



B 6 . 1 29d-k 15^{Joez} / J

Stock No: 030523 | Cdkl5 floxed

Congenic, Targeted Mutation



CRYO RECOVERY

P L A C E O R D E R

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

Overview

Also Known As: Cdkl5 floxed

Cdkl5 floxed mice contain *loxP* sites flanking exon 6 the X-linked cyclin-dependent kinase-like 5 (*Cdkl5*) gene, making them useful when studying neurodevelopmental disorders such as Rett syndrome, autism spectrum disorders, and early infantile epileptic encephalopathy.

Donating Investigator

Zhaolan (Joe) Zhou, University of Pennsylvania

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GENETIC OVERVIEW

Genetic Background

Generation

Cdkl5^{tm1.2Joz}

Allele Type

Gene Symbol

Gene Name

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

Cdkl5

cyclin-dependent kinase-like 5

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

Developmental Biology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Cyclin-dependent kinase-like 5 (*Cdkl5*) is an X-linked gene encoding a serine/threonine kinase that is highly expressed in the brain. Genetic mutations that disrupt CDKL5 function have been found in humans with neurodevelopmental disorders including atypical Rett syndrome (RTT), autism spectrum disorders (ASDs), and early infantile epileptic encephalopathy 2 (EIEE2). These individuals, classified under CDKL5 Disorder for the common genetic defect, are characterized by early-onset seizures, intellectual disability, and autistic features.

Cdkl5 floxed mice contain *loxP* sites flanking exon 6 of the X-linked cyclin-dependent kinase-like 5 (*Cdkl5*) gene. Cre Recombinase-

dependent removal of murine exon 6, corresponding to exon 7 of human *CDKL5*, mimics a splice mutation found in humans that results in the skipping of exon 7, generating a premature stop codon and early truncation CDKL5 in its N-terminal kinase domain. For example, when bred to B6.FVB-Tg(Ella-cre)C5379Lmgd/J mice (Stock No. [003724](#)), male carriers, lacking CDKL5 expression, show autistic-like behavioral abnormalities, hyperactivity, motor impairments, decreased anxiety, deficits in social interaction, and impaired learning and memory with absence of spontaneous seizures. They also exhibit deficits in neural circuit communication.

Of note, the knock-out version of this allele is available as Stock No. [021967](#).

+ Development

+ Control Suggestions

+ Selected References

- Genetics

+ *Cdkl5*^{tm1.2Joez}

- Disease/Phenotype

+ Disease Terms

+ Research Areas By Genotype

+ Mammalian Phenotype Terms by Genotype

+ References

- Technical Support

T E C H N I C A L S P O K E E C H A T

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: *Cdkl5*^{tm1.2Joez}

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous females may be bred to hemizygous males. Mutation is X-linked.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Hemizygote

Citation

When using the *Cdkl5* floxed mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #030523 in your Materials and Methods section.

[Animal Health Reports](#)

[Facility Barrier Level Descriptions](#)

➔ 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	GENOTYPE	PRICE
Cryo Recovery	Females will be heterozygous for Cdk15^{tm1.2Joez} and males will be wildtype.	\$2,854.50

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

Frozen Mouse Embryo	B6.129-Cdk15^{tm1.2Joez}/J Frozen Embryo	\$2595.00
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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.

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By Gene

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