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Rictor^{lacZ} - Mouse Strain RES195**Mouse Information**

Common Name:	Rictor ^{lacZ}
MGI Official Name:	Rik ^{tm1.3Mgn}
Description:	Rictor is an essential part of mTOR complex 2 (mTORC2). mTORC2 phosphorylates Ser473 of Akt/PKB. Eliminating this gene disrupts the function of mTORC2, thereby preventing growth factor mediated activation of Akt/PKB. Thus, these mice have utility for studying both the sites of expression and function of rictor.
Categories:	LacZ

Genetic Alterations


1) Targeted Mutagenesis	
Type of Allele	Global Null
Targeted Gene	Rictor (4921505C17Rik - NCBI GeneID:78757)
Targeted Allele	targeted mutation 1.3 (4921505C17Rik ^{tm2Mgn} - MGI:3703325)
Description of Targeting Vector	This knock-in (null) allele was made using a multi-allelic gene targeting strategy that involved the use of both FRT and loxP sites. After germline transmission a neoR cassette and exon 3 (which were flanked by loxP sites) were removed by mating to E11.5-Cre transgenic mice, thereby generating mice containing the ric ^{lacZ} allele. This ric ^{lacZ} allele contains a lacZ-pA region flanked on the 5' side by a single (remnant) FRT site and on the 3' side by a single loxP site. Genotype by DNA PCR utilizing primers 5'-ATT GCA GCT TAT AAT GGT TAC AA-3' and 5'-GAC ACT GGA TTA CAG TGG CTT G-3'. These primers amplify a 295 bp ric ^{lacZ} allele while primers 5'-ACT GAA TAT GTT CAT GGT TGT G-3' and 5'-GAA GTT ATT CAG ATG GCC CAG C-3' amplify a 466 bp ric wild type allele. Homozygous animals exhibit an embryonic lethal phenotype. Embryos exhibit growth arrest after E9.5 and die by E11.5. Heterozygous animals are viable and do not exhibit any obvious mutant phenotype.
Targeting Vector Genbank File	pGEM-Pia-Target.gb

Citations	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td>16962829</td> <td>Multiallelic disruption of the rictor gene in mice reveals that mTOR complex 2 is essential for fetal growth and viability. (2006) <i>Dev Cell</i> 11: 583-9 (Added 2008-03-29 17:02:54)</td> </tr> </tbody> </table>	PubMedID	Citation	16962829	Multiallelic disruption of the rictor gene in mice reveals that mTOR complex 2 is essential for fetal growth and viability. (2006) <i>Dev Cell</i> 11: 583-9 (Added 2008-03-29 17:02:54)
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Strain Information

Strain Type:	Congenic Strain
Chimera/Founder Genetic Background:	129S6/SvEvTac
Current Genetic Background:	C57BL/6J (date recorded: 04/23/2015)
Strain Description:	A multi-allelic gene targeting strategy was used to generate a ric ^{lacZ+neo} allele in mouse embryonic stem cells. After germline transmission both the neoR cassette and exon 3 were removed by mating

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

lacZ, mouse, mouse strain, Rictor, Rictor^{lacZ}

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Resource History & Actions

Approved on Mar 01, 2007
Last modified on Apr 30, 2008

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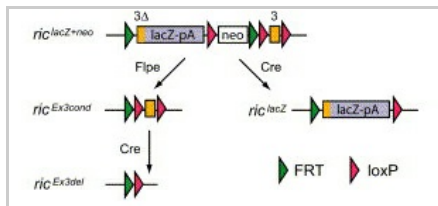
No matching resources

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

to Ella-Cre transgenic mice, thereby generating mice that express the ric^{lacZ} allele. Ric^{lacZ} mice were subsequently backcrossed into a C57BL6/J background. This is a null allele.

Associated Images

Image 1



Description:

Diagram of the recombination-mediated gene conversion strategy and the structure of four different allelic variants of the rictor gene. The parental $ric^{lacZ+neo}$ allele generated by gene targeting contains both a $lacZ$ cassette fused to exon 3 and an intact exon 3.

Reference:

16962829

Repositories

MMRRC

[Request via www.mmrrc.org website](http://www.mmrrc.org)

Stock #: 015200-UCD

Availability Notes: *Not provided*

Magnuson Lab

[Request this resource](#)

Stock #: VUMC - HL

Availability Notes: *Not provided*

Contact Information

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Associated Publications

No publications associated

Comments

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