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Rosa26(mlre1.IG.Cherry) - Mouse Strain RES4026**Mouse Information**

Common Name:	Rosa26(mlre1.IG.Cherry)
MGI Official Name:	Rosa26 ^{(mlre1.IG.Cherry)Fpa}
Description:	This mouse line contains a bidirectional Tet0-regulated fusion gene that has been inserted into a disabled Rosa26 loxed cassette acceptor allele by RMCE. In one direction the tetO/CMV promoter drives expression of a red fluorescent protein (Cherry) while in the other direction it drives a mutant mlre1. mlre1 is an endoplasmic reticulum (ER) membrane kinase response to unfolded protein response (UPR). Activated mlre1 endonucleases leads to the splicing of XBP-1 (a transcription factor which is upregulated in times of ER stress) which transcriptionally increases the expression of ER chaperones and alleviates UPR. These mice may be useful for studying the role of mlre1 in the response to ER stress in the setting of diet induced obesity and insulin resistance.
Categories:	Fluorescent Probes Tet


Genetic Alterations**1) RMCE Targeted Mutagenesis**

Type of Allele	Cassette Acceptor				
Targeted Gene	gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - NCBI GeneID:14910)				
Targeted Allele	targeted mutation 1 (Rosa26 ^{tm1(LCA)} - MGI:104735)				
Description of Targeting Vector	The Rosa 26 cassette acceptor allele was created by replacing a 5.165 kb region of this gene containing exon 1 with a floxed tk-neo cassette, a puromycin-delta-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter (pU-deltaTK) and a neomycin resistant gene driven by the bacterial EM7 promoter (EM7neo) flanked by minimal (34 bp) tandemly oriented lox71 and lox2272 sites.				
Targeting Vector Genbank File	pRosa26.LCA.gb				
Recombinase-Mediated Cassette Exchange Stage					
Type of Allele:	Conditional Activating				
Exchanged Cassette Gene	Not provided. (mlre.IG/Cherry)				
Exchanged Cassette Allele Name	Rosa26 ^{mlre1.IG.Cherry}				
Description of Exchange Vector	not available				
Exchange Vector Genbank File:	phygro66.2272.rv.ig.mire1.cherry.gb				
Citations	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td>21324933</td> <td>Quantification of factors influencing fluorescent protein expression using RMCE to generate an allelic series in the ROSA26 locus in mice. (2011) Dis Model Mech 4: 537-47 (Added 2012-09-24 16:36:23.369844)</td> </tr> </tbody> </table>	PubMedID	Citation	21324933	Quantification of factors influencing fluorescent protein expression using RMCE to generate an allelic series in the ROSA26 locus in mice. (2011) Dis Model Mech 4: 537-47 (Added 2012-09-24 16:36:23.369844)
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Strain Information**Access Status**

 This resource is publicly viewable.

Request this Resource

 Request from a repository


Primary contributor: [Papa Lab](#)
Co-contributed by:

- [BCBC Mouse / ES Cell Core](#)

Resource Tags

mouse, mouse strain,
Rosa26(mlre1.IG.Cherry),
Rosa26^{(mlre1.IG.Cherry)Fpa}

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 Read more about tags

Resource History & Actions

Approved on Apr 19, 2011
Last modified on Sep 19, 2012

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Related resources**BCBC**

No matching resources

Other Consortia

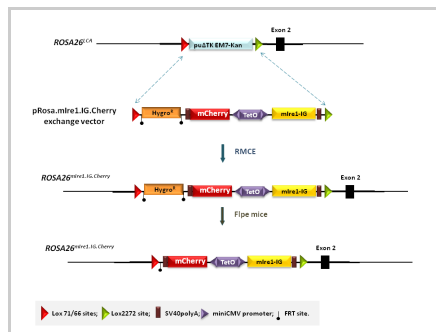
No matching resources

Data courtesy of [dkCOIN](#). Only public resources are displayed.

Strain Type:	Mixed
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	C57BL/6J (date recorded: Not provided)
Strain Description:	Not provided

Associated Images

Image 1


Description:

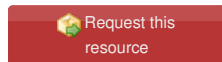
Not provided

Reference:

Not provided

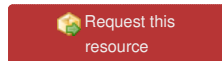
Repositories

Magnuson Lab



Stock #: MC BSID 0081
Availability Notes: Sperm cryo

Papa Lab



Stock #: FP4026-esc
Availability Notes: Not provided

Contact Information

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Associated Publications

No publications associated

Comments

There are no comments for this entry.

