

B6.129S4-Shank1^{tm1Shng} /J

Stock No: **008108**

 Congenic, 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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impaired. This strain may be useful in studies of cognitive processes, a feature that may be relevant to human autism spectrum disorders.

Donating Investigator

Morgan Sheng, Massachusetts Institute of Technology

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GENETIC OVERVIEW

Genetic Background

Generation

Shank1^{tm1Shng}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Shank1

Gene Name

SH3 and multiple ankyrin repeat domains 1

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Reproductive 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

Homozygous targeted mutant mice show altered postsynaptic density (PSD) protein composition (depletion of Shank-associated proteins guanylate kinase-associated protein (GKAP) and homer homolog 1 (HOMER)), reduced size of dendritic spines, smaller and thinner PSD's, and weaker basal synaptic transmission in the brain. Synaptic plasticity, including long-term potentiation (LTP), long-term depression (LTD), and late-phase LTP (L-LTP) is normal. Behaviorally, they have increased anxiety-related behavior and impaired contextual fear memory. Homozygous targeted mutant mice have enhanced performance in a spatial learning task, however long-term memory retention is impaired. This strain may be useful in studies of cognitive processes, a feature that may be relevant to human autism spectrum disorders.

Development

Selected References

Genetics

Shank1^{tm1Shng}

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, heterozygotes may be bred. Homozygous females have decreased fertility and rarely give birth to litters; when produced, litters are small and pups do not survive to weaning.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129S4-*Shank1*^{tm1Shng}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008108 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
Cryo Recovery	Heterozygous or Wild-type for <i>Shank1</i> <tm1Shng>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129S4- <i>Shank1</i> <tm1Shng>/J Frozen Embryo	\$2595.00
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Q U E S T I O N S A B O U T T E R M S O F U S E

LICENSING INFORMATION

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Email: TechTran@jax.org

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