

## STOCK Tg(dlx5a-cre)1Mekk/J

Stock No: 008199 | Dlx5/6-Cre

 Transgenic

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*dlx5a/dlx6a* genes and may be useful in generating specific deletions of floxed alleles in GABAergic in forebrain and other brain regions.

### Donating Investigator

Marc Ekker, University of Ottawa

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## GENETIC OVERVIEW

Genetic Background

Generation

### Tg(dlx5a-cre)1Mekk

#### Alele Type

Transgenic (Recombinase-expressing)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Neurobiology 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

Homozygous *Dlx5/6-Cre* transgenic mice are viable and fertile. Expression of Cre recombinase (Cre) is directed to differentiating and migrating forebrain GABAergic neurons during embryonic development by the *I56i* and *I56ii* enhancers from the zebrafish *dlx5a/dlx6a* intergenic region (with the 5' promoter region of zebrafish *dlx6a* in place to increase the activity of the intergenic enhancers rather than direct tissue-specific expression). When *Dlx5/6-Cre* transgenic mice are bred with mice containing a *loxP*-flanked sequence, Cre-mediated recombination will result in deletion of the floxed sequence in the offspring. These *Dlx5/6-Cre* transgenic mice may be useful in generating specific deletions of floxed alleles in GABAergic neurons in forebrain and other brain regions.

[Luo et al. 2020 Neuron 106:37](#) Table 1 shows germline recombination in offspring (F2) of Cre;floxed double mutant (F1) mice bred to floxed and/or wildtype mice. The authors also note that in general, the frequency of recombination in Cre;floxed double mutant germline cells appears to be considerably higher than in zygotes produced by breeding Cre mice to floxed mice.

This reports that *Dlx5/6-Cre*;floxed double mutant females bred to floxed and/or wildtype males produced some offspring with germline deletion of the floxed allele [observed from several cohorts (including up to 85.3% (29/34) of Cre negative offspring)]. As such, for Cre-lox experiments and to avoid/minimize germline deletion of the floxed allele, researchers may consider breeding *Dlx5/6-Cre* males to floxed females.

If the recombinase activity pattern of this allele is further characterized by the Genetic Resource Science group at The Jackson Laboratory, such findings will be reported on the [Mouse Genome Informatics \(MGI\) Allele Detail entry](#). For endogenous mouse gene expression, information may also be found searching the [MGI Recombinase Activity](#) and [MGI Gene Expression + Recombinase Activity Comparison Matrix](#).

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### Tg(*dlx5a-cre*)1Mekk

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## – Disease/Phenotype

+ [Disease Terms](#)

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+ [Research Areas By Phenotype](#)

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+ [Mammalian Phenotype Terms by Genotype](#)

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+ [References](#)

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## – 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: [Tg\(dlx6a-cre\)1Mekk](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygotes.

For Cre-lox experiments and to avoid/minimize germline deletion of the floxed allele, researchers may consider breeding Dlx5/6-Cre males to floxed females. See Detailed Description for more details.

[Additional Breeding and Husbandry Support](#)

### Mating System

Noncarrier x Hemizygote

### Citation

When using the Dlx5/6-Cre mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008199 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](#)*

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## 🔻 Pricing & Availability



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Recovery

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### Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

#### CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Hemizygous or non-carrier for Tg(dlx6a-cre)1Mekk	\$2,854.50

#### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	STOCK Tg(dlx5a-cre)1Mekk/J Frozen Embryo	\$2595.00
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