

B6;129-Tcf4^{tm1Zhu} /J

Stock No: **013598**

 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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Donating Investigator

Yuan Zhuang, Duke University Medical Center

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GENETIC OVERVIEW

Genetic Background

Generation

Tcf4^{tm1Zhu}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Tcf4

transcription factor 4

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research

Research Tools

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

A targeting vector was designed to replace the C-terminus DNA-binding domain of transcription factor 4 (*Tcf4* or *E2-2*) gene with a neomycin (neo) selection cassette. Homozygotes are born at a low frequency and die within the first week of life. *E2-2* is a widely expressed E2A-related helix-loop-helix (HLH) protein required for the generation of normal numbers of pro-B cells in mouse embryos. While homozygous *E2-2* mutant embryos are capable of making B cells, they produce only half as many as wildtype. When crossed to mice containing a (*Atoh1*)-lacZ transgene, β -galactosidase staining is evident in anterior extramural migratory stream (AES) cells which accumulate in the region lateral to the pontine nucleus. The resulting mice exhibit a reduction in size of the pontine nucleus and a lack of migration of neuronal precursors to the region of the pontine nucleus. Mice heterozygous for the mutation are viable, fertile, and normal in size. This strain may be useful for studying B cell development, activation of differentiation of a subset of neural progenitors, and neurodevelopment associated with Pitt-Hopkins syndrome (PHS).

Development

Control Suggestions

Selected References

Genetics

Tcf4^{tm1Zhu}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

- 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 MCA:[Tcf4](#)

Separated PCR:[Tcf4](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony or B6129SF2/J mice (Stock No. [101043](#)).

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6;129-*Tcf4*^{tm1Zhu}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #013598 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

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6;129-Tcf4<tm1Zhu>/J

\$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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Email: TechTran@jax.org[Related Strains](#)

All

By Allele

By Gene

By Collection



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