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Rosa26^{TetO.NRSF} - ES Cell Line RES4031**ESC Line Information**

Cell Line Name:	Rosa26 ^{TetO.NRSF}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	This cell line contains bidirectional TetO-regulated genes inserted into the Rosa26 ^{CA} allele by RMCE. In one direction, the TetO/CMV promoter drives expression of the transcription factor NRSF/REST. In the other direction, it drives the expression of the red fluorescent protein mCherry. In this cell line, when the effector protein rTA is expressed, NRSF and mCherry are simultaneously over-expressed upon administration of doxycycline.


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	RE1-silencing transcription factor (MGI:19712)
Exchanged Cassette Allele Name	NRSF
Description of Exchange Vector	The phygro66.2272.TetO.NRSF exchange vector was made on a backbone of a basal exchange vector containing Lox66/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 Nrsf were inserted between the Pkg-Hygro and Lox2272 sites.
Exchange Vector Genbank File:	phygro66.2272.TetO.NRSF.gb
Citations	Not Available


Associated Images

Image 1	Description: Not provided
	Reference: Not provided

Access Status

 This resource is publicly viewable.

Request this Resource

 Request from a repository

Primary contributor: [Sander Lab](#)
Co-contributed by:

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

Resource Tags

embryonic, es, esc, Rosa26^{TetO.NRSF}, stem, TL-1

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Resource History & Actions

Approved on Dec 21, 2011
Last modified on Apr 22, 2015

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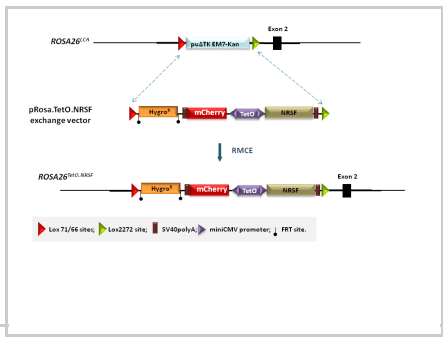
Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

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



Repositories

Magnuson Lab

Request this resource

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.

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