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Rosa26^{Sox9.Cherry} - ES Cell Line RES4029**ESC Line Information**

Cell Line Name:	Rosa26 ^{Sox9.Cherry}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	This ES line contains bidirectional TetO-regulated genes inserted into the Rosa26.LCA allele by RMCE. In one direction the TetO/CMV promoter drives the expression of transcription factor Sox9. In the other direction it drives the expression of red fluorescent protein mCherry. This ES cell line can be used to simultaneously over-express Sox9 and mCherry upon administration of doxycycline when the effector protein rTA is expressed.

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	SRY-box containing gene 9 (MGI:20682)
Exchanged Cassette Allele Name	Sox9/mCherry
Description of Exchange Vector	The phygro66.2272.TetO.Sox9 exchange vector was made on a backbone of a basal exchange vector which contains Lox71/Lox2272 sites and a flrtd (flanked by FRT) P _{gk} -Hygro cassette was used for positive selection after RMCE. Bidirectional Tet-O regulated genes mCherry and Sox9 were inserted between the P _{gk} -Hygro and Lox2272 sites.
Exchange Vector Genbank File:	phygro66.2272.TetO.Sox9.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](#)

Resource Tags

embryonic, es, esc, Rosa26^{Sox9.Cherry}, stem, TL-1

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 Read more about tags

Resource History & Actions

Approved on Dec 07, 2011
Last modified on Sep 19, 2012

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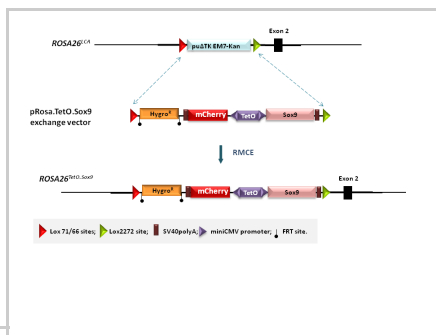
Related resources**BCBC**

No matching resources

Other Consortia

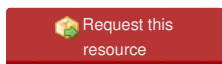
No matching resources

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



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.

