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 allele 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 polyA cassette 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-beta-globin polyA cassette replaces Sst coding exons (I and II). The vector also contains FRT-flanked puTK-EM7 Neo selection double selection cassette. 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.rTTLCA.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 cassette. 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.
### Repositories

**Magnuson Lab**

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### Contact Information

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### Associated Publications

No publications associated

### Comments

There are no comments for this entry.