

B6.Cg-Rorb^{tm2.1(tTA2)Hze}/J

Stock No: **028537** | Rorb-T2A-tTA2-D

 Congenic, Targeted Mutation

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

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transactivator (tTA2^S) gene expression directed to *Rorb*-expressing cells by the endogenous promoter/enhancer elements of the RAR-related orphan receptor beta locus. These Rorb-T2A-tTA2-D mice are designed to be a Tet-Off tool that allows dox-conditional expression of genes in layer 4 of cortex.

Donating Investigator

Hongkui Zeng, Allen Institute for Brain Science

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GENETIC OVERVIEW

Genetic Background

Generation

Rorb^{tm2.1(tTA2)Hze}

Allele Type

Targeted (Transactivator)

Gene Symbol

Rorb

Gene Name

RAR-related orphan receptor beta

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Neurobiology 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

The RAR-related orphan receptor beta protein encoded by the *Rorb* gene is a DNA-binding protein from the NR1 subfamily of nuclear hormone receptors.

The *Rorb*-T2A-tTA2-D knockin mutation has an in-frame insertion of a viral 2A oligopeptide (T2A) and a synthetic modified tetracycline-regulated transactivator (tTA2^S), all in place of the *Rorb* translational STOP codon. This is designed to have both endogenous gene and tTA2 expression directed to *Rorb*-expressing cells by the endogenous promoter/enhancer elements.

When *Rorb*-T2A-tTA2-D mice are bred with mice carrying a gene of interest under the regulatory control of a tetracycline-responsive promoter element (TRE, TetRE or tetO), expression of the target gene in the *Rorb*-expressing cells may be conditionally abolished with administration of the tetracycline analog doxycycline (dox) in the double mutant offspring. Specifically, the donating investigator reports that *Rorb*-T2A-tTA2^S-D activates tetO-regulated gene expression is restricted to layer 4 of cortex. The donating investigator did not examine tTA2^S activity in tissues other than brain.

Heterozygous mice are viable and fertile with no reported gross physical or behavioral abnormalities. The donating investigator did not examine tTA2^S activity in tissues other than brain. To date (December 2015), it has not been attempted to make this strain homozygous.

For characterization information, see images at the Allen Institute for Brain Science website ([Rorb-T2A-tTA2 images](#)).

Development

Control Suggestions

Genetics

Rorb^{tm2.1(tTA2)Hze}

⊖ 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:[Rorb](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred together, to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. [000664](#)). To date (December 2015), it has not been attempted to make this strain homozygous.

[Additional Breeding and Husbandry Support](#)

Citation

When using the Rorb-T2A-tTA2-D mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028537 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

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 NOT-FOR-PROFIT & ACADEMIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Rorb<tm2.1(tTA2)Hze>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.Cg-Rorb<tm2.1(tTA2)Hze>/J	\$2595.00
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