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

<b>Common Name:</b>	Rosa26(mlre1.IG.Cherry)
<b>MGI Official Name:</b>	Rosa26 <sup>(mlre1.IG.Cherry)Fpa</sup>
<b>Description:</b>	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.
<b>Categories:</b>	Fluorescent Probes Tet


**Genetic Alterations**

<b>1) RMCE Targeted Mutagenesis</b>					
<b>Type of Allele</b>	Cassette Acceptor				
<b>Targeted Gene</b>	gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - <a href="#">NCBI GeneID:14910</a> )				
<b>Targeted Allele</b>	targeted mutation 1 (Rosa26 <sup>tm1(LCA)</sup> - <a href="#">MGI:104735</a> )				
<b>Description of Targeting Vector</b>	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.				
<b>Targeting Vector Genbank File</b>	<a href="#">pRosa26.LCA.gb</a>				
<b>Recombinase-Mediated Cassette Exchange Stage</b>					
<b>Type of Allele:</b>	Conditional Activating				
<b>Exchanged Cassette Gene</b>	Not provided. (mlre.IG/Cherry)				
<b>Exchanged Cassette Allele Name</b>	Rosa26 <sup>mlre1.IG.Cherry</sup>				
<b>Description of Exchange Vector</b>	not available				
<b>Exchange Vector Genbank File:</b>	<a href="#">phygro66.2272.rv.ig.mire1.cherry.gb</a>				
<b>Citations</b>	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td><a href="#">21324933</a></td> <td><a href="#">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)</a></td> </tr> </tbody> </table>	PubMedID	Citation	<a href="#">21324933</a>	<a href="#">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)</a>
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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<sup>(mlre1.IG.Cherry)Fpa</sup>

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**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**

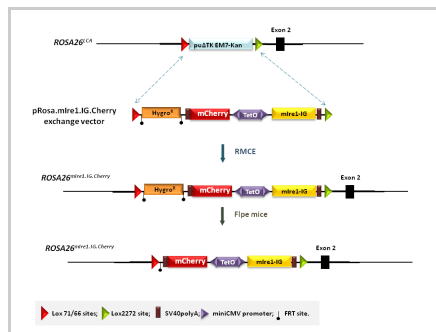
No matching resources

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

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

## Associated Images

Image 1


**Description:**

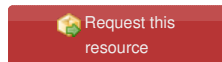
Not provided

**Reference:**

Not provided

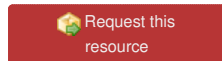
## Repositories

### Magnuson Lab



**Stock #:** MC BSID 0081  
**Availability Notes:** Sperm cryo

### Papa Lab



**Stock #:** FP4026-esc  
**Availability Notes:** Not provided

## Contact Information

### Preferred Contact

<b>Name</b>	Feroz Papa
<b>Institution</b>	University of California San Francisco
<b>Phone</b>	415-205-9751
<b>Email</b>	<a href="mailto:fpapa@medicine.ucsf.edu">fpapa@medicine.ucsf.edu</a>

## Associated Publications

No publications associated

## Comments

There are no comments for this entry.

