

129S/SvEvTac-*Hcn1*^{tm2Kndl}/J

Stock No: 028301 | HCN1 ko

 Coisogenic, 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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strain (HCN1 ko). This mutant mouse strain may be useful in studies of learning, memory, neurophysiology, and Parkinson's Disease.

Donating Investigator

Eric R Kandel, Columbia University

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GENETIC OVERVIEW

Genetic Background

Generation

Hcn1^{tm2Kndl}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Hcn1

Gene Name

hyperpolarization-activated, cyclic nucleotide-gated K+ 1

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Developmental Biology Research

Cell 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

The exon encoding the pore region and S6 transmembrane domain of the *Hcn1* (hyperpolarization-activated, cyclic nucleotide-gated K⁺ 1) gene has been excised in this knockout strain (HCN1 ko). Homozygous mice are viable, fertile, and normal in size.

HCN1 ion channels are essential to pacemaker currents in heart and in neurons, where they regulate dendritic excitability. These mice exhibit impaired learning capacity in visible platform swimming water maze task and rotorod test, and abnormal eye blink conditioning response. Purkinje cell electrophysiology is abnormal. This mutant mouse strain may be useful in studies of learning, memory, neurophysiology, and Parkinson's Disease.

Development

Control Suggestions

Selected References

Genetics

Hcn1^{tm2Kndl}

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:[Hcn1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygotes and heterozygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Citation

When using the HCN1 ko mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028301 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.

DomesticInternational

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT

DESCRIPTION

PRICE

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

129S/SvEvTac-Hcn1<tm2Kndl>/J

\$2595.00

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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.

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TERMS OF USE

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[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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