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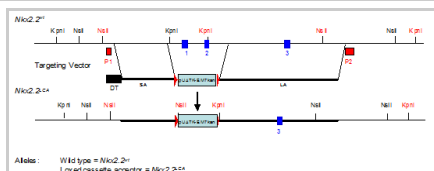
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Nkx2.2^{LCA} - ES Cell Line RES257**ESC Line Information**

Cell Line Name:	Nkx2.2 ^{LCA}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	This ES cell line contains a loxed cassette acceptor (LCA) allele that may be utilized for the exchange of DNAs of interest into the Nkx2.2 locus by recombinase mediated cassette exchange (RMCE). This LCA uses a Lox71/66 and Lox2272 strategy for RMCE and allows for manipulation of a 5.1 kb region of the gene (contains promoter, exon 1, and exon 2). This leads to a variety of experiments that can be performed using a wide range of cassette designs.

Genetic Alterations**1) Targeted Mutagenesis**

Type of Allele	Cassette Acceptor
Targeted Gene	NK2 transcription factor related, locus 2 (Nkx2-2 - NCBI GeneID:18088)
Targeted Allele	targeted mutation 1 (Nkx2.2 ^{m1(LCA)})
Description of Targeting Vector	Through homologous recombination in ES cells, a 5.115 kb region of the Nkx2.2 gene is replaced by a floxed tk-neo cassette, a puromycin-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter (pUTK) and a neomycin resistant gene driven by the bacterial EM7 promoter (EM7neo) flanked by minimal (34 bp) tandemly oriented lox71 and lox2272 sites (Cre-recombinase recognition sequences).
Targeting Vector Genbank File	pNkx2.2.TV.gb
Citations	Not Available

Associated Images**Image 1****Description:**

Through homologous recombination in ES cells, a 5.115 kb region of the Nkx2.2 gene was replaced with a pgk-puromycin-delta thymidine kinase [pu(Delta)TK]-fusion gene and a EM7-Kanamycin resistance cassette flanked by tandemly oriented lox71 and lox2272 sites (Cre-recombinase recognition sequences).


Reference:

Not provided


Repositories

Magnuson Lab

Access Status

 This resource is publicly viewable.

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Primary contributor: [Magnuson Lab](#)

Co-contributed by:

- [BCBC Mouse / ES Cell Core](#)

Resource Tags

embryonic, es, ESC, esc, LCA, mESC Core, Nkx2.2, Nkx2.2^{LCA}, RMCE, stem, TL-1

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Resource History & Actions

Approved on Mar 25, 2008

Last modified on Mar 23, 2015

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

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Stock #: *Not provided*

Availability Notes: *Not provided*

Contact Information

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Associated Publications

No publications associated

Comments

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