

STOCK *Mirc31^{tm1Mtm}* /Mmjax

MMRRC Stock No: 36307-JAX

 Targeted Mutation

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null allele when combined with Flp or Cre recombinase expressing strains. *LacZ* expression is observed in embryonic brain and spinal cord. This mutant mouse strain may be useful in studies of microRNA biology.

Donating Investigator

Michael T McManus, University of California, San Francisco

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GENETIC OVERVIEW

Genetic Background

Generation

Mirc31^{tm1Mtm}

Alele Type

Targeted (Conditional ready (e.g. floxed), Reporter, Null/Knockout)

Gene Symbol

Mirc31

Gene Name

microRNA cluster 31, including Mirlet7c-2 through Mirlet7b

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

Cell Biology Research

VIEW ALL RESEARCH APPLICATIONS

Details

Detailed Description

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. When combined with a Flp recombinase-expressing strain, the *lacZ* and neomycin genes are removed leaving an *FRT* site and the *loxP*-flanked miRlet7c-2/7b (Mirc31) stem loop. A further cross to a Cre-recombinase-expressing strain generates the null allele. When combined with a Cre-recombinase-expressing strain, the neomycin cassette and miRlet7c-2/7b stem loop are removed leaving a *lacZ* tagged null allele (FRT-*lacZ-loxP*). *LacZ* expression is observed in embryonic brain and spinal cord. This mutant mouse strain may be useful in studies of microRNA biology.

Development

Expression Data

Control Suggestions

Genetics

Mirc31^{tm1Mtm}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols

Standard PCR: [Mirlet7c-2/7b](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

While maintaining a live colony, these mice have been bred as heterozygotes, however, the Donating Investigator indicates that homozygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Citation

When using the STOCK *Mirc31^{tm1Mtm}/Mmjax* mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #36307 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](#)

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LICENSING INFORMATION

Phone: 207-288-6470

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