**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

# 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 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** | 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$^{CreERT2}$

Login to edit tags

Read more about tags

## Resource History & Actions

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

Login to edit or request an edit

## Related resources

### BCBC

*No matching resources*

### Other Consortia

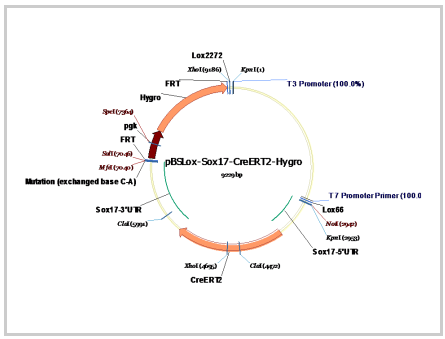
*No matching resources*

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*

## Contact Information

**Preferred Contact**

| | |
|---|---|
| **Name** | Anne Grapin-Botton |
| **Institution** | DanStem, University of Copenhagen |
| **Phone** | +45 29 63 43 98 |
| **Email** | anne.grapin-botton@sund.ku.dk |

## Associated Publications

*No publications associated*

## Comments

*There are no comments for this entry.*

Login to add comments