Rosa26R26-228-DR5-TA-Cerulean - Mouse Strain RES1281

Mouse Information

Common Name: Rosa26R26-228-DR5-TA-Cerulean
MGI Official Name: Rosa26tm1.2(R26-228-DR5-TA-Cerulean|Mgn)
Description: These mice were generated using RMCE to insert an exchange vector containing a modified Rosa26 promoter linked to a Cerulean fluorescent protein (CFP) reporter gene into mESCs containing a Loxed Cassette Acceptor (LCA) allele within the Rosa26 gene locus. The Rosa26 promoter in this mouse was altered by replacing DNA sequences from -228 to +81 with a multimerized retinoic acid response element (DR5) fused to a TATA box. This mouse will facilitate studies of retinoic acid signaling in an intact animal.

Categories: Fluorescent Probes

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 (Rosa26tm1(LCA) - MGI:104735)
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

Recombinase-Mediated Cassette Exchange Stage

Type of Allele: Not available
Exchanged Cassette Gene: Not provided. (MGI:14910)
Exchanged Cassette Allele Name: Rosa26tm1.2/(R26-228-DR5-Cerulean)
Description of Exchange Vector: Rosa26tm1.2/(R26-228-DR5-TA-Cerulean)

Exchange Vector Genbank File: R26228DR5TACerulean.gb

Citations: Not Available

Strain Information

Strain Type: Mixed
Chimera/Founder Genetic Background: 129S6/SvEvTac
Current Genetic Background: C57BL/6J (date recorded: 03/27/2015)
Strain Description: 129S6 germline chimeras were backcrossed for two generations to C57BL/6J.

Access Status

This resource is publicly viewable.

Request this Resource

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Primary contributor: Magnuson Lab
Co-contributed by: BCBC Mouse / ES Cell Core

Resource Tags

mouse, mouse strain, Rosa26R26-228-DR5- TA-Cerulean

Related resources

No matching resources

Other Consortia

No matching resources

Data courtesy of dkCOIN. Only public resources are displayed.
Description:
A Rosa26 RMCE plasmid constructed, made for use with the Rosa26 acceptor allele, was modified by replacing the sequences from -228 to +81 with a retinoic acid response element (DR5) fused to a TATA-CFP reporter. The resulting mouse ESCs will enable the feasibility of inserting signaling sentinel cassettes into a facilitating chromosomal locus to be directly tested.

Reference:
Not provided

Repositories
Magnuson Lab

Stock #: VUMC, KW BSID 0068
Availability Notes: Not provided

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Associated Publications
Publication Citation

Comments
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