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Sox17^{CreERT2} - Mouse Strain RES1101**Mouse Information**

Common Name:	Sox17 ^{CreERT2}
MGI Official Name:	Sox17 ^{tm1.2Mgn}
Description:	Sox17 ^{CreERT2} mice may be used either to track Sox17-expressing cells or their progeny or to conditionally inactivate genes in Sox17-expressing cells at specific time points by tamoxifen injection. This line is complementary to Sox17-CreGFP and may avoid possible interferences of expression in the extra-embryonic visceral endoderm. We plan to analyze the effects of a direct activation/deletion of the Wnt pathway in the endoderm by crossing the Sox17-CreERT2 with the gain- and loss-of-function of beta-catenin.
Categories:	Fluorescent Probes


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 kb 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	mitogen-activated protein kinase 3 (ERT2 - NCBI GeneID:26417)
Exchanged Cassette Allele Name	Sox17 ^{CreERT2}
Description of Exchange Vector	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 (pUdelta-TK) 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).
Exchange Vector Genbank File:	pBSLoxSox17CreERT2Hygro.gb
Citations	Not Available


Strain Information

Strain Type:	Mixed
Chimera/Founder Genetic Background:	129S6/SvEvTac

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](#)
- [Grapin-Botton Lab](#)

Resource Tags

mouse, mouse strain, Sox17^{CreERT2}

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Resource History & Actions

Approved on Mar 04, 2009
Last modified on Oct 30, 2009

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Related resources**BCBC**

No matching resources

Other Consortia

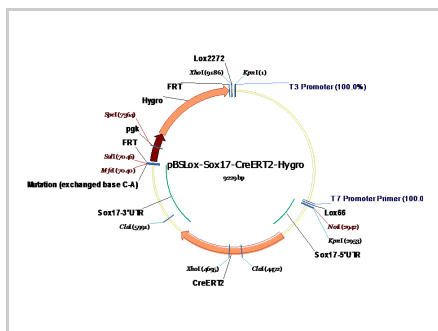
No matching resources

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

Current Genetic Background: Not provided (date recorded: Not provided)
Strain Description: Not provided

Associated Images

Image 1



Description:

This plasmid was constructed to insert, using recombinase-mediated cassette exchange, a 4103 bp fragment containing a CreERT2 fusion gene into the Sox17 gene locus thereby replacing the entire coding sequence of Sox17 gene. The Sox17-CreERT2 fragment was constructed by PCR amplification and insertion into the pBSL66-2272 plasmid with Not1 and Sal1. The sequencing of the PCR amplified fragment has revealed a mutation into the end of the Sox17-3'UTR. To facilitate positive selection of cassette-exchanged ES cells, a pgk-hygro selection cassette flanked by FRT sites was placed immediately downstream of the Sox17-CreERT2 fusion gene.

Reference:

Not provided

Repositories

Magnuson Lab

Request this resource

Stock #: LC BSID0072
Availability Notes: *Not provided*

Grapin-Botton Lab

Request this resource

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

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Associated Publications

No publications associated

Comments

There are no comments for this entry.

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