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**ric<sup>lox</sup> - Mouse Strain RES196****Mouse Information**

<b>Common Name:</b>	ric <sup>lox</sup>
<b>MGI Official Name:</b>	Rik <sup>tm1.1Mgn</sup>
<b>Description:</b>	These mice carry a conditional allele for Rictor, a component mTOR complex 2 (mTORC2). Disruption of the Rictor gene attenuates phosphorylation of Ser473 of Akt/PKB, which is important for a normal response to growth factor stimulation acting through the PI3-kinase signaling pathway.
<b>Categories:</b>	Cre-lox floxed alleles

**Genetic Alterations**

1) Targeted Mutagenesis					
<b>Type of Allele</b>	Conditional Null				
<b>Targeted Gene</b>	Rictor (4921505C17Rik - <a href="#">NCBI GeneID:78757</a> )				
<b>Targeted Allele</b>	targeted mutation 1.1 (4921505C17Rik <sup>tm1.1Mgn</sup> - <a href="#">MGI:3703321</a> )				
<b>Description of Targeting Vector</b>	A conditional allele was generated using a 3 loxP plus 2 FRT site strategy in which 2 FRT sites flank partial exon 3, which is linked to the lacZ reporter plus a neoR cassette. 2 loxP sites flank the neoR cassette and the third loxP flanks exon 3 of the gene. Mice containing the Rik <sup>lacZ+neo</sup> target were subsequently bred to Flpe transgenics. The resulting mice contain intact exon3 flanked by loxP sites plus one remaining FRT site. Genotype by DNA PCR utilizing 5'-ACTGAATATGTTTCATGGTTGTG-3' and 5'-GAAGTTATTCAGATGGCCAGC-3'. These primers amplify a 554 bp targeted allele and a 466 bp wild type allele.				
<b>Targeting Vector Genbank File</b>	<a href="#">pGEM-Pia-Target.gb</a>				
<b>Citations</b>	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td><a href="#">16962829</a></td> <td><a href="#">Multiallelic disruption of the rictor gene in mice reveals that mTOR complex 2 is essential for fetal growth and viability.</a> (2006) <i>Dev Cell</i> 11: 583-9 (Added 2008-03-29 17:02:54)</td> </tr> </tbody> </table>	PubMedID	Citation	<a href="#">16962829</a>	<a href="#">Multiallelic disruption of the rictor gene in mice reveals that mTOR complex 2 is essential for fetal growth and viability.</a> (2006) <i>Dev Cell</i> 11: 583-9 (Added 2008-03-29 17:02:54)
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**Strain Information**


<b>Strain Type:</b>	Insipient congenic
<b>Chimera/Founder Genetic Background:</b>	129S6/SvEvTac
<b>Current Genetic Background:</b>	C57BL/6J (date recorded: 04/23/2015)
<b>Strain Description:</b>	Mice containing the Rik <sup>lacZ+neo</sup> allele were bred to Flpe-expressing transgenic mice. The offspring contain an intact exon 3 flanked by tandem loxP sites and a residual FRT site. This allele is also called ric <sup>lox</sup> or ric <sup>Ex3cond</sup> .

**Associated Images**


Image 1

Description:

**Access Status**

 This resource is publicly viewable.

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Primary contributor: [Magnuson Lab](#)  
Co-contributed by:  

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

**Resource Tags**


mouse, mouse strain, ric<sup>lox</sup>, Rictor

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**Resource History & Actions**

Approved on Mar 01, 2007  
Last modified on Aug 13, 2010

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

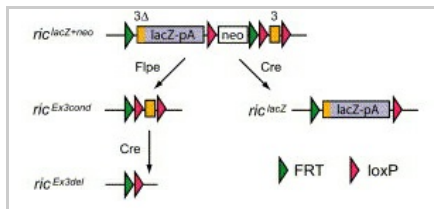


Diagram of the recombinase-mediated gene conversion strategy and the structure of four different allelic variants of the rictor gene. The parental  $rictor^{lacZ+neo}$  allele generated by gene targeting contains both a lacZ cassette fused to exon 3 and an intact exon 3.

**Reference:**  
16962829

## Repositories

### MMRRC

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

**Stock #:** 014113-UNC

**Availability Notes:** *Not provided*

BCBC members may [Login](#) to request this resource.

## Contact Information

### Preferred Contact

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## Associated Publications

Publication	Citation
<a href="#">16962829</a>	Shiota C, Woo JT, Lindner J, Shelton KD, Magnuson MAMultiallelic 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 January 07, 2012)

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