B6(C3H)-*Sod1* ^{m1H} /J

Stock No: **020440**

Chemically Induced Mutation

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

PLACE ORDER

neuron disease. They are a useful tool for separating the effects of central neuronal death from the peripheral distal neuropathy.

Donating Investigator

Elizabeth MC Fisher, UCL Institute of Neurology

READ MORE +

GENETIC OVERVIEW

Genetic Background	Generation

Sod1^{m1H}

Allele Type	Gene Symbol	Gene Name
Chemically induced (ENU)	*Sod1*	superoxide dismutase 1, soluble

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Developmental Biology Research

VIEW ALL RESEARCH APPLICATION

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

These *Sod1*^{D83G} ENU-induced mutant mice possess a missense mutation in exon 3 of the superoxide dismutase 1 (*Sod1*) gene. SOD1 is a widely expressed isozyme responsible for destroying free superoxide radicals. SOD1 mutations, including SOD1*D83G, are known to cause Lou Gehrig's disease (Amyotrophic lateral sclerosis; ALS)/motor neuron disease (MND). These mutant mice produce the same mRNA levels as wildtype mice but contain decreased amounts of mutant SOD1 protein, leading to a dose dependant decrease in dismuatase activity. Homozygotes mice are not produced in a Mendelian ratio. They develop a degeneration of the lower and upper motor neurons between 6 and 15 weeks of age. This neuronal cell death ceases in adulthood and the mice do not become paralyzed. However, motor ability continues to deteriorate after 15 weeks of age in homozygous mutants. . This motor dysfunction is underlined by a progressive distal denervation of the neuromuscular junctions of the extensor digitorum longus hindlimb muscle between 15 and 52 weeks of age, leading to progressive peripheral neuropathy. These mice have a reduced life span, and they develop liver tumors, tremors, reduced pelvic elevation, significant sensory deficits. Heterozygotes are viable and fertile, and have a phenotype similar to wildtype littermates, except for in cage motor ability.

Development

Control Suggestions

Selected References

Genetics

Sod1^{m1H}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Sanger sequencing:Sod1
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. 000664). Homozygous mice are not born at mendelian ratios, and develop peripheral neuropathy as adults.

Additional Breeding and Husbandry Support

Citation
When using the B6(C3H)-*Sod1*^{m1H}/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #020440 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 wildtype for Sod1<m1H>	$2,854.50

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 requires an agreement prior to shipping.

LICENSING INFORMATION

Phone: 207-288-6470
Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection