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ptf1a^{YFP} - Mouse Strain RES236**Mouse Information**

Common Name:	ptf1a ^{YFP}
MGI Official Name:	Ptf1a ^{tm1Mgn}
Description:	Ptf1a ^{YFP} mice may be used to visualize yellow fluorescent protein (YFP) expression from the ptf1a allele. Ptf1a is expressed in pancreatic buds beginning at E9.5 and plays a vital role in the growth and lineage specification of pancreatic multipotent progenitor cells (MPCs). Ptf1a is also expressed in the neuronal precursors of the cerebellum, spinal cord, and retina where it also performs fate determining roles.
Categories:	Fluorescent Probes

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:	Not available				
Exchanged Cassette Gene	Not provided. (MGI:19213)				
Exchanged Cassette Allele Name	ptf1a ^{tm1.1(YFP)}				
Description of Exchange Vector	ptf1a{YFP}				
Exchange Vector Genbank File:	Not Available				
Citations	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td>18294628</td> <td>Pdx-1 and Ptf1a concurrently determine fate specification of pancreatic multipotent progenitor cells. (2008) <i>Dev Biol</i> 316: 74-86 (Added 2008-04-30 08:35:51)</td> </tr> </tbody> </table>	PubMedID	Citation	18294628	Pdx-1 and Ptf1a concurrently determine fate specification of pancreatic multipotent progenitor cells. (2008) <i>Dev Biol</i> 316 : 74-86 (Added 2008-04-30 08:35:51)
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Strain Information

Strain Type:	Mixed
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	CD-1 (date recorded: 03/27/2015)
Strain Description:	After achieving germline transmission, mice carrying the ptf1a ^{YFP+hygroR} allele were mated to a FlpE-expressing transgenic line in order to remove the FRT flanked hygroR cassette. Ptf1a ^{YFP} mice were then backcrossed to CD-1 outbred mice for eight generations.


Associated Images

Image 1

Access Status

 This resource is publicly viewable.


Request this Resource


 Request from a repository

Primary contributor: [Magnuson Lab](#)

Resource Tags

mouse, mouse strain, Ptf1a, Ptf1a^{tm1Mgn}, ptf1a^{YFP}, RMCE, YFP

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Resource History & Actions

Approved on May 10, 2008
Last modified on Apr 22, 2015

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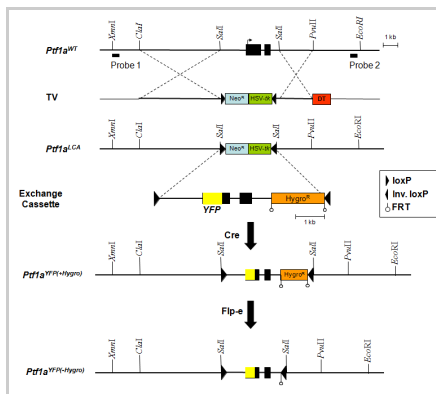
Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

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

**Description:**

Schematic representation of the Ptf1a locus, targeting vector, ptf1a^{LCA} allele, ptf1a^{YFP} exchange cassette, the ptf1a^{YFP + hygR}, and the ptf1a^{YFP - hygR} allele. A 4.1 kb Ptf1a fragment including both exons was replaced by two pgk-driven selection cassettes, neo^R and HSV-tk, flanked by inversely orientated loxP sites during gene targeting. A pgk-driven Diphtheria toxin A cassette is located beyond the end of the short arm of DNA homology. YFP coding sequences replace 5' UTR and Ptf1a coding sequences in exon 1. Exon 2 is retained in the exchange cassette to supply RNA splicing and poly adenylation signals with a FRT-flanked hygromycin resistance cassette located downstream of Ptf1a sequences for positive selection following RMCE. Insertion of the YFP exchange cassette into the Ptf1a^{LCA} was accomplished by RMCE creating the Ptf1a^{YFP + hygR} allele from which mice were derived. Subsequent breeding to Flp-e transgenics eliminated the hygR and one FRT site from this mouse strain.

Reference:

18294628

Repositories**MMRRC**Request via www.mmrc.org website**Stock #:** 029175**Availability Notes:** *Not provided***Magnuson Lab**

Request this resource

Stock #: VUMC - GZ**Availability Notes:** *Not provided***Contact Information****Preferred Contact**

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Associated Publications*No publications associated***Comments***There are no comments for this entry.*

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