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Rosa26^{R26-228-DR5-TA-Cerulean} - Mouse Strain RES1281**Mouse Information**

Common Name:	Rosa26 ^{R26-228-DR5-TA-Cerulean}
MGI Official Name:	Rosa26 ^{tm1.2(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 (Rosa26 ^{tm1(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	Rosa26 ^{tm1.2((R26-228-DR5-Cerulean)}
Description of Exchange Vector	Rosa26 ^{((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.

Associated Images**Access Status**

 This resource is publicly viewable.

Request this Resource

 Request from a repository


Primary contributor: [Magnuson Lab](#)

Co-contributed by:

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

Resource Tags

mouse, mouse strain, Rosa26^{R26-228-DR5-TA-Cerulean}

 Login to edit tags

 Read more about tags

Resource History & Actions

Approved on Mar 19, 2009

Last modified on Jun 27, 2011

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Related resources**BCBC**

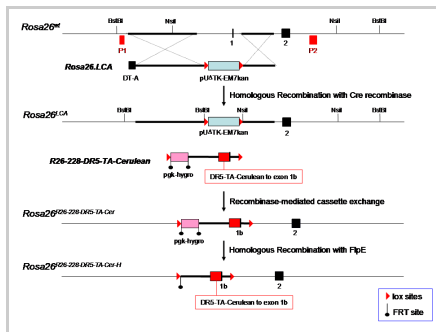
No matching resources

Other Consortia

No matching resources

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

Image 1



Description:

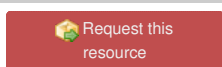
A Rosa26 RMCE plasmid constructed, made for use with the Rosa26 acceptor allele, was modified by replacing the sequences from -228 to +81 with a retinoic acid response element (DR5) fused to a TATA-CFP reporter. The resulting mouse ESCs will enable the feasibility of inserting signaling sentinel cassettes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

Reference:

Not provided

Repositories

Magnuson Lab



Stock #: VUMC, KW BSID 0068

Availability Notes: *Not provided*

Contact Information

Preferred Contact

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Associated Publications

Publication	Citation
22888097	Serup P, Gustavsen C, Klein T, Potter LA, Lin R, Mullanpudi N, Wandzioch E, Hines A, Davis A, Bruun C, Engberg N, Petersen DR, Peterslund JM, Macdonald RJ, Grapin-Botton A, Magnuson MA, Zaret KS <u>Partial promoter substitutions generating transcriptional sentinels of diverse signaling pathways in embryonic stem cells and mice.</u> (2012) <i>Dis Model Mech</i> 5: 956-66 (Added March 21, 2013)

Comments

There are no comments for this entry.

