully functional *Smn1* allele upon Cre-mediated recombination. This mutant mouse strain may be useful in studies of Spinal Muscular Atrophy.

Donating Investigator

IMR Colony, The Jackson Laboratory

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GENETIC OVERVIEW

Genetic Background	Generation

Smn1$^{tm3(SMN2/Smn1)Mrph}$

Allele Type	Gene Symbol	Gene Name
Targeted (Conditional ready (e.g. floxed), Humanized sequence, No functional change)	*Smn1*	survival motor neuron 1

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Developmental Biology Research

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

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Details

Detailed Description

The Smn rescue allele (*Smn*^{Res}; also called Smn1 conditional inversion or Smn1 COIN) is a functional null in the non-recombined state. As such, homozygous animals are embryonic lethal. Prior to Cre recombination, no full-length SMN transcript is detected in somatic tissue by RT-PCR. No spontaneous inversion of the allele is reported in the absence of Cre recombinase. The *Smn*^{Res} allele is designed to revert to a fully functional SMN upon exposure to Cre recombinase. Specifically, Cre recombinase irreversibly inverts the fragment bordered by the *lox71* and *lox66* sites, and the resulting allele is "rescued" into a format that contains mouse Smn1 exons 1-7 and human SMN2 exon 8. Because the mouse Smn1 exon 8 is efficiently spliced, the majority of the mRNA from the Cre recombinase-induced rescue allele contains mouse Smn1 exon 7. This mutant mouse strain may be useful in studies of Spinal Muscular Atrophy.

Importation of this model was supported by the Spinal Muscular Atrophy Foundation.

Development

Control Suggestions

Selected References

Genetics

Smn1$^{tm3(SMN2/Smn1)Mrph}$

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Standard PCR:Smn1
Separated MCA:Smn1
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, these mice can be bred as heterozygotes. Homozygotes are embryonic lethal.

Additional Breeding and Husbandry Support

Citation

When using the FVB.Smn^{Res} , FVB.Smn^{COIN} , Regeneron hybrid rescue allele FVB/NJ congenic background mouse strain in a publication, please cite the originating article(s) and include JAX stock #007964 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.

Cryo
Recovery

Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or Wildtype for Smn1<tm3(SMN2/Smn1)Mrph>	$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB.Cg-Smn1<tm3(SMN2/Smn1)Mrph>/J	$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

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QUESTIONS ABOUT TERMS OF USE

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

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