



B 6 (C g p-k 15^{Joez} / J

Stock No: 028856 | Cdk15^{R59X}

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: Cdk15^{R59X}

Cdk15^{R59X} knock-in mice, carrying a nonsense mutation at arginine 59 of *Cdk15* and are useful when studying neurodevelopmental disorders including atypical Rett syndrome, autism spectrum disorders, and early infantile epileptic encephalopathy 2.

Donating Investigator

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GENETIC OVERVIEW

Genetic Background Generation

Cdkl5^{tm2.1Joez}

| Allele Type | Gene Symbol | Gene Name |
|-------------------------------|--------------|--------------------------------|
| Targeted (Humanized sequence) | <i>Cdkl5</i> | cyclin-dependent kinase-like 5 |

VIEW GENETICS

RESEARCH APPLICATIONS

Cell Biology Research
Neurobiology Research
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^{R59X} knock-in mice, carrying a nonsense mutation at arginine 59 of *Cdkl5*, were developed to mimic exactly the same mutation found in patients with CDKL5 disorder. R59X leads to an early truncation at the N-terminal kinase domain of CDKL5, resulting in a loss-of-function. Male carriers show hyperactivity, motor impairments, and deficits in social interaction, learning and memory, with the absence of spontaneous seizures. Homozygous females and hemizygous males are viable but are poor breeders. When maintaining a live colony, heterozygous females may be bred to wildtype males.

[+ Development](#)

[+ Control Suggestions](#)

[+ Selected References](#)

[- Genetics](#)

[+ *Cdkl5^{tm2.1Joez}*](#)

[- 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 P O R T 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

Sanger sequencing: [Cdkl5^{tm2.1Joez}](#)

End Point Analysis: [Cdkl5^{tm2.1Joez} EP](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygous females and hemizygous males are viable but are poor breeders. When maintaining a live colony, heterozygous females may be bred to wildtype males.

[Additional Breeding and Husbandry Support](#)

Citation

When using the [Cdkl5^{R59X}](#) mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028856 in your

Materials and Methods section.
[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 | GENOTYPE | PRICE |
|---------------|---|------------|
| Cryo Recovery | Heterozygous females or wildtype males for Cdkl5<tm2.1Joez> | \$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.

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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Terms of Use

[General Terms and Conditions](#)

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Licensing Information

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