

**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<sup>YFP</sup> - Mouse Strain RES236****Mouse Information**

<b>Common Name:</b>	ptf1a <sup>YFP</sup>
<b>MGI Official Name:</b>	Ptf1a <sup>tm1Mgn</sup>
<b>Description:</b>	Ptf1a <sup>YFP</sup> 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.
<b>Categories:</b>	Fluorescent Probes

**Genetic Alterations**

<b>1) RMCE Targeted Mutagenesis</b>					
<b>Type of Allele</b>	Cassette Acceptor				
<b>Targeted Gene</b>	pancreas specific transcription factor, 1a (Ptf1a - <a href="#">NCBI GeneID:19213</a> )				
<b>Targeted Allele</b>	targeted mutation 1 (Ptf1a <sup>tm1(LCA)</sup> - <a href="#">MGI:1328312</a> )				
<b>Description of Targeting Vector</b>	Not Available				
<b>Targeting Vector Genbank File</b>	<a href="#">Ptf1a.LCA.gb</a>				
<b>Recombinase-Mediated Cassette Exchange Stage</b>					
<b>Type of Allele:</b>	Not available				
<b>Exchanged Cassette Gene</b>	Not provided. ( <a href="#">MGI:19213</a> )				
<b>Exchanged Cassette Allele Name</b>	ptf1a <sup>tm1.1(YFP)</sup>				
<b>Description of Exchange Vector</b>	ptf1a{YFP}				
<b>Exchange Vector Genbank File:</b>	Not Available				
<b>Citations</b>	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td><a href="#">18294628</a></td> <td><a href="#">Pdx-1 and Ptf1a concurrently determine fate specification of pancreatic multipotent progenitor cells.</a> (2008) <i>Dev Biol</i> <b>316</b>: 74-86 (Added 2008-04-30 08:35:51)</td> </tr> </tbody> </table>	PubMedID	Citation	<a href="#">18294628</a>	<a href="#">Pdx-1 and Ptf1a concurrently determine fate specification of pancreatic multipotent progenitor cells.</a> (2008) <i>Dev Biol</i> <b>316</b> : 74-86 (Added 2008-04-30 08:35:51)
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**Strain Information**

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


**Associated Images**

Image 1

**Access Status**

 This resource is publicly viewable.


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Primary contributor: [Magnuson Lab](#)

**Resource Tags**

mouse, mouse strain, Ptf1a, Ptf1a<sup>tm1Mgn</sup>, ptf1a<sup>YFP</sup>, RMCE, YFP

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**Resource History & Actions**

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

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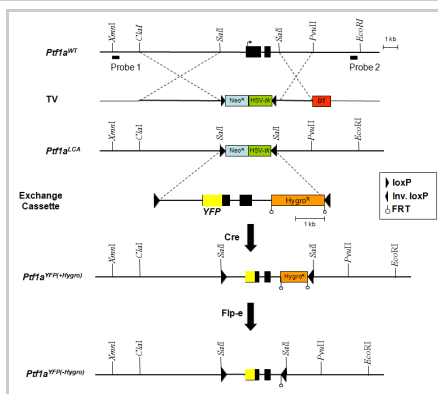
**Related resources****BCBC**

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<sup>LCA</sup> allele, ptf1a<sup>YFP</sup> exchange cassette, the ptf1a<sup>YFP + hygro<sup>R</sup></sup>, and the ptf1a<sup>YFP - hygro<sup>R</sup></sup> allele. A 4.1 kb Ptf1a fragment including both exons was replaced by two pgk-driven selection cassettes, neo<sup>R</sup> 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<sup>LCA</sup> was accomplished by RMCE creating the Ptf1a<sup>YFP + hygro<sup>R</sup></sup> allele from which mice were derived. Subsequent breeding to Flp-e transgenics eliminated the hygro<sup>R</sup> and one FRT site from this mouse strain.

**Reference:**

18294628

**Repositories****MMRRC**Request via [www.mmrc.org](http://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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