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Rosa26^{LCA} - ES Cell Line RES262

ESC Line Information

Cell Line Name:	Rosa26^{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This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a Lox66 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the bacterial EM7 promoter, and a Lox2272 site. These features enable use of Recombinase-Mediated Cassette Exchange for the rapid insertion of various DNAs into the Rosa26 gene locus.

Genetic Alterations

1) Targeted Mutagenesis

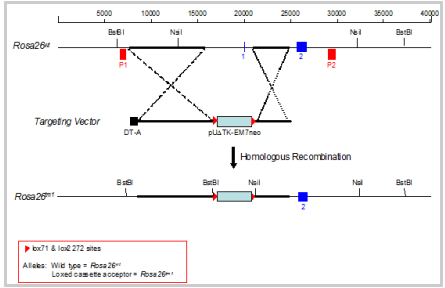
Type of Allele	Cassette Acceptor
Targeted Gene	gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - NCBI GeneID:14910)
Targeted Allele	targeted mutation 1 (Rosa26$^{tm1(LCA)}$ - MGI:104735)
Description of Targeting Vector	The Rosa 26 cassette acceptor allele was created by replacing a 5.165 kb region of this gene containing exon 1 with a floxed tk-neo cassette, a puromycin-delta-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter (pU-deltaTK) and a neomycin resistant gene driven by the bacterial EM7 promoter (EM7neo) flanked by minimal (34 bp) tandemly oriented lox71 and lox2272 sites.
Targeting Vector Genbank File	pRosa26.LCA.gb

Citations

PubMedID	Citation
21324933	Quantification of factors influencing fluorescent protein expression using RMCE to generate an allelic series in the ROSA26 locus in mice. (2011) *Dis Model Mech* **4**: 537-47 (Added 2012-09-24 16:36:23.369844)

Associated Images

Image 1



Description:

Homologous recombination in ES cells was performed to generate a loxed cassette acceptor allele. This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a lox71 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin

Access Status

This resource is publicly viewable.

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Request from a repository

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

Resource Tags

embryonic, es, esc, LCA, mESC Core, RMCE, Rosa, Rosa26, Rosa26^{LCA}, stem, TL-1

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Resource History & Actions

Approved on Aug 12, 2008
Last modified on Nov 27, 2012

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resistance gene driven by the bacterial EM7 promoter, and a lox2272 site. These features enable use of Recombinase-Mediated Cassette Exchange (RMCE) for the rapid insertion of various DNAs into the the Rosa26 gene locus.

Reference:
21324933

Repositories

Magnuson Lab

Request this resource

Stock #: *Not provided*
Availability Notes: *Not provided*

Contact Information

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Associated Publications

No publications associated

Comments

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