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Ngn3^{T2A.nCre} - ES Cell Line RES4489**ESC Line Information**

| | |
|----------------------------|---|
| Cell Line Name: | Ngn3 ^{T2A.nCre} |
| Parental Cell Line: | TL-1 / Ngn3.HA.LCA |
| Background Strain: | 129 |
| Culturing Protocol: | Std_mESC_Culture.doc |
| Description: | In this mouse ES cell line, one of the two bi-partite Cre molecules, nCre, was knocked in upstream of Ngn3 coding sequence by RMCE in Ngn3.HA.LCA 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 Ngn3 promoter. This mouse line, in combination with Nkx2.2-cCre mouse line, allows to label pancreatic epithelium cells that co-express high levels of Ngn3 and Nkx2.2 during mouse embryonic development. |

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 were inserted between Pgk-Hygro and Lox2272 site. |
| Exchange Vector Genbank File: | pEx.Ngn3.nCre.gb |
| Citations | Not Available |


Associated Images

Image 1


Description:

Targeting strategy for the exchange of Neurog3.T2A.nCre into

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

embryonic, es, esc, Ngn3^{T2A.nCre}, stem, TL1-Ngn3.HA.LCA

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Resource History & Actions

Approved on Oct 09, 2012
Last modified on May 19, 2015

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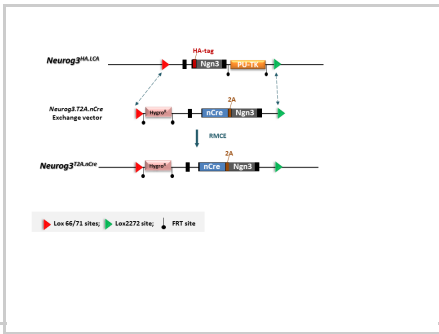
Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

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



Neurog3.HA.LCA mESCs via RMCE.

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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