

FVB.129S2(B6)-Nr4a1^{tm1Jmi}/HzengJ

Stock No: **028205** | Nur77-/- (Fvb)

 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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growth, wound healing, angiogenesis and inflammation. Although the original analysis of this allele revealed no detectable transcript of any type from this gene in the thymus, findings by Koenis, 2018 (PMID [30111591](#)) indicate the presence of a transcript capable of producing a truncated N-terminal domain (NTD) peptide that can stabilize and activate [HIF1A](#) (hypoxia inducible factor 1, alpha subunit).

Donating Investigator

Huiyan Zeng, Beth Israel Deaconess Medical Center

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GENETIC OVERVIEW

Genetic Background

Generation

Nr4a1^{tm1Jmi}

Alele Type

Targeted (Not Specified)

Gene Symbol

Nr4a1

Gene Name

nuclear receptor subfamily 4, group A, member 1

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

Diabetes and Obesity Research

Metabolism Research

Internal/Organ 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

The orphan nuclear transcription factor encoded by the *Nr4a1* gene is involved in neuron development & maintenance, myofiber size and muscle mass, wound healing, progesterone receptor-mediated permeability responses in uterine embryo implantation, angiogenesis, anti-inflammation, and glucose homeostasis. These NGF1-B or Nur77 mutant mice carry a targeted mutation in which a PGK-NEO cassette disrupts exon 2. Mice homozygous for the allele and on a congenic FVB/N background are viable and fertile. The Donating Investigator reports that the congenic FVB/N background does not alter the phenotype observed in B6;129 mixed and congenic C57BL/6 *Nr4a1*^{tm1Jmi} mutant mice. On the C57BL/6 background, knock-out mice have greatly diminished angiogenic response to VEGF-A, histamine or serotonin induction, and are more susceptible to diet-induced obesity and insulin resistance.

Of note, although the original analysis of this allele revealed no detectable transcript of any type from this gene in the thymus, findings by Koenis, 2018 (PMID [30111591](#)) indicate the presence of a transcript capable of producing a truncated N-terminal domain (NTD) peptide that can stabilize and activate [HIF1A](#) (hypoxia inducible factor 1, alpha subunit). Neither the transcriptional nor the translational start of the gene are disrupted.

Development

Control Suggestions

Selected References

Genetics

Nr4a1^{tm1Jmi}

– 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:[Nr4a1-Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygotes.

[Additional Breeding and Husbandry Support](#)

Citation

When using the Nur77^{-/-}(Fvb) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028205 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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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Nr4a1<tm1Jmi>/Hzeng	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB.129S2(B6)-Nr4a1<tm1Jmi>/HzengJ Frozen Embryo	\$2595.00
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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. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

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