Neurog3<sup>Cre-ER</sup>.BAC - ES Cell Line RES4529

ESC Line Information

Cell Line Name: Neurog3<sup>Cre-ER</sup>.BAC

Parental Cell Line: TL-1

Background Strain: 129

Culturing Protocol: Std mESC Culture.doc

Description: This line has a single copy of Neurog3.Cre-ER.LCA BAC transgene inserted in a genome. The transgene is designed to express Cre-ER under control of Neurog3 promoter and will allow inducible tracking or gene inactivation in the Ngn3-LOW and Ngn3-HIGH populations of pre-endocrine cells. Additionally, the lox66 and lox2272 sites will allow the BAC transgene to serve as a loxed cassette acceptor (LCA) in ES cells for future recombinase-mediated cassette exchange (RMCE).

Genetic Alterations

1) BAC or Transgene Insertion

Type of Vector: BAC

BAC Clone Number: 121F-10

BAC Resource Library: RPCI-23

Promoter: Neurogenin 3 (Neurog3 - MGI:11925)

Expressed Gene: Cre recombinase (Cre - MGI:277477)

Description of Transgene: Using BAC recombineering, a Cre-ER coding sequence with FRT-flanked puroR-ΔTK selection cassette and a downstream lox2272 site, were inserted in front of the Ngn3 translational start site in the RP23-121F10 BAC. A lox66 site was inserted, via GalK selection, into an unconserved region 5' of the Ngn3 transcriptional start site.

Vector Genbank File: pBACe3_6_RP23_121F10_Ngn3CreER.gb

Citations: Not provided

Associated Images

Image 1

Description: Mouse ES cells that express Cre-ER under control of Ngn3 were made by inserting the Cre-ER coding sequences into a Neurog3 BAC (clone RPCI-23 121F10) by BAC recombineering, and then electroporating the modified BAC clone into mESCs. mESC clones surviving chemical selection were screened to identify clones containing single copy intact BAC insertion and designated as Neurog3 Cre-ER.LCA (Lcoxed Cassette Acceptor) transgenic mESCs.

Reference: Not provided
Repositories
Wright Lab

Stock #: Not provided
Availability Notes: Not provided

Contact Information
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Associated Publications
No publications associated

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