Rosa26<sup>R26-60-6XNotch-TA-Cerulean</sup> - ES Cell Line RES2802

ESC Line Information

<table>
<thead>
<tr>
<th>Cell Line Name</th>
<th>Rosa26&lt;sup&gt;R26-60-6XNotch-TA-Cerulean&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Cell Line</td>
<td>TL-1 / Rosa26(LCA) clone 5B9</td>
</tr>
<tr>
<td>Background Strain</td>
<td>129</td>
</tr>
<tr>
<td>Culturing Protocol</td>
<td>Std mESC_Culture.doc</td>
</tr>
<tr>
<td>Description</td>
<td>The binding site for Rbpj, the transcriptional mediator of Notch signaling was inserted into the Rosa 26 locus replacing nucleotides -60 to -228. The complete insert contains the Rbpj cis element in a series of six repeats. Each repeat includes a 31 base-pair region derived from the CBF1/Rbpj binding region of the C-promoter of EBV (cataaatTTTTCCCACGgcgttgtttacacc). Uppercase letters are the consensus Rbpj binding sequence within the 31-bp element) (Hsieh et al., MCB 16:952, 1996).</td>
</tr>
</tbody>
</table>

Genetic Alterations

1) RMCE Targeted Mutagenesis

<table>
<thead>
<tr>
<th>Type of Allele</th>
<th>Cassette Acceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted Gene</td>
<td>gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor · NCBI GeneID:14910)</td>
</tr>
<tr>
<td>Targeted Allele</td>
<td>targeted mutation 1 (Rosa26&lt;sup&gt;tm1(LCA)&lt;/sup&gt; · MGI:104735)</td>
</tr>
<tr>
<td>Description of Targeting Vector</td>
<td>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.</td>
</tr>
</tbody>
</table>

Targeting Vector Genbank File: pRosa26.LCA.gb

Recombinase-Mediated Cassette Exchange Stage

<table>
<thead>
<tr>
<th>Type of Allele</th>
<th>Gene Replacement</th>
</tr>
</thead>
</table>

Citations

Not Available

Associated Images

Image 1

Description:
Conceptual nucleotide sequence of the cassette for the RMCE of a synthetic Notch-signal responsive promoter for insertion/replacement into the Rosa26-LCA. This replaces native Rosa26 gene.
sequences from -60 to +81 with the Notch responsive promoter. These ES cells may be useful to monitor Notch signaling.

Light blue: Rosa26-60
Red: 6XNotch
Dark green: Cerulean
Light green: Ampicillin
Blue: Vector
Black: lox

Reference: Not provided

Repositories
Magnuson Lab

Stock #: BCBC2802
Availability Notes: Not provided

Contact Information
Preferred Contact
Name Ray MacDonald
Institution University of Texas Southwestern Medical Center
Phone 214-648-1923
Email raymond.macdonald@utsouthwestern.edu

Associated Publications
No publications associated

Comments
There are no comments for this entry.