

STOCK Tg(tetO-SNCA*A53T)E2Cai/J

Stock No: 012442

 Transgenic

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

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tetracycline analog doxycycline in the double mutant offspring.

Donating Investigator

Huaibin Cai, National Institutes of Health / National Institute on Aging (NIH/NIA)

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GENETIC OVERVIEW

[Genetic Background](#)

[Generation](#)

Tg(tetO-SNCA*A53T)E2Cai

Alele Type

Transgenic (Inducible, Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

[Neurobiology Research](#)

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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

Mice hemizygous for the human synuclein (*alpha-syn*) mutant transgene, (*SNCA**A53T) are viable and fertile. Expression of *SNCA**A53T is regulated by the tetracycline operator (*tetO*); also called tetracycline-responsive element (TRE, TetRE) or tet-operator). When mated to a mutant strain expressing tetracycline-controlled transactivator protein (tTA), expression of *SNCA**A53T protein may be regulated with tetracycline or its analog doxycycline (dox) in the double mutant offspring. Mutations in *alpha-syn* greatly accelerate the formation of fibrillar aggregates causing various forms of cytotoxicity, including impairment of proteasomal and lysosomal activities, disruption of ER-Golgi traffic and microtubule-based transport, and dysfunction of mitochondria. *SNCA**A53T mice develop age-dependent, progressive neurodegeneration. These mice may be useful for studying the Parkinson's disease pathogenesis and neurodegeneration elicited by the toxic effects of aggregation and somatic accumulation of *SNCA*.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(tetO-*SNCA**A53T)E2Cai

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: [Tg\(tetO-SNCA*A53T\)](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, homozygous mice may be bred together or transgene carrier mice may be bred to wild type siblings.

[Additional Breeding and Husbandry Support](#)

Citation

When using the STOCK Tg(tetO-SNCA*A53T)E2Cai/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #012442 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
Cryo Recovery	Hemizygous or Non carrier for Tg(tetO-SNCA*A53T)E2Cai	\$2,854.50

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	STOCK Tg(tetO-SNCA*A53T)E2Cai/J Frozen Embryo	\$2595.00

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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

LICENSING INFORMATION

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By Collection



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