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**Rosa26<sup>mlre1.N906A.Cherry</sup> - Mouse Strain RES4560****Mouse Information**

<b>Common Name:</b>	Rosa26 <sup>mlre1.N906A.Cherry</sup>
<b>MGI Official Name:</b>	Rosa26 <sup>mlre1.N906A.CherryMgn</sup>
<b>Description:</b>	This mouse contains bidirectional TetO-regulated genes inserted into the Rosa26.LCA allele by RMCE. In one direction the TetO/CMV promoter drives the expression of point mutant (N906A) of IRE1, an ER transmembrane kinase response to unfolded protein response (UPR). In the other direction it drives the expression of red fluorescent protein mCherry. This mouse can be used to simultaneously over-express Ire1 (N906A) and mCherry upon administration of doxycycline when the effector protein rTA is expressed. This line can be used to study the roles of IRE1 in the response to ER stress, diet induced obesity and insulin resistance.
<b>Categories:</b>	Fluorescent Probes Tet

**Genetic Alterations****1) RMCE Targeted Mutagenesis**

<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>


**Recombinase-Mediated Cassette Exchange Stage**

<b>Type of Allele:</b>	Gene Replacement
<b>Exchanged Cassette Gene</b>	gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - <a href="#">NCBI GeneID:104735</a> )
<b>Exchanged Cassette Allele Name</b>	Rosa26.mlre1.N906A.Cherry
<b>Description of Exchange Vector</b>	The phygro.71.2272.mlre1N906A.Cherry exchange vector was made on a backbone of a basal exchange vector which contains Lox71/Lox2272 sites and a flrtd (flanked by FRT) Pgk-Hygro cassette for positive selection of ES cells after RMCE. Bidirectional Tet-O regulated genes mCherry and Ire1(N906A) were inserted between Pgk-Hygro and Lox2272 site.
<b>Exchange Vector Genbank File:</b>	<a href="#">phygro66.2272..mlre1N906A.cherry.gb</a>
<b>Citations</b>	Not Available


**Strain Information**

<b>Strain Type:</b>	Mixed
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**Access Status**

 This resource is publicly viewable.


**Request this Resource**


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Primary contributor: [Papa Lab](#)  
Co-contributed by:  
• [BCBC Mouse / ES Cell Core](#)

**Resource Tags**

mouse, mouse strain,  
Rosa26<sup>mlre1.N906A.Cherry</sup>,  
Rosa26<sup>mlre1.N906A.CherryMgn</sup>

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 Read more about tags

**Resource History & Actions**

Approved on Feb 21, 2013  
Last modified on Jan 30, 2013

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**Related resources****BCBC**

No matching resources

**Other Consortia**

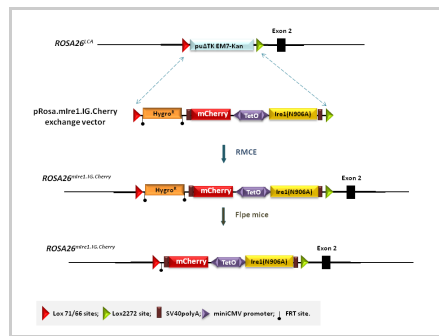
No matching resources

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

<b>Chimera/Founder Genetic Background:</b>	129S6/SvEvTac
<b>Current Genetic Background:</b>	C57BL/6J (date recorded: 11/27/2012)
<b>Strain Description:</b>	Not provided

### Associated Images

Image 1



**Description:**  
Not provided

**Reference:**  
Not provided

### Repositories

Papa Lab

Request this resource

**Stock #:** Not provided  
**Availability Notes:** Not provided

### Contact Information

Preferred Contact

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### Associated Publications

No publications associated

### Comments

There are no comments for this entry.

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