

This is an unpublished mouse strain. This mouse 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 mouse line, when the effector protein rtTA is expressed, Pdx1 and YFP will be over-expressed simultaneously upon administration of doxycycline.

Keywords: [YFP](#) [TetO](#) [Rosa26](#) [Pdx1](#) [Mgn](#)

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Mouse Information

Common Name	Rosa26 ^{(Pdx1.YFP)Mgn}
Research Applications	<i>Not provided</i>
MMRRC ID	<i>Not provided</i>
Jackson Laboratories Stock No	<i>Not provided</i>
VCMR ID	SY
Additional Strain Information	<i>Not provided</i>

Genetic Alteration

Mutation #1: RMCE Targeted Mutagenesis

Type of Allele	Cassette Acceptor
Targeted Gene	Name: gene trap ROSA 26, Philippe Soriano Symbol: Gt(ROSA)26Sor NCBI: 14910
Allele	Name: targeted mutation 1 Symbol: Gt(ROSA)26Sor ^{tm1} (Pdx1.YFP)Mgn
Description of Targeting Vector	This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a Lox66 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the bacterial EM7 promoter, and a Lox2272 site. These features enable use of <i>Recombinase-Mediated Cassette Exchange</i> (RMCE) for the rapid insertion of various DNAs into the the Rosa26 gene locus.
Vector Genbank File	pRosa26.LCA.gb
Allele Map	<i>Not Provided</i>
PCR Genotyping Protocol	R26.Pdx1.YFP_PCR_genotyping_protocol.docx


Type of Allele	Conditional Activating
Exchanged Cassette Gene Name	pancreatic and duodenal homeobox 1 (Pdx1)
Exchanged Cassette Allele Name	Rosa26{(Pdx1/YFP)Mgn}
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 Pkg-Hygro and Lox2272 sites.
Exchanged Cassette Genbank File	phygro66.2272.Pdx1.YFP.gb
PCR Genotyping Protocol	<i>Not provided</i>
Citations	<i>Not provided</i>


Background Strain Information

Strain Type	Congenic Strain
Chimera/Founder Genetic Background	129S6/SvEvTac
Current Genetic Background	C57BL/6J
Number of Generations Backcrossed	6
Strain Description	<p>Founder chimeras were bred to C57Bl/6J for 6 generations.</p> <p>88.21% C57Bl6/J at cryopreservation</p> <p>Cryopreserved in 2014.</p> <p>Trial IVF 82.26% fertilization rate.</p>

Attachments

 [Pdx1_YFP_alternative_genotyping_protocol.docx](#) - Added on August 8, 2018 at 10:26 AM by Jennifer Skelton

 [R26.Pdx1.YFP.pptx](#) - Added on February 8, 2018 at 2:52 PM by Jennifer Skelton

 [Rosa26Pdx1YFPphygroPCR_Protocol.docx](#) - Added on December 9, 2016 at 10:29 AM by Hannah Clayton