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Rosa26^{Pdx1.YFP} - ES Cell Line RES4061**ESC Line Information**

Cell Line Name:	Rosa26 ^{Pdx1.YFP}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	<i>Not provided.</i>
Description:	This ES cell line contains bidirectional TetO-regulated genes inserted into the Rosa26 ^{LCA} allele by RMCE. In one direction, the tetO/CMV promoter will drive expression of Pdx1. In the other direction, it will drive the expression of yellow fluorescent protein (YFP). In this cell line, when the effector protein rTA is expressed, Pdx1 and YFP will be over-expressed simultaneously 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:	Gene Replacement
Exchanged Cassette Gene	pancreatic and duodenal homeobox 1 (MGI:18609)
Exchanged Cassette Allele Name	Pdx1/YFP
Description of Exchange Vector	The phygro66.2272.Pdx1.YFP exchange 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. Bidirectional Tet-O regulated genes Pdx1 and YFP were inserted between the Pgk-Hygro and Lox2272 sites.
Exchange Vector Genbank File:	phygro66.2272.Pdx1.YFP.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) <i>Dis Model Mech</i> 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


embryonic, es, esc, Rosa26^{Pdx1.YFP}, stem, TL-1

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Resource History & Actions

Approved on Dec 21, 2011
Last modified on Apr 14, 2015

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No matching resources

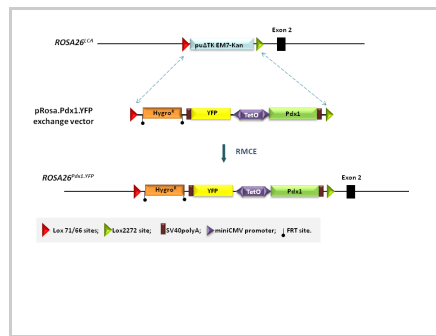
Other Consortia

No matching resources

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

Associated Images

Image 1

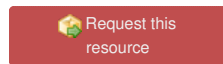


Description:
Not provided

Reference:
Not provided

Repositories

Magnuson Lab



Stock #: *Not provided*
Availability Notes: *Not provided*

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Associated Publications

No publications associated

Comments

There are no comments for this entry.

