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Sox17^{GFPCre} - ES Cell Line RES602

ESC Line Information

Cell Line Name:	Sox17^{GFPCre}
Parental Cell Line:	TL-1 / Sox17{LCA} clone 1G3
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	Using an RMCE strategy, we inserted a Cre-GFP (Green fluorescent protein) fusion protein into a Sox17[LCA] allele thereby replacing Sox17 coding sequences. The Sox17-CreGFP ESCs may be used to track Sox17-expressing cells and their progeny, or to conditionally inactivate genes in Sox17-expressing cells. Mark the expression of Sox17 with both Cre and GFP. Cre will enable lineage tracing using reporter alleles that are activated by cre recombination. GFP will enable direct visualization of Sox17 gene expression.

Genetic Alterations

1) RMCE Targeted Mutagenesis	
Type of Allele	Cassette Acceptor
Targeted Gene	SRY-box containing gene 17 (Sox17 - NCBI GeneID:20671)
Targeted Allele	targeted mutation 1 (Sox17$^{tm1(LCA)}$ - MGI:107543)
Description of Targeting Vector	pSox17.LCA e targeting vector contains 10.288 kb 5' arm and 4.525 kb5 3'arm. Lox66 and Lox2272 sites are inserted flanking PuTK selection marker for positive selection for targeting events with puromycin and negative selection for RMCE events with ganciclovir.
Targeting Vector Genbank File	pmSox17.LCA.gb
Recombinase-Mediated Cassette Exchange Stage	
Type of Allele:	Conditional Activating
Exchanged Cassette Gene	green fluorescent protein (Cre-GFP)
Exchanged Cassette Allele Name	Sox17$^{Cre-GFP}$
Description of Exchange Vector	not available
Exchange Vector Genbank File:	pBSLox-Sox17-CreGFP-Hygro_AG-P.gb
Citations	Not Available

Associated Images

Image 1

Description:
Through homologous recombination in ES cells, a 3.793 kb region of the mouse Sox17 gene was replaced by a floxed tk-neo cassette, a puromycin-delta-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter (pUdeltaTK) and a neomycin resistant gene driven by the bacterial EM7 promoter (EM7neo) flanked by minimal (34 bp) tandemly

Access Status

This resource is publicly viewable.

Request this Resource

Request from a repository

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

Resource Tags

Cre, embryonic, es, esc, GFP, mESC Core, Sox17, Sox17^{GFPCre}, stem, TL1 - Sox17[LCA] 1G3

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Resource History & Actions

Approved on Dec 02, 2008
Last modified on Apr 13, 2015

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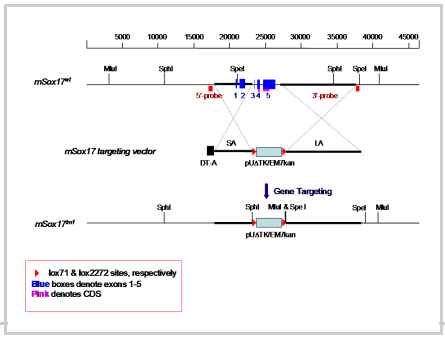
Data courtesy of dkCOIN. Only public resources are displayed.



oriented lox71 and lox2272 sites (Cre-recombinase recognition sequences).

Reference:
Not provided

Repositories

Magnuson Lab

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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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