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**Rosa26<sup>LCA</sup> - ES Cell Line RES262****ESC Line Information**

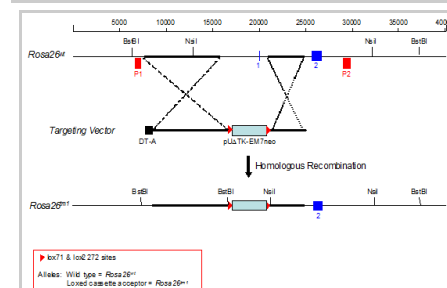
<b>Cell Line Name:</b>	Rosa26 <sup>LCA</sup>
<b>Parental Cell Line:</b>	TL-1
<b>Background Strain:</b>	129
<b>Culturing Protocol:</b>	<a href="#">Std_mESC_Culture.doc</a>
<b>Description:</b>	This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a Lox66 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin resistance gene driven by the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 for the rapid insertion of various DNAs into the Rosa26 gene locus.

**Genetic Alterations****1) Targeted Mutagenesis**

<b>Type of Allele</b>	Cassette Acceptor
<b>Targeted Gene</b>	gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - <a href="#">NCBI GeneID:14910</a> )
<b>Targeted Allele</b>	targeted mutation 1 (Rosa26 <sup>tm1(LCA)</sup> - <a href="#">MGI:104735</a> )
<b>Description of Targeting Vector</b>	The Rosa 26 cassette acceptor allele was created by replacing a 5.165 kb region of this gene containing exon 1 with a floxed tk-neo cassette, a puromycin-delta-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter (pU-deltaTK) and a neomycin resistant gene driven by the bacterial EM7 promoter (EM7neo) flanked by minimal (34 bp) tandemly oriented lox71 and lox2272 sites.
<b>Targeting Vector Genbank File</b>	<a href="#">pRosa26_LCA.gb</a>


**Citations**

PubMedID	Citation
<a href="#">21324933</a>	<a href="#">Quantification of factors influencing fluorescent protein expression using RMCE to generate an allelic series in the ROSA26 locus in mice.</a> (2011) <i>Dis Model Mech</i> 4: 537-47 (Added 2012-09-24 16:36:23.369844)


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

Homologous recombination in ES cells was performed to generate a loxed cassette acceptor allele. This ES cell line contains a loxed cassette acceptor (LCA) allele in which a 5.17 kb region of the gene has been replaced by a lox71 site, a puromycin-(delta)-thymidine kinase fusion gene driven by the mouse phosphoglycerol kinase promoter, a kanamycin

**Access Status**

 This resource is publicly viewable.

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Primary contributor: [Magnuson Lab](#)

Co-contributed by:

- [BCBC Mouse / ES Cell Core](#)

**Resource Tags**

embryonic, es, esc, LCA, mESC Core, RMCE, Rosa, Rosa26, Rosa26<sup>LCA</sup>, stem, TL-1


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**Resource History & Actions**

Approved on Aug 12, 2008

Last modified on Nov 27, 2012

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resistance gene driven by the bacterial EM7 promoter, and a lox2272 site. These features enable use of Recombinase-Mediated Cassette Exchange (RMCE) for the rapid insertion of various DNAs into the the Rosa26 gene locus.

**Reference:**  
21324933

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## Repositories

### Magnuson Lab

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**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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