

C57BL/6N-Nr6a1^{tm1a(EUCOMM)Wtsi}/J

Stock No: **023804**

 **Coisogenic, Targeted Mutation**

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flanked by loxP sites. Homozygous embryos display morphological defects similar to those of *Nr6a1* conditional knockout animals, including reduced size, impaired neural tube closure, and failure to turn from the lordotic to the fetal position.

Donating Investigator

David Page, Whitehead Institute for Biomedical Research

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GENETIC OVERVIEW

Genetic Background

Generation

Nr6a1^{tm1a(EUCOMM)Wtsi}

Alele Type

Targeted (Conditional ready
(e.g. floxed), Reporter,
Null/Knockout)

Gene Symbol

Nr6a1

Gene Name

nuclear receptor subfamily 6, group A, member 1

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Developmental Biology 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

Nr6a1 (nuclear receptor subfamily 6, group A, member 1; also called *Gcnf*) is expressed in fetal ovarian cells, peaking at embryonic day 14.5 (E14.5). Both somatic stem cells and embryonic stem cells require NR6A1 to silence the activities of *Pou5f1* (POU domain, class 5, transcription factor 1; also called *Oct4*) and *Nanog* (Nanog homeobox) in the transition from pluripotent to differentiated cell state. Interestingly, the gene is not required for this process in fetal ovarian germ cells and it is not required for initiation of meiosis and oogenesis.

This "*Gcnf*" allele carries an FRT-flanked IRES-lacZ reporter (expression unconfirmed) and neomycin resistance cassette. In addition, exon 7 of the *Nr6a1* gene, encoding the ligand binding domain, is flanked by loxP sites. Homozygous embryos display morphological defects similar to those of *Nr6a1* conditional knockout animals, including reduced size, impaired neural tube closure, and failure to turn from the lordotic to the fetal position. Embryo-wide expression of *Oct4* (*Pou5f1*) is increased, as assayed by RT-qPCR. The homozygous allele results in prenatal lethality.

A floxed strain lacking the IRES-lacZ reporter and neomycin drug cassettes was derived from this mutant line via crosses with a Flp strain (see Stock No. [023803](#)).

Development

Expression Data

Control Suggestions

Selected References

Genetics

Nr6a1^{tm1a(EUCOMM)Wtsi}

⊖ 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:[Nr6a1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Heterozygotes are viable and fertile, but homozygotes are embryonic lethal.

[Additional Breeding and Husbandry Support](#)

Citation

When using the C57BL/6N-*Nr6a1*^{tm1a(EUCOMM)Wtsi}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #023804 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

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 NOT-FOR-PROFIT & ACADEMIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Nr6a1<tm1a(EUCOMM)Wtsi>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	C57BL/6N-Nr6a1<tm1a(EUCOMM)Wtsi>/J Frozen Embryo	\$2595.00
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