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**Foxa2<sup>LCA</sup> - ES Cell Line RES4547****ESC Line Information**

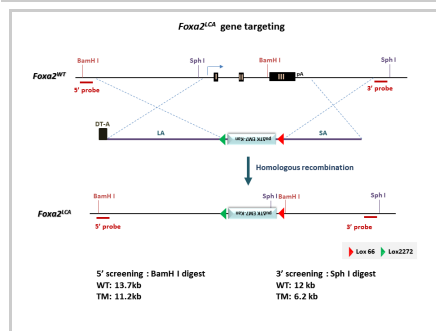
<b>Cell Line Name:</b>	Foxa2 <sup>LCA</sup>
<b>Parental Cell Line:</b>	TL-1
<b>Background Strain:</b>	129
<b>Culturing Protocol:</b>	<a href="#">Std_mESC_Culture.doc</a>
<b>Description:</b>	This ES cell line contains a loxed cassette acceptor (LCA) allele that may be utilized for the exchange of DNAs of interest into the Foxa2 locus by recombinase mediated cassette exchange (RMCE). This LCA uses a Lox66/71 and Lox2272 strategy for RMCE and allows for manipulation of a 4.7 kb region of the gene (contains a promoter and all exons: exon 1, 2 and 3). This leads to a variety of experiments that can be performed using a wide range of cassette designs.

**Genetic Alterations**

<b>1) Targeted Mutagenesis</b>	
<b>Type of Allele</b>	Cassette Acceptor
<b>Targeted Gene</b>	forkhead box A2 (Foxa2 - <a href="#">NCBI GeneID:15376</a> )
<b>Targeted Allele</b>	Forkhead box A2 loxed cassette acceptor (Foxa2 <sup>LCA</sup> )
<b>Description of Targeting Vector</b>	The pFoxa2.LCA targeting vector is made by BAC recombineering and contains 7762bp 5' and a 4009bp 3' homology arms. 5' homology arm is followed by Lox66 site, flrtd (FRT flanked) Pgk-PUDTK-EM7-Neo selection marker and lox2272 site. Pgk-PUDTK marker allows positive selection for targeting events with puromycin and negative selection for RMCE events with ganciclovir. EM7-Kanomycin cassette is used for positive selection in bacterial cells.
<b>Targeting Vector Genbank File</b>	<a href="#">pFoxa2.LCA.gb</a>
<b>Citations</b>	Not Available


**Associated Images**

Image 1


**Description:**

Homologous recombination in mouse ES cells was performed to generate a loxed cassette acceptor allele (LCA). This ES cell line contains an LCA in which a 4.7 kb region (including the promoter and exons 1, 2 and 3) of the gene have been replaced by a lox71 site, a puromycin-(delta)-thymidine kinase fusion gene driven by mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the bacterial EM7 promoter and a lox2272 site. These features enable use of Recombinase Mediated Cassette Exchange

**Access Status**

 This resource is publicly viewable.


**Request this Resource**


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Primary contributor: [Zaret Lab](#)  
Co-contributed by:  
• [BCBC Mouse / ES Cell Core](#)

**Resource Tags**


embryonic, es, esc, Foxa2<sup>LCA</sup>, stem, TL-1

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**Resource History & Actions**

Approved on Nov 29, 2012  
Last modified on Jun 26, 2015

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No matching resources

Data courtesy of [dkCOIN](#). Only public resources are displayed.


(RMCE) for the rapid insertion of various DNAs into the Foxa2 gene locus.

**Reference:**  
*Not provided*

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## Repositories

Magnuson Lab

 Request this resource

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

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## Contact Information

Preferred Contact

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## Associated Publications

*No publications associated*

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## Comments

*There are no comments for this entry.*

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