

This is an unpublished mouse strain in which the first exon of Pdx1 was replaced with coding sequences for Cre recombinase by gene targeting. The mouse was developed by Mark Magnuson.

Keywords: [Cre](#) [Pdx1](#) [Mgn](#)

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Mouse Information

Common Name	Pdx1 ^{Cre}
Research Applications	<i>Not provided</i>
MMRRC ID	<i>Not provided</i>
Jackson Laboratories Stock No	<i>Not provided</i>
VCMR ID	OV
Additional Strain Information	<p>An 8.62 kb region of this gene has been replaced by tandemly oriented Lox66 and Lox2272 sites flanking positive (puromycin) and negative (HSV-TK) selectable markers.</p> <p>The Pdx1.Cre exchange vector was made by cloning Cre coding sequences immediately following the translation initiation site in the Pdx1 gene. The basal Pdx1 exchange vector contains all of the 8,610 bp of DNA from Pdx1 gene (promoter and exon 1 that is absent in the Pdx1LCA allele, Lox66 and Lox2272 sites, and a flrtd (flanked by FRT) hygromycin selection cassette.</p>

Genetic Alteration

Mutation #1: RMCE Targeted Mutagenesis	
Type of Allele	Cassette Acceptor
Targeted Gene	Name: pancreatic and duodenal homeobox 1 Symbol: Pdx1 NCBI: 18609
Allele	Name: pancreatic and duodenal homeobox 1; cre Symbol: Pdx1 ^{cre}
Description of Targeting Vector	An 8.62 kb region of this gene has been replaced by tandemly oriented Lox66 and Lox2272 sites flanking positive (puromycin) and negative (HSV-TK) selectable markers.
Vector Genbank File	<i>Not provided</i>
Allele Map	<i>Not Provided</i>

PCR Genotyping Protocol	Pdx1.Cre_PCR_genotyping_protocol.docx
Type of Allele	Gene Replacement
Exchanged Cassette Gene Name	pancreatic and duodenal homeobox 1 (Pdx1)
Exchanged Cassette Allele Name	Pdx1{Cre}
Description of Exchange Vector	The Pdx1.Cre exchange vector was made by cloning Cre coding sequences immediately following the translation initiation site in the Pdx1 gene. The basal Pdx1 exchange vector contains all of the 8,610 bp of DNA from Pdx1 gene (promoter and exon 1 that is absent in the Pdx1 ^{LCA} allele, Lox66 and Lox2272 sites, and a flrted (flanked by FRT) hygromycin selection cassette.
Exchanged Cassette Genbank File	Pdx1.Cre.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	<i>Not provided</i>
Strain Description	93.75% C57Bl6/J at cryopreservation Cryopreserved in 2013.

Attachment

 [pdx1crehygro.png](#) - Added on July 7, 2015 at 10:28 AM by [Mark Magnuson](#)

The Pdx1.cre vector was exchanged into Pdx1LCA mESCs utilizing Recombinase Mediated Cassette Exchange (RMCE) and mice were generated from the correctly exchanged mESCs. These animals were subsequently mated with Flpe mice in order to remove the HygroR cassette.



