

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.

Keywords: [Rictor](#) [rictor<sup>lox</sup>](#)

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## Mouse Information

Common Name	rictor <sup>lox</sup>
Research Applications	Cre-lox system LacZ
MMRRC ID	014113-UNC
Jackson Laboratories Stock No	Not provided
VCMR ID	Not provided
Additional Strain Information	Not provided

## Genetic Alteration


Mutation #1: Targeted Mutagenesis	
Type of Allele	Conditional Null
Targeted Gene	Name: Rictor Symbol: 4921505C17Rik NCBI: <a href="#">78757</a>
Allele	Name: targeted mutation 1.1 Symbol: 4921505C17Rik <sup>tm1.1Mgn</sup> MGI: <a href="#">MGI:3703321</a>
Description of Targeting Vector	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'-GAAGTTATTCAGATGGCCCAGC-3'. These primers amplify a 554 bp targeted allele and a 466 bp wild type allele.
Vector Genbank File	<a href="#">pGEM-Pia-Target.gb</a>

<b>Allele Map</b>	<i>Not Provided</i>
<b>PCR Genotyping Protocol</b>	<i>Not provided</i>
<b>Citations</b>	<b>Publication</b>
	<p><u><a href="#">Multiallelic disruption of the rictor gene in mice reveals that mTOR complex 2 is essential for fetal growth and viability.</a></u> (2006) <i>Dev Cell</i> <b>11</b>: 583-9 (Added 1/12/2012)  PMID: <a href="#">16962829</a></p>

## Background Strain Information

<b>Strain Type</b>	Insipient congenic
<b>Chimera/Founder Genetic Background</b>	129S6/SvEvTac
<b>Current Genetic Background</b>	C57BL/6J
<b>Number of Generations Backcrossed</b>	5
<b>Strain Description</b>	Mice containing the $Ric^{lacZ+neo}$ 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 $ric^{lox}$ or $ric^{Ex3cond}$ .

## Attachments

 [pia.lox\\_\\_wt\\_pcr\\_protocol.doc](#) - Added on July 27, 2010 at 1:27 PM by Jill Lindner

PCR protocol for genotyping mice

 [Rictor\\_image.jpg](#) - Added on July 19, 2010 at 10:17 AM by Mark Magnuson

Gene targeting strategy

