FVB.C-*Prdm16* ^{csp1}/J

Stock No: **013100** | cleft secondary palate 1, line 27

Chemically Induced Mutation, Congenic

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

PLACE ORDER

containing 16 (*Prdm16*) gene, resulting in an absent exon 7 and early termination within exon 8. *Csp* mice produce a truncated Prdm16 protein. These mice may be useful for studying palate formation and clefting disorders, such as non-syndromic CP (NSCP) and PRS-like CP.

Donating Investigator

David Beier, Harvard

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GENETIC OVERVIEW

Genetic Background	Generation

Prdm16^{csp1}

Allele Type	Gene Symbol	Gene Name
Chemically induced (ENU) (Hypomorph)	*Prdm16*	PR domain containing 16

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Mice heterozygous for the *csp1* ENU-induced mutation, are viable, fertile, and normal in size. Homozygous mutants exhibit the cleft palate (CP) phenotype and perinatal lethality with respiratory failure. The occurrence of the CP phenotype in homozygous *csp1* mice drops to 9% after backcrossing onto the C57BL/6J background for four generations, although 93% of these mice still die shortly after birth and still exhibit respiratory failure. Approximately 6% of heterozygous mutant mice exhibit the (CP) phenotype. These *csp1* mice possess a C to A mutation within intron 6 of the PR domain containing 16 (*Prdm16*) gene, resulting in vairable absence of exon 7 and early termination within exon 8. It is unclear if this truncated PRDM16 protein is stable in *csp1*. The CP phenotype of these *csp1* mice is exhibited by micrognathia and failed palate shelf elevation due to physical obstruction by the tongue, resembling human Pierre Robin sequence (PRS)-like cleft secondary palate. Abnormalities in other non-craniofacial structures are evident including choroid plexus hypoplasia in the brain ventricles, reduction in heart ventricle and lung sizes, and abnormal retinal folds. This strain may be useful for studying palate formation and clefting disorders, such as non-syndromic CP (NSCP) and PRS-like CP.

Development

Control Suggestions

Selected References

Genetics

Prdm16^{csp1}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Pyrosequencing:Prdm16
Sanger sequencing:Prdm16-SEQ
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony or to FVB/NJ inbred mice (Stock No. 001800).

The donating investigator confirms perinatal lethality in all homozygotes due to cleft palate phenotype. The occurrence drops to 9% after backcrossing onto the C57BL/6J background for four generations, although 93% of these mice still die shortly after birth due to respiratory failure.

Additional Breeding and Husbandry Support

Citation

When using the cleft secondary palate 1, line 27 mouse strain in a publication, please cite the originating article(s) and include JAX stock #013100 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 Prdm16<csp1>	$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB.C-Prdm16<csp1>/J Frozen Embryo	$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.

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TERMS OF USE

General Terms and Conditions

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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

TOMORROW'S CURES

Choose other country or region

Did you find what you were looking for?

Yes No