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

Foxa2^{LCA} - ES Cell Line RES4547

ESC Line Information

Cell Line Name:	Foxa2^{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 Foxa2 locus by recombinase mediated cassette exchange (RMCE). This LCA uses a Lox66/71 and Lox2272 strategy for RMCE and allows for manipulation of a 4.7 kb region of the gene (contains a promoter and all exons: exon 1, 2 and 3). This leads to a variety of experiments that can be performed using a wide range of cassette designs.

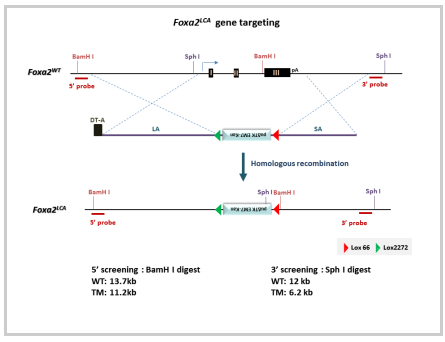
Genetic Alterations

1) Targeted Mutagenesis

Type of Allele	Cassette Acceptor
Targeted Gene	forkhead box A2 (Foxa2 - NCBI GeneID:15376)
Targeted Allele	Forkhead box A2 loxed cassette acceptor (Foxa2^{LCA})
Description of Targeting Vector	The pFoxa2.LCA targeting vector is made by BAC recombineering and contains 7762bp 5' and a 4009bp 3' homology arms. 5' homology arm is followed by Lox66 site, flrted (FRT flanked) Pgk-PUdTK-EM7-Neo selection marker and lox2272 site. Pgk-PUdTK marker allows positive selection for targeting events with puromycin and negative selection for RMCE events with ganciclovir. EM7-Kanomycin cassette is used for positive selection in bacterial cells.
Targeting Vector Genbank File	pFoxa2.LCA.gb
Citations	Not Available

Associated Images

Image 1



Description:

Homologous recombination in mouse ES cells was performed to generate a loxed cassette acceptor allele (LCA). This ES cell line contains an LCA in which a 4.7 kb region (including the promoter and exons 1, 2 and 3) of the gene have been replaced by a lox71 site, a puromycin-(delta)-thymidine kinase fusion gene driven by mouse phosphogycerol kinase promoter, a kanamycin reisitance gene driven by the bacterial EM7 promoter and a lox2272 site. These features enable use of Recombinase Mediated Cassette Exchange

Access Status

This resource is publicly viewable.

Request this Resource

Request from a repository

Primary contributor: Zaret Lab
Co-contributed by:
- BCBC Mouse / ES Cell Core

Resource Tags

embryonic, es, esc, Foxa2^{LCA}, stem, TL-1

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Resource History & Actions

Approved on Nov 29, 2012
Last modified on Jun 26, 2015

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BCBC

No matching resources

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No matching resources

Data courtesy of dkCOIN. Only public resources are displayed.

(RMCE) for the rapid insertion of various DNAs into the Foxa2 gene locus.

Reference:
Not provided

Repositories

Magnuson Lab

Request this resource

Stock #: *Not provided*
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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