

STOCK *Ptpn11*^{tm1.1Wbm} /J

Stock No: 025758

 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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Donating Investigator

Walter Birchmeier, Max-Delbrueck-Center for Mol. Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

Ptpn11^{tm1.1Wbm}

Alele Type

Targeted (Conditional ready
(e.g. floxed), No functional
change)

Gene Symbol

Ptpn11

Gene Name

protein tyrosine phosphatase, non-receptor type 11

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Developmental Biology Research

Research Tools

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

These *SHP2^{fl/fl}* mutant mice possess *loxP* sites flanking exons 3-4 of the protein tyrosine phosphatase, non-receptor type 11 (*Ptpn11*) gene. PTPN11 encodes SHP2, which is implicated in tumor formation and regulates cell migration, proliferation, survival, and differentiation, epithelial-mesenchymal-transition (EMT), and senescence. Mutations in this gene have been associated with Noonan and Leopard syndromes, characterized by cardiac disease, and craniofacial, brain, and skin abnormalities. Mice that are homozygous for this allele are viable and fertile. When bred to mice that express tissue-specific Cre recombinase, resulting offspring will have exons 3-4 deleted in the *cre*-expressing tissues.

For example, when bred to STOCK Tg(Wnt1-cre)11Rth/J mice (Stock No. [003829](#)) expressing Cre Recombinase in neural crest cells, resulting homozygous mice were embryonic lethal beginning at E13.5 and have decreased numbers of Schwann cells and neural crest cells, and have defects in axon outgrowth and myelination. They also exhibit craniofacial and pigmentation abnormalities.

When bred to FVB(Cg)-Tg(Dhh-cre)1Mejr/J mice (Stock No. [012929](#)) expressing Cre Recombinase in Schwann cells, resulting mice have decreased numbers of Schwann cells and defects in myelination.

Development

Control Suggestions

Selected References

Genetics

Ptpn11^{tm1.1Wbm}

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:[Ptpn11](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

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

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Citation

When using the STOCK *Ptpn11*^{tm1.1Wbm}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #025758 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.

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for P ^{tm1.1Wbm}	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	STOCK P ^{tm1.1Wbm} /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

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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