



STOCK *Vip*^{1(cre)}Zjh / J

Stock No: 010908 | Vip-IRES-cre

Targeted Mutation



AVAILABLE

PLACE ORDER

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

Overview

Also Known As: Vip-IRES-cre

Vip-IRES-Cre mice have Cre recombinase expression directed to *Vip*-expressing cells by the endogenous promoter/enhancer elements of the vasoactive intestinal polypeptide locus. Cre activity is detected in the neocortex, hippocampus, olfactory bulb, suprachiasmatic nuclei, and other discrete midbrain and brainstem regions. These mice may be useful to study neural GABAergic circuits throughout the mammalian brain.

While Vip-IRES-Cre was designed to retain endogenous *Vip* expression, a 2019 publication indicates this allele has reduced *Vip* expression - see details below. As such, researchers may use homozygous mice for routine colony maintenance, but should consider using heterozygous Vip-IRES-Cre mice and wildtype littermate controls in all their studies.

Of note, the same Vip-IRES-Cre allele is also available on a C57BL/6J genetic background as Stock No. [031628](#).

Donating Investigator

Z. Josh Huang, Cold Spring Harbor Laboratory

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

F?⁺pN1F18

(2019-07-12 00:00:00)

Vip^{tm1(cre)Zjh}

Allele Type

Gene Symbol

Gene Name

Targeted (Recombinase-expressing)

Vip

vasoactive intestinal polypeptide

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$278.00 Domestic price for female 4-week

VIEW PRICE LIST

Details

Detailed Description

The *Vip*-IRES-Cre allele harbors an internal ribosome entry site and Cre recombinase in the 3' UTR of the vasoactive intestinal polypeptide locus (*Vip*). As such, it is designed to have the endogenous *Vip* promoter/enhancer elements directing *cre* expression in the neocortex, hippocampus, olfactory bulb, suprachiasmatic nuclei and other discrete midbrain and brainstem regions. When *Vip*-IRES-Cre mice are bred with mice containing *loxP*-flanked sequences, Cre-mediated recombination will result in deletion of the floxed sequences in the *Vip*-expressing cells in the offspring. While *Vip*-IRES-cre was designed to retain endogenous *Vip* expression, a 2019 publication indicates this allele has reduced *Vip* expression - see details below. As such, researchers may use homozygous mice for breeding, but should consider using heterozygous *Vip*-IRES-Cre mice and wildtype littermate controls in all their studies.

In 2010, the donating investigator reported Cre recombinase activity is specific and efficient (largely recapitulates the endogenous *Vip* expression pattern with highly efficient recombination). They report Cre recombinase activity in some GABAergic interneurons,

and did not examine *cre* expression in the intestine or tissues other than brain. VIP expression from this Vip-IRES-Cre allele was not evaluated by the donating investigator (January 2010) - see additional details below. They also reported that homozygous mice are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities.

For characterization information, see images at the Allen Institute for Brain Science website ([Vip-IRES-Cre images](#)).

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 ([Vip^{tm1\(cre\)Zjh}](#)). This same information would also be found searching the [MGI Recombinase Activity](#) database.

While this Vip-IRES-cre allele was designed as a 3' knock-in allele, [Cheng et al. 2019 J Biol Rhythms \(PMID:31452438\)](#) indicates the Vip-IRES-cre allele has reduced *Vip* expression. When examined at 2 days of age, Vip-IRES-cre heterozygotes exhibit reduced expression of the neuropeptide products encoded by the *Vip* gene (VIP and peptide histidine isoleucine [PHI]) in the suprachiasmatic nucleus (SCN) of the hypothalamic nucleus, when compared to wildtype littermates. The total number of VIP/PHI-positive neurons within the SCN was not different between Vip-IRES-cre heterozygotes and wildtype littermates - ruling out a potential loss of VIP/PHI neurons. Expression of other neuropeptides was not altered. The wheel-running activity rhythms of heterozygous mice were not affected.

+ Development

+ Expression Data

+ Control Suggestions

+ Selected References

- Genetics

+ *Vip^{tm1(cre)Zjh}*

- Disease/Phenotype

+ Disease Terms

+ Research Areas By Genotype

+ Mammalian Phenotype Terms by Genotype

+ References

- Technical Support

C H A T O  F L I N E

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: [Gt\(rosa\)26sor^{Tm1Sor}Probe](#)

Standard PCR: [Vip^{tm1\(cre\)Zjh}](#)

Standard PCR: [Vip^{tm1\(cre\)Zjh}](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony at The Jackson Laboratory Repository, homozygous mice may be bred together.

While Vip-IRES-cre was designed to retain endogenous *Vip* expression, a 2019 publication indicates this allele has reduced *Vip* expression - see detailed description. As such, researchers may use homozygous mice for routine colony maintenance, but should consider using heterozygous Vip-IRES-Cre mice and wildtype littermate controls in all their studies.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Citation

When using the Vip-IRES-cre mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #010908 in your Materials and Methods section.

