

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

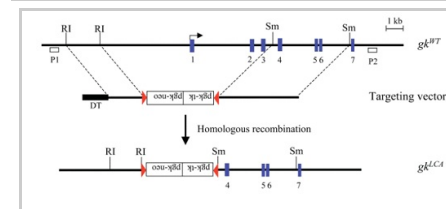
About the BCBC
BCBC Events
Branding & Logos
Career Opportunities
Health
NIH hESC Registry
Policies & Guidelines
Member Publications
Research Programs
Research Investigators
Member Directory
Tutorials

Gck^{LCA} - ES Cell Line RES255**ESC Line Information**

Cell Line Name:	Gck ^{LCA}
Parental Cell Line:	TL-1
Background Strain:	129
Culturing Protocol:	Std_mESC_Culture.doc
Description:	This ES cell line contains a loxed cassette acceptor (LCA) allele that may be utilized for the exchange of DNAs of interest into the glucokinase locus by recombinase mediated cassette exchange (RMCE). This LCA uses a loxP/inverted loxP strategy for RMCE and allows sequences between - 6 kb and + 5 kb (relative to the hepatic-specific promoter) to be manipulated. This enables a variety of different types of experiments to be performed using a range of cassette designs.

Genetic Alterations**1) Targeted Mutagenesis**

Type of Allele	Cassette Acceptor				
Targeted Gene	glucokinase (Gck - NCBI GeneID:19213)				
Targeted Allele	targeted mutation 4 (gk ^{tm4(LCA)} - MGI:1270854)				
Description of Targeting Vector	<i>Not provided</i>				
Targeting Vector Genbank File	GK.KI.DT.gb				
Citations	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td>15286998</td> <td>Efficient DNA cassette exchange in mouse embryonic stem cells by staggered positive-negative selection. (2004) <i>Genesis</i> 39: 256-62 (Added 2011-03-02 15:30:48.36442)</td> </tr> </tbody> </table>	PubMedID	Citation	15286998	Efficient DNA cassette exchange in mouse embryonic stem cells by staggered positive-negative selection. (2004) <i>Genesis</i> 39 : 256-62 (Added 2011-03-02 15:30:48.36442)
PubMedID	Citation				
15286998	Efficient DNA cassette exchange in mouse embryonic stem cells by staggered positive-negative selection. (2004) <i>Genesis</i> 39 : 256-62 (Added 2011-03-02 15:30:48.36442)				

Associated Images**Image 1****Description:**

Through homologous recombination in ES cells, an 11.1 kb region of the gck gene spanning from ~6 kb upstream of hepatic exon 1 to ~0.4 kb downstream of exon 3 was removed and replaced with a neo/tk selection cassette flanked by inversely oriented loxP sites.

Reference:

Not provided

Repositories**Magnuson Lab**


[Request this resource](#)

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

Contact Information**Preferred Contact**

Name: Mark Magnuson

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](#)

Resource Tags

embryonic, es, esc, Gck^{LCA}, GK, glucokinase, LCA, mESC Core, RMCE, stem, TL-1

[Login to edit tags](#)

[Read more about tags](#)

Resource History & Actions

Approved on Feb 27, 2008
Last modified on Jan 05, 2012

[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.

Institution	Vanderbilt University
Phone	615-322-7006
Email	mark.magnuson@vanderbilt.edu

Associated Publications

No publications associated

Comments

There are no comments for this entry.

