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**Rosa26<sup>228.3TF.GFP.Cre</sup> - ES Cell Line RES4159****ESC Line Information**

<b>Cell Line Name:</b>	Rosa26 <sup>228.3TF.GFP.Cre</sup>
<b>Parental Cell Line:</b>	TL-1
<b>Background Strain:</b>	129
<b>Culturing Protocol:</b>	<a href="#">Std_mESC_Culture.doc</a>
<b>Description:</b>	This cell line contains TetO-regulated genes inserted into the Rosa26 <sup>CA</sup> allele by RMCE. The TetO/miniCMV promoter was placed (at -228) upstream of the putative ROSA26 transcription start site and drives the expression of a polycistronic mRNA with transcription factors MafA, Pdx1, and Ngn3 together with a GFP-Cre fusion protein. The sequences are linked by 2A peptide cleavage sequences. In this cell line, when the effector protein rTA is expressed, all three transcription factors and GFP-Cre will be over-expressed simultaneously upon administration of doxycycline.


**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>	Gene Replacement
<b>Exchanged Cassette Gene</b>	Cre, GFP, MafA (378435), Pdx1 (18609), Neurog3 (11925)
<b>Exchanged Cassette Allele Name</b>	3TF.GFP-Cre
<b>Description of Exchange Vector</b>	The pR26.228.ptight.3TF.GFP.Cre vector was made on a backbone of a basal exchange vector which contains a 5.166 kb sequence from the Rosa26 locus, Lox71/Lox2272 sites, and a flrtd (flanked by FRT) Pgk-Neo cassette that is used for positive selection of ES cells after RMCE. The TetO/miniCMV promoter from the pTight vector (Clontech) was inserted (at -228) upstream of the putative ROSA26 transcription start site, followed by a polycistronic mRNA coding for MafA, Cre-GFP, Pdx1, and Ngn3. The sequences are linked by 2A peptide cleavage sequences.
<b>Exchange Vector Genbank File:</b>	<a href="#">R26.228.ptight.3TF.GFP.CRE.gb</a>
<b>Citations</b>	Not Available

**Access Status**

 This resource is publicly viewable.

**Request this Resource**

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

**Resource Tags**

embryonic, es, esc, Rosa26<sup>228.3TF.GFP.Cre</sup>, stem, TL-1

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**Resource History & Actions**

Approved on Oct 09, 2012  
Last modified on Sep 21, 2012

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**Related resources****BCBC**

No matching resources

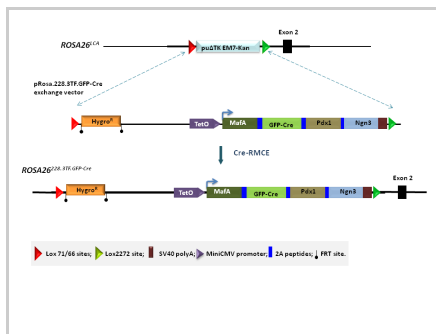
**Other Consortia**

No matching resources

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

## Associated Images

### Image 1



#### Description:

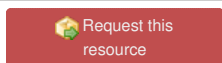
The pRosa.228.3TF.GFP-Cre vector was exchanged into the Rosa26<sup>LCA</sup> locus via Cre-IRMCE, thus generating the Rosa26<sup>228.3TF.GFP-Cre</sup> allele.

#### Reference:

*Not provided*

## Repositories

### Magnuson Lab



Stock #: *Not provided*

Availability Notes: *Not provided*

## Contact Information

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## Associated Publications

*No publications associated*

## Comments

*There are no comments for this entry.*