[Animal Health Reports](#)

[Facility Barrier Level Descriptions](#)

 [AX11 \(Maximum\)](#)

➔ 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 Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
5 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
6 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
7 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
8 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
9 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
10 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00

tm1(cre)Zjh

11 weeks	SEX	Homozygous for Vip	\$278.00
		Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
12 weeks	Female	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00
	Male	Homozygous for Vip ^{tm1(cre)Zjh}	\$278.00

Related Products and Services

Frozen Mouse Embryo	STOCK Vip<tm1(cre)Zjh>/J	\$2595.00
---------------------	--------------------------	-----------

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.

The Jackson Laboratory's Genotype Promise

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project.

Terms Of Use

Terms of Use

[General Terms and Conditions](#)

Q U E S T I O N S A B O U T T E R M S O F U S E

Licensing Information

Phone: 207-288-6470

Email: TechTran@jax.org

JAX® Mice, Products & Services Conditions of Use

"MICE" means mouse strains, their progeny derived by inbreeding or crossbreeding, unmodified derivatives from mouse strains or their progeny supplied by The Jackson Laboratory ("JACKSON"). "PRODUCT(S)" means biological materials supplied by JACKSON, and their derivatives. "SERVICES" means projects conducted by JACKSON for other parties that may include but are not limited to the use of MICE or PRODUCTS. "RECIPIENT" means each recipient of MICE, PRODUCTS, or SERVICES provided by JACKSON including each institution, its employees and other researchers under its control. MICE or PRODUCTS shall not be: (i) used for any purpose other than internal research, (ii) sold or otherwise provided to any third party for any use, or (iii) provided to any agent or other third party to provide breeding or other services. Acceptance of MICE, PRODUCTS or SERVICES from JACKSON shall be deemed as agreement by RECIPIENT to these conditions, and departure from these conditions requires JACKSON's prior written authorization.

No Warranty

MICE, PRODUCTS AND SERVICES ARE PROVIDED "AS IS". JACKSON EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS, IMPLIED, OR STATUTORY, WITH RESPECT TO MICE, PRODUCTS OR SERVICES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF

Credit for PRODUCTS or SERVICES

In case of dissatisfaction for a valid reason and claimed in writing by a purchaser within ninety (90) days of receipt of, PRODUCTS or SERVICES, JACKSON will, at its option, provide credit or replacement for the PRODUCT received or the SERVICES provided; JACKSON makes no other representations and this shall be the exclusive remedy of the purchaser. [Please note specific policy for live mice.](#)

Animal Care and Use for SERVICES

Consistent with the requirement for a written understanding regarding animal care and use, the JACKSON Animal Care and Use Committee will review the animal care and use protocol(s) associated with any SERVICES to be performed at JACKSON, and JACKSON shall have ultimate responsibility and authority for the care of animals while on site or in JACKSON custody.

No Liability

In no event shall JACKSON, its trustees, directors, officers, employees, and affiliates be liable for any causes of action or damages, including any direct, indirect, special, or consequential damages, arising out of the provision of MICE, PRODUCTS, or SERVICES, including economic damage or injury to property and lost profits, and including any damage arising from acts or negligence on the part of JACKSON, its agents or employees. Unless prohibited by law, in purchasing or receiving MICE, PRODUCTS, or SERVICES from JACKSON, purchaser or recipient, or any party claiming by or through them, expressly releases and discharges JACKSON from all such causes of action or damages, and further agrees to defend and indemnify JACKSON from any costs or damages arising out of any third party claims.

MICE, PRODUCTS or SERVICES are to be used in a safe manner and in accordance with all applicable governmental rules and regulations.

The foregoing represents the General Terms and Conditions applicable to JACKSON's MICE, PRODUCTS or SERVICES. In addition, special terms and conditions of sale of certain MICE, PRODUCTS, or SERVICES may be set forth separately in JACKSON web pages, catalogs, price lists, contracts, and/or other documents, and these special terms and conditions shall also govern the sale of these MICE, PRODUCTS and SERVICES by JACKSON, and by its licensees and distributors.

Acceptance of delivery of MICE, PRODUCTS or SERVICES shall be deemed agreement to these terms and conditions. No purchase order or other document transmitted by purchaser or recipient that may modify the terms and conditions hereof, shall be in any way binding on JACKSON, and instead the terms and conditions set forth herein, including any special terms and conditions set forth separately, shall govern the sale of MICE, PRODUCTS or SERVICES by JACKSON.

☰ Related Strains

All

By Allele

By Gene

By Collection

All Related Strains






DO YOU NEED BALB/c MICE?

Rely on JAX to provide the models you need, when you need them.

LEARN MORE



 CONTACT

 DONATE

 SUBSCRIBE

[JAX HOME](#) [CAREERS](#) [PRIVACY POLICY](#) [TERMS OF USE](#)

[SEND FEEDBACK](#)

[RESEARCH CENTERS](#) [MOUSE GENOME INFORMATICS](#)

[MOUSE PHENOME DATABASE](#)

Leading the search for

TOMORROW'S CURES

©2019 THE JACKSON LABORATORY

Choose other country or region 