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Pdx1^{H2B.Neptune} - ES Cell Line RES4539**ESC Line Information**

Cell Line Name:	Pdx1 ^{H2B.Neptune}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	In this line, the first exon of Pdx1 is replaced with coding sequence for mNeptune (a far red fluorescent protein) using RMCE in the Pdx1 LCA allele. Generation of a Pdx-promoter driven mNeptune fluorescent allele will enable the isolation of pancreatic lineage cells by FACS and broaden the possibilities for combinatorial sorting with other fluorescent alleles.

Genetic Alterations

1) RMCE Targeted Mutagenesis	
Type of Allele	Cassette Acceptor
Targeted Gene	pancreatic and duodenal homeobox 1 (Pdx1 - NCBI GeneID:18609)
Targeted Allele	targeted mutation 1 (Pdx1 ^{tm1(LCA)} - MGI:102851)
Description of Targeting Vector	An 8.62 kb region of this gene has been replaced by tandemly oriented Lox66 and Lox2272 sites flanking positive (puromycin) and negative (HSV-TK) selectable markers.
Targeting Vector Genbank File	ppdx1.tv.gb
Recombinase-Mediated Cassette Exchange Stage	
Type of Allele:	Gene Replacement
Exchanged Cassette Gene	pancreatic and duodenal homeobox 1 [Mus musculus] (Pdx1 - NCBI GeneID:18609)
Exchanged Cassette Allele Name	Pdx1 ^{H2B.Neptune}
Description of Exchange Vector	The Pdx1.H2B.Neptune vector was made on a backbone of a basal Pdx1 exchange vector which contains 8.610 kb DNA sequence from Pdx1 promoter region originally removed by gene targeting in the Pdx1.LCA allele, part of Pdx1 exon 1, Lox71 and Lox2272 sites and a flrtd (flanked by FRT) pgk-Hygro cassette for positive selection of ES cells after RMCE. H2B.Neptune sequence was cloned into the first exon of Pdx1 right after the ATG site.
Exchange Vector Genbank File:	Pdx1.H2B-Neptune.gb
Citations	Not Available


Associated Images

Image 1


Description:

The Pdx1.H2B.Neptune vector was exchanged into the Pdx1LCA allele via RMCE, thus generating a Pdx1H2B.Neptune allele.

Access Status

 This resource is publicly viewable.


Request this Resource

 Request from a repository

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

Resource Tags


embryonic, es, esc, Pdx1^{H2B.Neptune}, stem, TL-1

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Resource History & Actions

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

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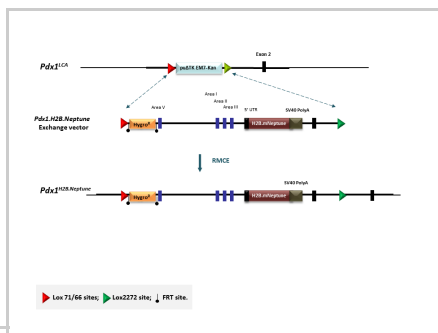
Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

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



Reference:
Not provided

Repositories

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

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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