

B6.SJL-Slc6a3^{tm1.1(cre)Bkmn} /J

Stock No: **006660** | DAT IRESc^{re}

 Congenic, Targeted Mutation

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

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neurons, such as drug addiction, Parkinson's disease and Attention Deficit-Hyperactivity Disorder (ADHD).

Donating Investigator

Cristina M Backman, National Institute on Drug Abuse (NIH)

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GENETIC OVERVIEW

Genetic Background

Generation

[N12F5](#)
(2019-05-06 00:00:00)

Slc6a3^{tm1.1(cre)Bkmn}

Alele Type

Targeted (Recombinase-expressing)

Gene Symbol

Slc6a3

Gene Name

solute carrier family 6 (neurotransmitter transporter, dopamine), member 3

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Neurobiology Research

Cell Biology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$270.00 Domestic price for female 4-week

348.51 Domestic price for breeder pair

V I E W P R I C E L I S T

– Details

– Detailed Description

Mice homozygous for this dopamine transporter IRES-cre ($\text{DAT}^{\text{IREScre}}$) knock-in allele are viable and fertile. Cre recombinase activity is observed as early as embryonic day 15, and co-localizes with endogenous gene expression in adult dopaminergic cell groups (substantia nigra (SN) and ventral tegmental area (VTA), as well as in the retrorubral field). Lesser Cre recombinase activity occurs in adult olfactory bulb glomeruli, mimicking the known lower *Slc6a3* (or DAT) expression in this tissue. Although the pattern and intensity of DAT immunostaining in the SN, VTA and striatum do not differ between wild-type and mutant mice, striatum DAT protein levels are moderately reduced (17%) in heterozygotes and significantly reduced (47%) in homozygotes. This diminution in homozygous striatum is associated with significantly increased neuropeptide PDyn (but not D1, D2, or PPE) mRNA levels compared to wild-type, while such an increase is not observed in heterozygotes. When bred with mice containing a *loxP*-flanked sequence of interest, Cre-mediated recombination will result in deletion of the flanked genome in dopaminergic neurons. As such, these mutant mice may be useful in neurobiological studies to facilitate the analysis of gene function in dopaminergic neurons, such as drug addiction or Parkinson's disease.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the phenotype could vary from that originally described. The strain description will be modified as published results become available.

+ Development

+ Expression Data

+ Control Suggestions

+ Selected References

– Genetics

+ *Slc6a3*^{tm1.1(cre)Bkmn}

– Disease/Phenotype

+ [Disease Terms](#)

+ [Research Areas By Phenotype](#)

+ [Mammalian Phenotype Terms by Genotype](#)

+ [References](#)

– 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:[Slc6a3](#)

Separated PCR:[Slc6a3](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

When maintaining a live colony, heterozygous mice are bred to wildtype siblings or to inbred C57BL/6J (Stock No. [000664](#)). Homozygous mice have approximately half of the endogenous gene expression associated with altered neuropeptide levels in the brain, while heterozygotes have a moderate, non-significant reduction in endogenous gene expression with no reported neuropeptide abnormalities.

[Additional Breeding and Husbandry Support](#)

Mating System

Wild-type x Heterozygote

Heterozygote x Wild-type

Citation

When using the DAT^{IRSc^{re}} mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #006660 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX10 \(Standard\)](#)

– Pricing & Availability



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LIVE MOUSE			
AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
	Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
4 weeks	Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
	Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
5 weeks	Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
	Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
5 weeks	Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
	Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
6 weeks	Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
	Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
6 weeks	Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
	Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
7 weeks	Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
	Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
7 weeks	Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
	Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
8 weeks	Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
	Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$270.00
8 weeks	Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51
	Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$78.51

BREEDER PAIR		
SEX	GENOTYPE	PRICE
Female	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	\$348.51
Male	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	
Female	Wild-type for Slc6a3 ^{tm1.1(cre)Bkm}	\$348.51
Male	Heterozygous for Slc6a3 ^{tm1.1(cre)Bkm}	

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	B6.SJL-Slc6a3tm1.1(cre)Bkmn/J Frozen Embryos	\$2595.00

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