

**B6;D2-Tg(Th-FTH1)1Jkan/J**

Stock No: **017862**

 **Transgenic**

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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in studies related to iron deficiency and Parkinson's disease.

### Donating Investigator

Julie K. Andersen, Buck Institute for Age Research

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## GENETIC OVERVIEW

**Genetic Background**

**Generation**

### Tg(Th-FTH1)1Jkan

#### Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

## RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

Metabolism 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

These transgenic mice express the human *FTH1* (ferritin, heavy polypeptide 1) gene lacking the the iron-response element (IRE) under the control of the rat *Th* (tyrosine hydroxylase) promoter. As human FTH binds more tightly to iron than the mouse ferritin and would result in down regulation of transgene expression, the human gene lacking the iron-response element (IRE) was employed. Endogenous ferritin expression was not altered in transgenic animals. Ferritin-bound iron in the brain is increased and bioavailable ferrous iron levels in the substantia nigra is decreased. Transgenic mice are less sensitive to administration of the neurotoxin MPTP (1-methyl-4-phenyl-1,2,3,6-tetra-pyridine,) which induces Parkinson's disease-like symptoms in treated wildtype mice. When challenged with MPTP, transgenic mice do not exhibit the same loss of dopaminergic neurons in the substantia nigra observed in wildtype mice. Mice hemizygous for the transgenic insert are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. Homozygotes, while viable and fertile, exhibit a reduction in litter size over time.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### Tg(Th-FTH1)1Jkan

### 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

Separated MCA:[Tg\(Th-FTH1\)1Jkan](#)

Separated PCR:[Tg\(Th-FTH1\)1Jkan](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, transgene carrier mice may be bred with wildtype (noncarrier) mice from the colony. Homozygotes, while viable and fertile, exhibit a reduction in litter size over time.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the B6;D2-Tg(Th-FTH1)1Jkan/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #017862 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](#)*

## - 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/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Hemizygous or Non Carrier for Tg(Th-FTH1)1Jkan	\$2,854.50

## RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	B6;D2-Tg(Th-FTH1)1Jkan/J Frozen Embryo	\$2595.00
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## 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. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

## Terms Of Use

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### LICENSING INFORMATION

Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

## Related Strains

All

By Allele

By Gene

By Collection



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