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Rosa26^{(YFP)Mgn} - Mouse Strain RES4055**Mouse Information**

| | |
|---------------------------|--|
| Common Name: | Rosa26 ^{(YFP)Mgn} |
| MGI Official Name: | Rosa26 ^{tm4Mgn} |
| Description: | This mouse line was made by RMCE in the Rosa26[LCA] allele and has yellow fluorescent protein (YFP, Citrine) expressed under control of the ROSA26 promoter. The YFP sequence is preceded by a translational enhancer and followed by intron-containing rabbit beta-globin polyA sequences. This mouse has ubiquitously expressed YFP protein and can be used for transplantation and other experiments where tracing of source cells is required. |
| Categories: | Fluorescent Probes |


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: | Global Null | | | | |
| Exchanged Cassette Gene | Not provided. | | | | |
| Exchanged Cassette Allele Name | YFP | | | | |
| Description of Exchange Vector | The pRosa.EN.YFP.bGspliceA.Neo vector was made on a backbone of a basal exchange vector which contains a 4.081 kb sequence from the Rosa26 locus, Lox71/Lox2272 sites, and a flrtd (flanked by FRT) P _{gk} -Neo cassette that is used for positive selection of ES cells after RMCE. A 5' translational enhancer-YFP- intron-containing rabbit beta-globin polyA sequence was inserted (in place of Rosa26 exon 1), between the Lox71 and P _{gk} -Neo sites. | | | | |
| Exchange Vector Genbank File: | pRosa.EN.YFP.bGspliceA.neo.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) |
| 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^{tm4Mgn}, Rosa26^{(YFP)Mgn}

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Resource History & Actions

Approved on Dec 21, 2011
Last modified on Jul 31, 2012

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Related resources**BCBC**

No matching resources

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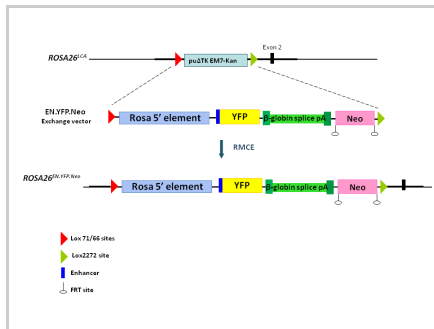
Data courtesy of [dkCOIN](#). Only public resources are displayed.

Strain Information

| | |
|-------------------------------------|--------------------------------------|
| Strain Type: | Mixed |
| Chimera/Founder Genetic Background: | 129S6/SvEvTac |
| Current Genetic Background: | C57BL/6J (date recorded: 07/31/2012) |
| Strain Description: | Not provided |

Associated Images

Image 1

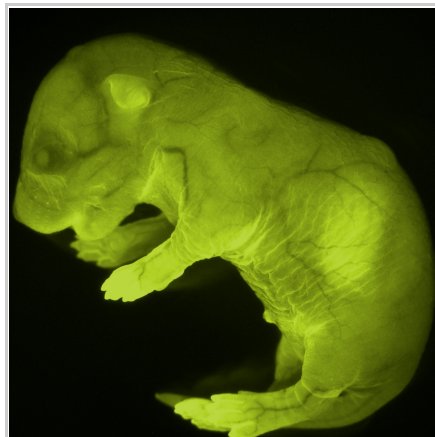

Description:

Not provided

Reference:

Not provided

Image 2

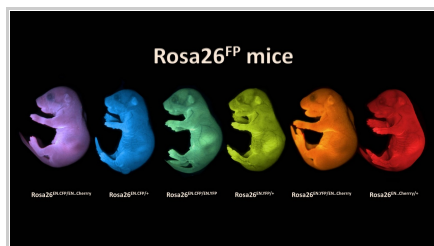

Description:

The image of Rosa26^{YFP/+} mouse was taken with a stereoscope using YFP filter.

Reference:

Not provided

Image 3


Description:

The images of newborn offspring from intercrosses of Rosa26^{Cherry/+}, Rosa26^{CFP/+} and Rosa26^{YFP/+} mice were taken with a stereoscope using CFP, YFP and RFP filter and subsequently overlaid.

Reference:

Not provided

Repositories

MMRRC


Stock #: 036289-MU

Availability Notes: Not provided

Contact Information

Preferred Contact

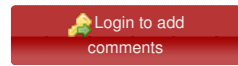
| | |
|-------------|--|
| Name | Mark Magnuson |
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Associated Publications

No publications associated

Comments

There are no comments for this entry.



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