

**B6.129S4(FVB)-Drd2<sup>tm1.1Mrub</sup> /J**

Stock No: **020631** | Drd2<sup>loxP</sup>

 Congenic, Targeted Mutation

Live mice available in varying quantities. Ask Customer Service for details.

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studying dopamine autoreceptor inhibitory control in dopaminergic neurotransmission.

### Donating Investigator

Marcelo Rubinstein, Universidad de Buenos Aires

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## GENETIC OVERVIEW

### Genetic Background

### Generation

N10+pN1F14  
(2020-01-20 00:00:00)

*Drd2<sup>tm1.1Mrub</sup>*

### Alele Type

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

### Gene Symbol

*Drd2*

### Gene Name

dopamine receptor D2

VIEW GENETICS

## RESEARCH APPLICATIONS

Neurobiology Research  
Research Tools

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$255.00 Domestic price for female 4-week

V I E W   P R I C E   L I S T

### Details

#### Detailed Description

These *Drd2*<sup>loxP/loxP</sup> mice possess *loxP* sites flanking exon 2 of the dopamine receptor D2 (*Drd2*) gene. Mice that are homozygous for this allele are viable and fertile. D2 receptors are G-protein coupled receptors located on postsynaptic and presynaptic dopaminergic neurons which inhibit adenylyl cyclase activity. Dopamine (DA) stimulation of presynaptic D2 receptors (autoreceptors) induces a negative feedback regulation that reduces DA neuron firing, DA synthesis and DA release. Defects in DA neurons have been associated with Parkinson's disease, schizophrenia, attention-deficit and hyperactivity disorder, and compulsive drug abuse. When these mutant mice are bred to mice that express Cre recombinase, resulting offspring will have exon 2 deleted in *cre*-expressing tissues.

For example, when crossed to B6.SJL-*Slc6a3*<sup>tm1.1(cre)Bkmn</sup>/J mice (Stock No. [006660](#)) expressing Cre recombinase in midbrain DA neurons, resulting *AutoDrd2KO* mice lack specifically D2 autoreceptors that display elevated DA synthesis and release, hyperlocomotion and supersensitivity to the psychomotor effects of cocaine.

When bred to B6.Cg-Tg(Nes-cre)1Kln/J (Stock No. [003771](#)) expressing *Cre* in the nervous system, the resulting offspring display fewer somatotropes, reduced body size and weight, reduced pituitary growth hormone and IGF1 levels, low levels of major urinary proteins and their urine fails to elicit aggression and dominance from control males.

#### Development

#### Control Suggestions

#### Selected References

### Genetics

#### *Drd2*<sup>tm1.1Mrub</sup>

## ⊖ 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

Probe:[Drd2 PROBE-Alternate 1](#)

Standard PCR:[Drd2](#)

[Genotyping resources and troubleshooting](#)

### Dietary Information

New Diet as of March 2015: Lab Diet® 5K0Q (6% fat)

### Breeding Considerations

When maintaining a live colony mice homozygous for the floxed allele may be bred together.

### [Additional Breeding and Husbandry Support](#)

#### Mating System

Homozygote x Homozygote

#### Citation

When using the  $Drd2^{loxP}$  mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #020631 in your Materials and Methods section.

### Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX10 \(Standard\)](#)

## ⊖ Pricing & Availability



Live mice available in varying quantities. Ask Customer Service for details.

Available

# Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

LIVE MOUSE			
AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
5 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
6 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
7 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
8 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
9 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
10 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
11 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
12 weeks	Female	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00
	Male	Homozygous for Drd2 <sup>tm1.1Mrub</sup>	\$255.00

## RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129S4(FVB)-Drd2 <sup>tm1.1Mrub</sup> /J Frozen Embryo	\$2595.00
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## PAYMENT TERMS AND CONDITIONS

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### TERMS OF USE

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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](mailto:TechTran@jax.org)

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## ☰ Related Strains

All

By Allele

By Gene

By Collection






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