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Rosa26^{(3TF.Cherry)Mgn} - Mouse Strain RES4075**Mouse Information**

Common Name:	Rosa26 ^{(3TF.Cherry)Mgn}
MGI Official Name:	Rosa26 ^{(3TF.Cherry)Mgn}
Description:	This mouse line contains bidirectional TetO-regulated genes inserted into the Rosa26[LCA] by RMCE. In one direction, the TetO/CMV promoter drives expression of a polycistronic mRNA with transcription factors MafA, Pdx1, and Ngn3 linked by 2A peptide cleavage sequences. In the other direction, it drives the expression of red fluorescent protein mCherry. In this mouse line, when the effector protein rtTA is expressed, all three transcription factors and mCherry will be over-expressed simultaneously upon administration of doxycycline.
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.
Exchanged Cassette Allele Name	mCherry/MafA/Pdx1/Ngn3
Description of Exchange Vector	The phygro66.2272.RV.mCherry.MafA.Pdx1.Ngn3 vector was made on a backbone of a basal exchange vector which contains Lox66/Lox2272 sites and a flrtd (flanked by FRT) Pgk-Hygro cassette that is used for positive selection of ES cells after RMCE. Bi-directional TetO-regulated genes, mCherry and three transcription factors (MafA, Pdx1, and Ngn3 linked by a 2A peptide cleavage sequence) were inserted between the Pgk-Hygro and Lox2272 sites.

Exchange Vector Genbank File: [phygro66.2272.RV.mCherry.MafA.Pdx1.Ngn3.gb](#)


Citations**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)

Access Status

 This resource is publicly viewable.

Request this Resource

 Request from a repository

Primary contributor: [Magnuson Lab](#)

Co-contributed by:

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

Resource Tags

mouse, mouse strain,
Rosa26^{(3TF.Cherry)Mgn}

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Resource History & Actions

Approved on Dec 21, 2011

Last modified on Mar 12, 2012

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Other Consortia

No matching resources

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

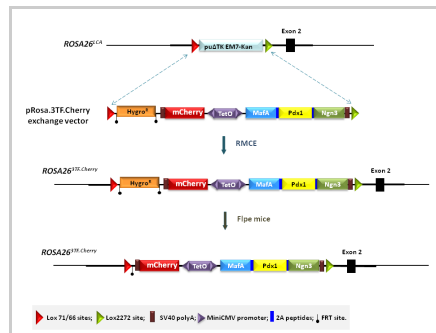
PubMedID Citation

Strain Information

Strain Type:	Mixed
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	C57BL/6 (date recorded: 09/14/2011)
Strain Description:	Not provided

Associated Images

Image 1



Description:
Not provided

Reference:
Not provided

Repositories

Magnuson 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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