ESC Line Information

Cell Line Name: Rosa26LCA
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This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a Lox66 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the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 (Rosa26tm1(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

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 This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a lox71 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the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

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Associated Publications

No publications associated

Comments

There are no comments for this entry.