The Jackson Laboratory

B6.Cg-Tg(CAG-Bgeo,-DsRed*MST)1Nagy/J

Stock No: **006055**

Congenic, Transgenic

Please contact Technical Support for more information

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strain, *lacZ* expression is replaced with red fluorescent protein (DsRed*MST) expression in tissues expressing Cre recombinase. This double reporter system makes it possible to distinguish a lack of reporter expression from a lack of Cre recombinase expression while providing a means to assess Cre excision activity in live animals and cells.

This strain is discontinued, please see the replacement strain: Stock No. 005438.

Donating Investigator

IMR Colony, The Jackson Laboratory

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GENETIC OVERVIEW

Genetic Background **Generation**

Tg(CAG-Bgeo,-DsRed*MST)1Nagy

Allele Type

Transgenic (Reporter)

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RESEARCH APPLICATIONS

Research Tools

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Details

Detailed Description

While mice hemizygous for this Z/RED transgene (on an outbred genetic background, see Stock No. 005438) are reported to be viable and fertile, it has been our experience at The Jackson Laboratory that hemizygous animals are often smaller than littermates and subject to postnatal mortality. Delayed weaning greatly enhances the survival. Although homozygous animals are born, animals have not survived past 5 weeks of age. These transgenic mice express beta-galactosidase (*lacZ*) under the control of the chicken beta actin promoter coupled with the cytomegalovirus (CMV) immediate early enhancer. When crossed with a Cre recombinase-expressing strain, *lacZ* expression is replaced with red fluorescent protein (DsRed*MST) expression in tissues expressing Cre recombinase. This double reporter system makes it possible to distinguish a lack of reporter expression from a lack of Cre recombinase expression while providing a means to assess Cre excision activity in live animals and cells.

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. It should be noted that the phenotype 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(CAG-Bgeo,-DsRed*MST)1Nagy

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

QPCR:Generic DsRed
QPCR:Generic DsRed
Standard PCR:Tg(DsRed)
Standard PCR:Tg(Bgeo)
Standard PCR:Generic DsRed
Standard PCR:Tg(CAG-Bgeo,-DsRed*MST)1Nagy
Probe:Generic DsRed Probe
Genotyping resources and troubleshooting

Breeding Considerations

It has been our experience at The Jackson Laboratory that hemizygotes maintained on a mixed genetic background (see Stock No. 005438) are often smaller than littermates and subject to postnatal mortality. Delayed weaning greatly enhances the survival. Additionally, smaller mice or mice with improper tooth development may benefit from adding pulverized (and/or increased fat) chow to the cage floor prior to and after weaning to promote the survival of the transgenic pups. Although homozygous animals are born, animals have not survived past 5 weeks of age. Given this, as well as the possibility that fluorescent protein polymer formation may result in DsRed-expressing mice, hemizygous mice are bred to wildtype siblings or to C57BL/6J mice.

Additional Breeding and Husbandry Support

Mating System

Inbred x Hemizygote

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TERMS OF USE

General Terms and Conditions

QUESTIONS ABOUT TERMS OF USE

ADDITIONAL USE RESTRICTIONS APPLY

Use of MICE by companies or for-profit entities requires a license prior to shipping.

LICENSING INFORMATION

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

Related Strains

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By Gene

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