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**Rosa26<sup>(EN.Cherry.Neo)Mgn</sup> - Mouse Strain RES4020****Mouse Information**

<b>Common Name:</b>	Rosa26 <sup>(EN.Cherry.Neo)Mgn</sup>
<b>MGI Official Name:</b>	Rosa26 <sup>tm2Mgn</sup>
<b>Description:</b>	This mouse line expresses mCherry, a red fluorescent protein, under control of the endogenous ROSA26 gene locus. This mouse was generated as part of a study to identify the optimal combination of regulatory elements for fluorescent protein expression from a single gene copy.
<b>Categories:</b>	Fluorescent Probes

**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>
<b>Recombinase-Mediated Cassette Exchange Stage</b>	
<b>Type of Allele:</b>	Gene Replacement
<b>Exchanged Cassette Gene</b>	Not provided. (EN.Cherry)
<b>Exchanged Cassette Allele Name</b>	Rosa26 <sup>EN.Cherry-Neo</sup>
<b>Description of Exchange Vector</b>	not available
<b>Exchange Vector Genbank File:</b>	<a href="#">pRosa.EN.Cherry.bGspliceA.neo.gb</a>
<b>Citations</b>	Not Available

**Strain Information**

<b>Strain Type:</b>	Mixed
<b>Chimera/Founder Genetic Background:</b>	129S6/SvEvTac
<b>Current Genetic Background:</b>	C57BL/6J (date recorded: 12/14/2011)
<b>Strain Description:</b>	This strain is of a mixed genetic background that is approximately 50% 129S6 and 50% C57BL/6J.


**Associated Images**

Image 1


**Description:**

This figure shows how this line of mice was made. Coding sequences for a red (mCherry) fluorescent protein gene were

**Access Status**

 This resource is publicly viewable.


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

**Resource Tags**


mouse, mouse strain,  
Rosa26<sup>(EN.Cherry.Neo)Mgn</sup>, Rosa26<sup>tm2Mgn</sup>

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**Resource History & Actions**

Approved on Mar 05, 2011  
Last modified on Oct 21, 2013

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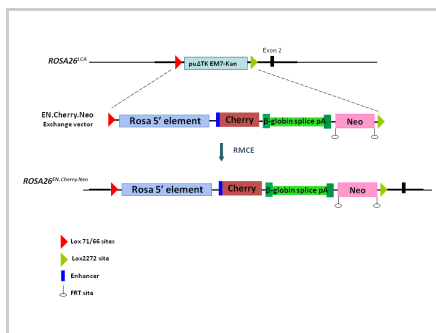
**Related resources****BCBC**

No matching resources

**Other Consortia**

No matching resources

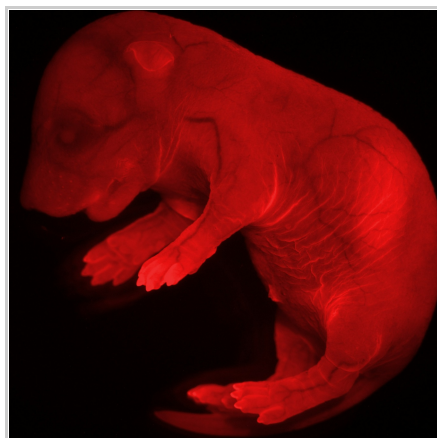
Data courtesy of [dkCOIN](#). Only public resources are displayed.



inserted into an exchange cassette that allowed RMCE into a [ROSA26 \[LCA\] allele](#). In this manner, mCherry is constitutively expressed under control of the endogenous ROSA26 promoter. The exchange plasmid also contains a 51 bp translational enhancer (5' leader sequence from *Xenopus* beta-globin gene), a Kozak sequence upstream of the start codon, and intronic and polyA sequences from the rabbit beta-globin gene that confer stability to the mRNA.

**Reference:**  
Not provided

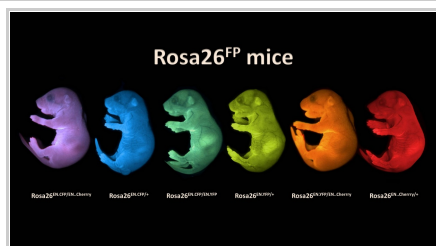
Image 2

**Description:**

The image of *Rosa26<sup>Cherry/+</sup>* mouse was taken with a stereoscope using RFP filter.

**Reference:**  
Not provided

Image 3

**Description:**

The images of newborn offspring from intercrosses of *Rosa26<sup>Cherry/+</sup>*, *Rosa26<sup>CFP/+</sup>* and *Rosa26<sup>YFP/+</sup>* mice were taken with a stereoscope using CFP, YFP and RFP filter and subsequently overlaid.

**Reference:**  
Not provided

## Repositories

### Magnuson Lab

Out of stock

**Stock #:** VUMC, NI BSID 0092  
**Availability Notes:** Sperm cryo

### MMRRC

 Request via [www.mmrc.org](http://www.mmrc.org) website

**Stock #:** 036286-UCD  
**Availability Notes:** Not provided

## Contact Information

### Preferred Contact


Name	Mark Magnuson
Institution	Vanderbilt University
Phone	615-322-7006
Email	<a href="mailto:mark.magnuson@vanderbilt.edu">mark.magnuson@vanderbilt.edu</a>

## Associated Publications

Publication	Citation
<a href="#">21324933</a>	Chen SX, Osipovich AB, Ustione A, Potter LA, Hipkens S, Gangula R, Yuan W, Piston DW, Magnuson MA <a href="#">Quantification of factors influencing fluorescent protein expression using RMCE to generate an allelic series in the ROSA26 locus in mice.</a> (2011) <i>Dis Model Mech</i> 4: 537-47 (Added September 24, 2012)

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