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Ngn3^{T2A.nCre} - Mouse Strain RES4538**Mouse Information**

Common Name:	Ngn3 ^{T2A.nCre}
MGI Official Name:	Ngn3 ^{T2A.nCreGgu}
Description:	In this mouse line, one of the two bi-partite Cre molecules, nCre, was knocked in upstream of Ngn3 coding sequence by RMCE in Ngn3 ^{HALCA} ES cell line. nCre sequence is expressed from polycistronic mRNA linked by 2a peptide to Ngn3 coding sequence allowing for simultaneous expression of both proteins from the Ngn3 promoter. This mouse line, in combination with Nkx2.2 ^{cCre} mouse line, allows for the labeling of pancreatic epithelium cells that co-express high levels of Ngn3 and Nkx2.2 during mouse embryonic development.
Categories:	Cre-lox floxed alleles


Genetic Alterations

1) RMCE Targeted Mutagenesis	
Type of Allele	Cassette Acceptor
Targeted Gene	Neurogenin 3 (Neurog3 - NCBI GeneID:11925)
Targeted Allele	<i>Not provided</i>
Description of Targeting Vector	The targeting vector contains a 5.5 kb 5' arm and a 3.5 kb 3' arm. Lox71 and Lox2272 sites were inserted flanking the Ngn3 gene, where Ngn3 cDNA was replaced with that encoding for an HA-tagged Ngn3 protein. The vector also contains a FRT-flanked Pgk-Puro-deltaTK cassette for positive selection by puromycin (targeting events) and negative selection by ganciclovir (RMCE events).
Targeting Vector Genbank File	Ngn3HALCA.gb
Recombinase-Mediated Cassette Exchange Stage	
Type of Allele:	Gene Replacement
Exchanged Cassette Gene	Neurogenin 3 (Neurog3 - NCBI GeneID:11925)
Exchanged Cassette Allele Name	Ngn3 ^{T2A.nCre}
Description of Exchange Vector	The pEx.Ngn3.nCre exchange vector was made on a backbone of a basal exchange vector which contains Lox71/Lox2272 sites and a flrtd (flanked by FRT) Pgk-Hygro selection cassette for positive selection of ES cells after RMCE. nCre sequence linked by 2a peptide to Ngn3 coding sequence was inserted between Pgk-Hygro and Lox2272 site.
Exchange Vector Genbank File:	pEx.Ngn3.nCre.gb
Citations	Not Available


Strain Information

Strain Type:	Mixed
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	C57BL/6J (date recorded: 09/13/2012)
Strain Description:	Not provided

Access Status

 This resource is publicly viewable.

Request this Resource

 Request from a repository

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

Resource Tags


mouse, mouse strain, Ngn3^{T2A.nCre}, Ngn3^{T2A.nCreGgu}

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Resource History & Actions

Approved on Oct 09, 2012
Last modified on Nov 12, 2012

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Related resources**BCBC**

No matching resources

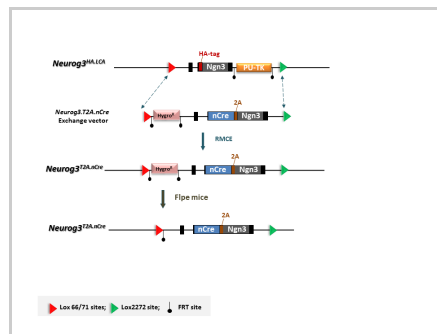
Other Consortia

No matching resources

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

Associated Images

Image 1



Description:

The Neurog3.T2A.nCre vector was exchanged into Neurog3^{HA.LCA} mESCs and mice were generated from the correctly exchanged cells. These mice were subsequently mated to F1pe mice to remove the Hygro^R cassette.

Reference:

Not provided

Repositories

BCBC members may [Login](#) to request this resource.

Contact Information

Preferred Contact

Name	Guoqiang Gu
Institution	Vanderbilt University
Phone	615-936-3634
Email	guoqiang.gu@vanderbilt.edu

Associated Publications

No publications associated

Comments

There are no comments for this entry.

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