

FVB/N-Tg(ACTA1-Serpina3n)1Jmol/J

Stock No: 028792

Coisogenic, Transgenic

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

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specific *ACTA1*/SKA promoter. When crossed to muscular dystrophy mouse models, the dystrophic disease phenotype is rescued.

Donating Investigator

Jeffery D. Molkentin, Cincinnati Children's Hospital

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(ACTA1-Serpina3n)1Jmol

Alele Type

Transgenic (Inserted expressed sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W P R I C E L I S T

Details

Detailed Description

Mouse models of muscular dystrophy show a compensatory increase in the protein encoded by the *Serpina3n* (serine (or cysteine) peptidase inhibitor, clade A, member 3N) gene after acute muscle tissue injury.

These healthy transgenic mice express mouse *Serpina3n* under the regulatory control of the human *ACTA1* (actin, alpha 1, skeletal muscle; also known as SKA) promoter. Expression has been demonstrated in fast skeletal muscles including the quadriceps, tibialis anterior, gastrocnemius, and flexor digitorum brevis. More slow/oxidative fiber-type muscles, such as the soleus and diaphragm, show lower levels of protein over-expression and the heart shows no transgene expression. Muscle histology appears normal at both 6 weeks and 10 months of age.

The transgene dramatically reduces skeletal muscle pathogenesis in both *Sgcd* (δ -sarcoglycan deficient; e.g. Stock No. 004582) and *Dmd*^{mdx} (dystrophin deficient) mouse models of muscular dystrophy. Muscle degeneration and fibrosis are mitigated, creatine kinase serum levels are reduced, running capacity is restored, and *in vivo* muscle membrane leakiness is reduced.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(ACTA1-Serpina3n)1Jmol

⊖ 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

Standard PCR: [Tg\(ACTA1-Serpina3n\)1Jmol-Alternate 2](#)
[Genotyping resources and troubleshooting](#)

Breeding Considerations

Hemizygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Mating System

Noncarrier x Hemizygote

Hemizygote x Noncarrier

Citation

When using the FVB/N-Tg(ACTA1-Serpina3n)1Jmol/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028792 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



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Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Hemizygous or Non carrier for Tg(ACTA1-Serpina3n)1Jmol	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB/N-Tg(ACTA1-Serpina3n)1Jmol/J Frozen Embryo	\$2595.00
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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

☰ Related Strains

- All
- By Allele
- By Gene
- By Collection




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