

My Account

Login
Create Account

Resources

View All (813)

Adenoviruses (137)

Antibodies (175)

Bioimages (67)

Genomics Studies (145)

mESC Lines (68)

Mouse Strains (120)

Miscellaneous (46)

Protocols (55)

Research Data (4)

Resource Tags (389)

Visualization (9)

Research & Cores

Core Facilities (5)

Research Highlights (5)

Research Networks

Research Objectives

Information

About the BCBC

BCBC Events

Branding & Logos

Career Opportunities

Health

NIH hESC Registry

Policies & Guidelines

Member Publications

Research Programs

Research Investigators

Member Directory

Tutorials

Ptf1a-W298A - Mouse Strain RES218**Mouse Information**

Common Name:	Ptf1a-W298A
MGI Official Name:	Ptf1a ^{tm2(W298A)Macd}
Description:	This mouse strain has a 2-bp site-directed mutation in the endogenous Ptf1a locus that changes codon 298 from tryptophan to alanine. The mutation disrupts the ability of the PTF1a protein to bind RBPJ. Mice heterozygous for the mutation are viable, fertile, of normal size, and do not display any behavioral abnormalities. Mice homozygous for the mutation phenocopy the homozygous Ptf1a-null. Newborn homozygotes are apneustic, devoid of the dl4 and dlA GABAergic dorsal interneurons, have an incomplete cerebellum, and die shortly after birth.
Categories:	None specified.


Genetic Alterations

1) RMCE Targeted Mutagenesis					
Type of Allele	Cassette Acceptor				
Targeted Gene	pancreas specific transcription factor, 1a (Ptf1a - NCBI GeneID:19213)				
Targeted Allele	targeted mutation 1 (Ptf1a ^{tm1(LCA)} - MGI:1328312)				
Description of Targeting Vector	Not Available				
Targeting Vector Genbank File	Ptf1a.LCA.gb				
Recombinase-Mediated Cassette Exchange Stage					
Type of Allele:	<i>Not available</i>				
Exchanged Cassette Gene	Pancreas transcription factor 1a (Ptf1a - NCBI GeneID:19213)				
Exchanged Cassette Allele Name	Ptf1a ^{tm2(W298A)}				
Description of Exchange Vector	The vector ptf1a.MutJ.hygro contained loxP sites flanking the targeting region that contained (in order) the following: Ptf1a gene sequence from -1.7-Kb to +2.4-Kb; an FRT site; the pgk-hygromycin resistance gene; an FRT site. See the map and annotated sequence of the RMCE targeting fragment in the images section.				
Exchange Vector Genbank File:	ptf1aMutJ.gb				
Citations	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td>17938243</td> <td>Early pancreatic development requires the vertebrate Suppressor of Hairless (RBPJ) in the PTF1 bHLH complex. (2007) <i>Genes Dev</i> 21: 2629-43 (Added 2007-12-20 12:08:07)</td> </tr> </tbody> </table>	PubMedID	Citation	17938243	Early pancreatic development requires the vertebrate Suppressor of Hairless (RBPJ) in the PTF1 bHLH complex. (2007) <i>Genes Dev</i> 21: 2629-43 (Added 2007-12-20 12:08:07)
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17938243	Early pancreatic development requires the vertebrate Suppressor of Hairless (RBPJ) in the PTF1 bHLH complex. (2007) <i>Genes Dev</i> 21: 2629-43 (Added 2007-12-20 12:08:07)				


Strain Information

Strain Type:	Inbred Strain
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	C57BL/6 (date recorded: 03/27/2015)

Access Status

 This resource is publicly viewable.

Request this Resource


 Request from a repository

Primary contributor: [MacDonald Lab](#)
Co-contributed by:
• [BCBC Mouse / ES Cell Core](#)

Resource Tags


mouse, mouse strain, Ptf1a, Ptf1a-W298A

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 Read more about tags

Resource History & Actions

Approved on Dec 29, 2007
Last modified on Sep 01, 2009

 Login to edit or request an edit

Related resources**BCBC**

No matching resources

Other Consortia

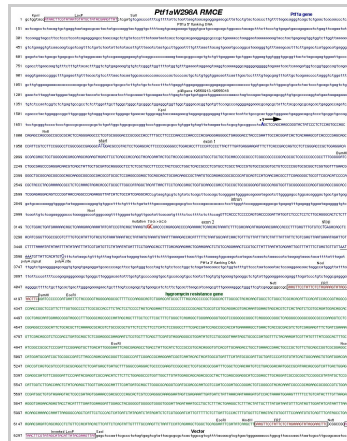
No matching resources

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

Strain Description: The chimeric founder mice were backcrossed to C57Bl/6 mice.

Associated Images

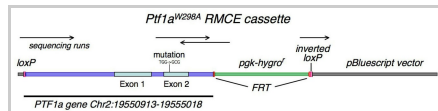
Image 1



Description:
The conceptual nucleotide sequence of the cassette for the recombination-mediated exchange to create the W298A mutation of the Ptf1a locus via the Ptf1a-LCA acceptor allele. From top (5') to bottom (3'), the order of functional elements are: MAGENTA box, loxP site. BLUE, Ptf1a gene sequence from -1.7-Kb to +2.4-Kb; lower case indicates sequentially the 5' flanking, the intron, and the 3' flanking regions. RED box, FRT site. GREEN, the pgk-hygromycin resistance gene. RED box, FRT site. MAGENTA box, loxP site. BLACK lower case, plasmid vector sequence. See the schematic image for regions confirmed by DNA-sequencing.

Reference:
17938243

Image 2

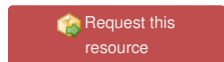


Description:
Schematic of the Ptf1aW298A cassette for exchange into the Ptf1a-LCA acceptor. The horizontal arrows show the DNA-sequencing runs used to verify the proper sequence for key elements.

Reference:
17938243

Repositories

MacDonald Lab



Stock #: Ptf1aW298A
Availability Notes: Not provided

Contact Information

Preferred Contact

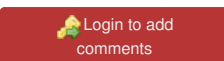
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Institution	Not provided
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Associated Publications

No publications associated

Comments

There are no comments for this entry.



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