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Sst.rTTA.LCA - ES Cell Line RES4545

ESC Line Information

Cell Line Name:	Sst.rTTA.LCA
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	This allelle is designed to express a tet-inducible reverse-transactivator under control of the 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 cassete replaces Sst coding exons (I and II). The allele can be used to drive tet-inducible expression in somatostatin expressing cells (Delta-cells). Additionally, the Lox66 and Lox2272 sites allow for manipulations of the flanked region by RMCE in the future.

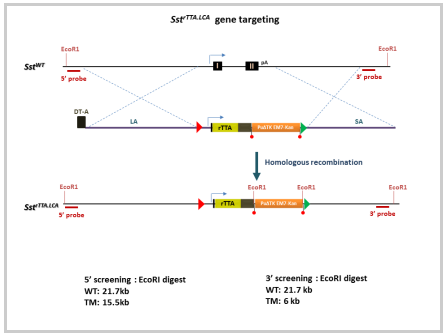
Genetic Alterations

1) Targeted Mutagenesis

Type of Allele	Cassette Acceptor
Targeted Gene	Somatostatin (Sst - NCBI GeneID:20604)
Targeted Allele	Sst.rTTA loxed cassette acceptor (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 the somatostatin gene. The 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 duirng BAC recombineering process.
Targeting Vector Genbank File	pSst.rtTA.LCA.gb
Citations	Not Available

Associated Images

Image 1



Description:

This figure illustrates the gene targeting strategy of Sst, replacing exons I and II with the rTTA gene and beta-globin polyA. 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 duirng BAC recombineering process.

Access Status

This resource is publicly viewable.

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

Resource Tags

embryonic, es, esc, Sst.rTTA.LCA, stem, TL-1

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Resource History & Actions

Approved on Oct 12, 2012
Last modified on Apr 20, 2015

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Data courtesy of dkCOIN. Only public resources are displayed.

Reference:
Not provided

Repositories

Magnuson Lab

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

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Associated Publications

No publications associated

Comments

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