

B6.129P2-Senp1^{Gt(XG001)Byg}/J

Stock No: **024090**

 Congenic, Gene Trap

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

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Donating Investigator

Edward T.H. Yeh, University of Missouri

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GENETIC OVERVIEW

Genetic Background

Generation

Senp1^{Gt(XG001)Byg}

Alele Type

Gene trapped (Reporter,
Null/Knockout)

Gene Symbol

Senp1

Gene Name

SUMO1/sentrin specific peptidase 1

VIEW GENETICS

RESEARCH APPLICATIONS

Hematological Research

Developmental 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

SUMO1/sentrin specific peptidase 1 (SEN1) has de-SUMOylation function (deconjugates sumoylated proteins) and is involved in processes such as nuclear transport, posttranslational modification, transcriptional regulation, apoptosis, and protein stability. These mice carry a gene trap mutation of the *Senp1* (SUMO/sentrin specific peptidase 1) gene, which results in expression of a beta-geo/SEN1 truncated protein that lacks the C terminal catalytic domain. Mice that are heterozygous for the targeted mutation are viable and fertile. Homozygotes are not viable, with most dying before E15. A truncated transcript is detected by RT-PCR and Western blot analysis of homozygous embryos. Homozygous embryos are severely anemic at E12.5 to E15.5, with decreased number of peripheral red blood cells (more than 75% fewer erythrocytes compared to wildtype) and fewer liver erythropoietic foci. There is an increase of apoptotic erythroid precursor cells in the fetal liver. During backcrossing, the Y chromosome may not have been fixed to the C57BL/6J genetic background.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Senp1^{Gt(XG001)Byg}

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:[Senp1-Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, these mice can be bred as heterozygotes. Homozygotes are not viable.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129P2-*Senp1*^{Gt(XG001)Byg}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #024090 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 Senp1<Gt(XG001)Byg>

\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6.129P2-Senp1<Gt(XG001)Byg>/J Frozen Embryo

\$2595.00

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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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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

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



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