CD1;129S6-Nepn$^{tm1(Cherry)Mgn}$/Vu

VANDERBILT UNIVERSITY labnodes

This knock-in line expresses a red fluorescent protein (mCherry) under control of the Nepn gene locus. The line is unpublished but is shown to exhibit mCherry expression in kidney (see attached PowerPoint images).

Keywords: Nephrocan | mCherry | RFP | fluorescent reporter | Mgn

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Mouse Information

Common Name	Nepn^{Cherry}
Research Applications	*Not provided*
MMRRC ID	*Not provided*
Jackson Laboratories Stock No	*Not provided*
VCMR ID	QG
Additional Strain Information	*Not provided*

Genetic Alteration

Mutation #1: Targeted Mutagenesis

Type of Allele	Global Null
Targeted Gene	Name: Nephrocan Symbol: Nepn NCBI: 66650
Allele	Name: targeted mutation 1 Symbol: Nepn$^{tm1(Cherry)Mgn}$
Description of Targeting Vector	The targeting vector was made by BAC recombineering. The vector contains a 5' homology arm of 8392 bp and a 3' arm of 3210 bp. The 5' homology arm is followed by an mCherry-rabbit beta globin poly-A sequence and a FRT-flanked PGK-EM7-Neo cassette that is used for positive selection by Neomycin (targeting events). The PGK-EM7-Neo cassette was excised by crossing to a FlpE-expressing mouse.
Vector Genbank File	pbs.dtanepn.cherry.gb
Allele Map	*Not Provided*
PCR Genotyping Protocol	Nepn.Cherry_PCR_genotyping_protocol.docx
Citations	*Not provided*

Background Strain Information

Strain Type	Mixed
Chimera/Founder Genetic Background	129S6/SvEvTac
Current Genetic Background	CD-1
Number of Generations Backcrossed	3
Strain Description	Gene targeting was done in 129S6 mESCs. Upon germline transmission the allele was crossed into a CD1 background. 87.5% CD-1 at cryopreservation. Cryopreserved in 2013. Trial IVF 86.21% fertilization rate.

Attachment

NephCherry_information.pptx - Added on August 8, 2017 at 12:06 PM by Mark Magnuson

Background information on Nephrocan, design of gene targeting vector, and evidence for expression in kidney