B6.Cg-Tg(Rgs4-EGFP)4Lvt/J
Stock No: **007894**
Congenic, Transgenic

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

PLACE ORDER

RGS4 expression and over-expression of RGS4 in neurological studies investigating the role of RGS4 in the regulation of neuronal signaling.

Donating Investigator

Pat Levitt, Vanderbilt University

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GENETIC OVERVIEW

Genetic Background **Generation**

Tg(Rgs4-EGFP)4Lvt

Allele Type

Transgenic (Reporter)

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools
Neurobiology Research

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Hemizygous RGS4 BAC transgenic mice are viable and fertile. As the RGS4 BAC transgene has an IRES2-eGFP construct inserted into the 3' UTR of the regulator of G-protein signaling 4 (*Rgs4*) locus, transgenic RGS4 transcripts and EGFP protein expression is observed in a pattern consistent with endogenous *Rgs4*. While the transgene is designed to co-express EGFP and RGS4, over-expression of RGS4 is not reported to result in unfaithful reporting of endogenous RGS4 expression. Under the control of the RGS4 promoter/enhancer elements, transgene expression reports dynamic developmental, regional, and cellular specific expression in developing and mature cerebral cortex neurons across all cortical domains, as well as developing and mature subcortical regions (telencephalon, diencephalon, and brainstem). While immunostaining against the transgenic product ("RGS4-GFP") allows detailed cellular resolution of neuronal cell bodies and processes, the subcellular localization of EGFP cannot be assumed to be identical to that of RGS4 (because the IRES2 region of the transgene directs individual RGS4 and EGFP expression (rather than a single fusion protein) and diffusion of EGFP throughout RGS4-expression cells results in a broader region of EGFP-immunolabeling than RGS4 transcript labeling). Because the regulator of G-protein signaling 4 (*Rgs4*) gene is associated with neuropsychiatric disorders (including schizophrenia and Parkinson's), these RGS4 BAC transgenic (RGS4-GFP) mice may be useful for fluorescent reporting of RGS4 expression and over-expression of RGS4 in neurological studies investigating the role of RGS4 in the regulation of neuronal signaling.

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. The original publication(s) describe two founder lines (R4BAC3 and R4BAC4) on a mixed C57BL/6J;DBA genetic background with "virtually identical patterns of RGS4-GFP expression" in all lines, line R4BAC3 used to characterize the cerebral cortex phenotype, and both R4BAC3 and R4BAC4 lines used to characterize the subcortical brain areas. It should therefore be noted that the phenotype of these mice could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(Rgs4-EGFP)4Lvt

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Probe:Fluorescent Proteins (Generic GFP)
Standard PCR:Fluorescent Proteins (Generic GFP)
Standard PCR:Tg(Rgs4-EGFP)4Lvt Alternate 3
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, hemizygotes are bred to wildtype siblings or C57BL/6J inbred mice.

Additional Breeding and Husbandry Support

Citation

When using the B6.Cg-Tg(Rgs4-EGFP)4Lvt/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #007894 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 | **Internatic**

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING		
SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Hemizygous or Non carrierfor Tg(Rgs4-EGFP)4Lvt	$2,854.50

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	B6.Cg-Tg(Rgs4-EGFP)4Lvt/J Frozen Embryo	$2595.00

PAYMENT TERMS AND CONDITIONS

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Terms Of Use

TERMS OF USE

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LICENSING INFORMATION

Phone: 207-288-6470
Email: TechTran@jax.org

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By Allele

By Gene

By Collection

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Yes No