The Jackson Laboratory

STOCK *Trpc7* $^{tm1.1Lbi}$/Mmjax

MMRRC Stock No: **37348-JAX** | TRPC7

Targeted Mutation

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Trpc7 (transient receptor potential cation channel, c7) knockout mice may be useful for studying the function of diacylglycerol sensitive cation channels.

Donating Investigator

Lutz Birnbaumer, National Institutes of Health

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GENETIC OVERVIEW

Genetic Background	Generation

Trpc7$^{tm1.1Lbi}$

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	*Trpc7*	transient receptor potential cation channel, subfamily C, member 7

VIEW GENETICS

RESEARCH APPLICATIONS

Cell Biology Research
Neurobiology Research
Sensorineural Research

VIEW ALL RESEARCH APPLICATION

Details

Detailed Description

Trpc7 (transient receptor potential cation channel, c7) encodes a diacylglycerol sensitive cation channel. Homozygous knockout mice are viable and fertile. Intrinsically photosensitive retinal ganglion cells (ipRGCs) from null mice exhibit a slightly altered response to light intensities at two points in the middle of the dose response curve, but do not appear to significantly alter the light sensitivity of the melanopsin phototransduction pathway.
This strain may be useful for studying the function of diacylglycerol sensitive cation channels.

Development

Control Suggestions

Selected References

Genetics

Trpc7$^{tm1.1Lbi}$

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Standard PCR:Trpc7
Genotyping resources and troubleshooting

Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes.

Additional Breeding and Husbandry Support

Citation

When using the TRPC7^{-} mouse strain in a publication, please cite the originating article(s) and include MMRRC stock #37348 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

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.

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