The Jackson Laboratory

129S6.129X1(B6)-*Syt4* ^{tm1Hahe} /J

Stock No: **012400**

Congenic, 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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Donating Investigator

Edwin R Chapman, University of Wisconsin, Madison

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GENETIC OVERVIEW

Genetic Background	Generation

Syt4^{tm1Hahe}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	*Syt4*	synaptotagmin IV

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Research Tools

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. No gene product (mRNA) is detected by Northern blot analysis of total brain RNA. Homozygotes exhibit impaired locomotor coordination (reduced performance on accelerating rotarod), diminished contextual fear conditioning, impaired social transmission of food preference, enhanced long-term potentiation (LTP) and hyperactivity. Anxiety-like behavior and depression-like behavior is decreased in homozygous animals. Posterior pituitary nerve terminals isolated from homozygotes exhibit lower Ca2+ current density than wildtype controls, decreased exocytosis and accelerated endocytosis with high Ca2+ entry, and increased exocytosis with low Ca2+ entry. Hippocampal neurons isolated from homozygotes display increased rate of synpatic vesicle exocytosis from presynaptic terminals. Inner hair cells from homozygotes have abnormal exocytotic Ca2+ dependence. Mice that are homozygous for this targeted mutation may be useful in studies of learning, behavior and synaptic function and plasticity.

Development

Control Suggestions

Selected References

Genetics

Syt4^{tm1Hahe}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
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 129S6.129X1(B6)-*Syt4*^{tm1Hahe}/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #012400 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 | **Internatic**

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Syt4<tm1Hrh>	$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	129S6.129X1(B6)-Syt4<tm1Hahe>/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

QUESTIONS ABOUT TERMS OF USE

ADDITIONAL USE RESTRICTIONS APPLY

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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The Jackson Laboratory

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Yes No