The Jackson Laboratory

B6;129S-*Barhl1* ^{tm1Xia} /J
Stock No: **013193**
Targeted Mutation

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

PLACE ORDER

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mice may be useful as a *lacZ* reporter for BARHL1 expression, and for studying age-related human deafness disorders.

Donating Investigator

Mengqing Xiang, University of Med. Dent. New Jersey

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GENETIC OVERVIEW

Genetic Background	Generation

Barhl1^{tm1Xia}

Allele Type	Gene Symbol	Gene Name
Targeted (Reporter, Null/Knockout)	*Barhl1*	BarH like homeobox 1

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Sensorineural Research
Dermatology Research

VIEW ALL RESEARCH APPLICATION

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

In this strain, the entire coding region of the endogenous BarH-like 1 (*Barhl1*) gene is replaced with a *lacZ* (β-galactosidase) reporter gene and a *loxP*-flanked neomycin resistance (neo) cassette, abolishing gene function. Homozygous mice are viable, fertile, and normal in size, with β-gal staining in *Barhl1* expressing tissues. *LacZ* expression in embryos and neonates is evident in all hair cells, but is more abundantly observed in the cochlear outer hair cells. *LacZ* expression in adults is strong in the outer hair cells, and weak in the inner and vestibular hair cells, with persistent expression in hair cells of the organ of Corti. These mice exhibit age-related progressive degeneration of both cochlear outer and cochlear inner hair cells in the organ of Corti, resulting in hearing loss. The progression is apical-to-basal for outer hair cell and basal-to-apical for inner hair cells. *Barhl1*$^{-/-}$ mice have elevated auditory brainstem response (ABR) thresholds at all frequencies tested while some did not respond to any auditory stimuli. 2 week old *Barhl1*$^{-/-}$ mice have a reduced startle reflex and exhibit a loss of low-frequency hearing, while 3 month old mutants lose high-frequency hearing. By 6 months of age the mutants exhibit near complete loss of outer hair cells, with complete loss by 10 months, rendering the mice deaf. These *Barhl1*$^{-/-}$ mutant mice may be useful as a *lacZ* reporter for BARHL1 expression, and for studying age-related human deafness disorders.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Barhl1^{tm1Xia}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Separated PCR:BarhI1
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred.

Additional Breeding and Husbandry Support

Citation

When using the B6;129S-*Barhl1*^{tm1Xia}/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #013193 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

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Domestic Internatic

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING		
SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Barhl1<tm1Xia>	$2,854.50

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	B6;129S-Barhl1<tm1Xia>/J	$2595.00

PAYMENT TERMS AND CONDITIONS

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.

Terms Of Use

TERMS OF USE

General Terms and Conditions

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LICENSING INFORMATION

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Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

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Did you find what you were looking for?

Yes No