**ESC Line Information**

**Cell Line Name:** Rosa26\(^{R26-60-3XCNotch-TA-Cerulean}\) - ES Cell Line RES2742

**Parental Cell Line:** TL-1 / Rosa26(LCA) clone 5B9

**Background Strain:** 129

**Culturing Protocol:** Std_mESC_Culture.doc

**Description:** The Rosa26 gene sequences from -228 to +81 were replaced with a repeat of alternating 32-bp C-elements and 31-bp Rbpj-binding sites (i.e., C-R-C-R-C-R). The 31 base-pair region is derived from the CBF1/Rbpj binding region of the C-promoter of EBV (cataaattTTTTCCCACGgcgtgtttacacc; uppercase letters are the consensus Rbpj binding sequence within the 31-bp element) (Hsieh, MCB 16:952, 1996). The 32-bp C-element is from the Ela1 enhancer (Kruse et al., MCB 15:4385, 1995).

**Genetic Alterations**

1) RMCE Targeted Mutagenesis

- **Type of Allele:** Cassette Acceptor

- **Targeted Gene:** gene trap ROSA 26, Philippe Soriano (Gt(ROSA)26Sor - NCBI GeneID:14910)

- **Targeted Allele:** targeted mutation 1 (Rosa26\(^{tm1(LCA)}\) - MGI:104729)

- **Description of Targeting Vector:** 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.

- **Targeting Vector Genbank File:** pRosa26.LCA.gb

2) Recombinase-Mediated Cassette Exchange Stage

- **Type of Allele:** Gene Replacement

- **Exchanged Cassette Gene:** Not provided. (R26-60 CNotch-TA-Cerulean)

- **Exchanged Cassette Allele Name:** Rosa26(R26-60 CNotch-TA-Cerulean)

- **Description of Exchange Vector:** not available

- **Exchange Vector Genbank File:** 3xcnotchrosa2660.txt

- **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: 3XNotch
- Dark green: Cerulean
- Light green: Ampicillin
- Blue: Vector
- Black: lox

**Reference:**
Not provided

### Repositories

**Magnuson Lab**

- **Stock #:** BCBC2742
- **Availability Notes:** Not provided

### Contact Information

**Preferred Contact**

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### Associated Publications

No publications associated

### Comments

There are no comments for this entry.