Common Name: Sst.rTTA.LCA

MGI Official Name: Sst.rTTA.LCA.Mgn

Description: The Sst.rTTA.LCA mice are designed to express a tet-inducible reverse-transactivator under control of somatostatin promoter. Lox66 and Lox2272 sites are inserted flanking 500bp of Sst promoter region, Sst exons I and II and Sst poly A site. The rTTA-beta-globin poly A cassette is put in place of Sst coding exons (I and II). The mice can be used to drive tet-inducible expression in somatostatin expressing cells (Deltacells). Additionally, the Lox66 and Lox2272 sites allow for manipulations of the flanked region by RMCE in the future.

Categories: Cre-lox floxed alleles Tet

Genetic Alterations

1) Targeted Mutagenesis

Type of Allele: Gene Replacement

Targeted Gene: Somatostatin (Sst - NCBI GeneID: 20604)

Targeted Allele: Not provided (Sst.rTTA.LCA)

Description of Targeting Vector: The targeting vector contains 7.3 Kb 5' and a 3.6 Kb 3' homology arms. Lox66 and Lox2272 sites are inserted flanking 500bp of Sst promoter region and exons I and II of somatostatin gene. rTTA gene with beta-globin polyA site is put in place of Sst exons I and II. The vector also contains FRT-flanked puTK-EM7 Neo selection double selection casstete. PuTK is used for positive selection for targeting events with puromycin and negative selection for RMCE events with ganciclovir. EM7-Neo is used for positive selection in bacteria during BAC recombineering process.

Targeting Vector Genbank File: pSst.rTALCA.gb

Citations: Not Available

Strain Information

Strain Type: Mixed

Chimera/Founder Genetic Background: 129S6/SvEvTac

Current Genetic Background: 87.5% C57BL/6J and 12.5% 129S6 (date recorded: 06/28/2013)

Strain Description: Germline male chimeras were mated to C57BL6/J female mice and positive offspring were identified. These offspring were subsequently backcrossed to C57BL6/J animals for a total of three generations.

Associated Images

Image 1

Description: The Sst.rTTA.LCA was targeted
into the SstWT allele via homologous recombination in mESCs. Resulting targeted clones were injected into wild type mouse blastocysts and germline chimeras were generated. These chimeras were mated to wild type mice and the resulting positive offspring were mated to Flpe transgenic animals in order to remove the PuDeltaTK EM7-Kan region of the original gene target.

Reference: Not provided

Repositories

Magnuson Lab

Stock #: VUMC, SD BSID 0103
Availability Notes: Sperm cryo

Contact Information

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Associated Publications
No publications associated

Comments
There are no comments for this entry.