

Rictor Blocking Peptide
Catalog # PBV10469b**Specification**

Rictor Blocking Peptide - Product Information

Primary Accession	Q6QI06
Other Accession	NP_084444
Gene ID	78757
Calculated MW	191570

Rictor Blocking Peptide - Additional Information**Gene ID** 78757**Application & Usage**

The peptide is used for blocking the antibody activity of Rictor. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

Rapamycin-insensitive companion of mTOR, AVO3 homolog, mAVO3, Protein pianissimo, Rictor {ECO:0000250|UniProtKB:Q6R327}

Target/Specificity

Rictor

Formulation

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Rictor Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

Rictor Blocking Peptide - Protein Information

Name Rictor {ECO:0000303|PubMed:15467718, ECO:0000312|MGI:MGI:1926007}

Function

Component of the mechanistic target of rapamycin complex 2 (mTORC2), which transduces signals from growth factors to pathways involved in proliferation, cytoskeletal organization,

lipogenesis and anabolic output (PubMed:16221682, PubMed:16962653, PubMed:17141160, PubMed:24670654, PubMed:29232555, PubMed:33850054). In response to growth factors, mTORC2 phosphorylates and activates AGC protein kinase family members, including AKT (AKT1, AKT2 and AKT3), PKC (PRKCA, PRKCB and PRKCE) and SGK1 (PubMed:16221682, PubMed:16962653, PubMed:17141160, PubMed:24670654, PubMed:33850054). In contrast to mTORC1, mTORC2 is nutrient-insensitive (By similarity). Within the mTORC2 complex, RICTOR probably acts as a molecular adapter (By similarity). RICTOR is responsible for the FKBP12-rapamycin-insensitivity of mTORC2 (By similarity). mTORC2 plays a critical role in AKT1 activation by mediating phosphorylation of different sites depending on the context, such as 'Thr-450', 'Ser-473', 'Ser-477' or 'Thr-479', facilitating the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1/PDK1 which is a prerequisite for full activation (PubMed:16221682, PubMed:16962653, PubMed:17141160). mTORC2 catalyzes the phosphorylation of SGK1 at 'Ser-422' and of PRKCA on 'Ser-657' (PubMed:33850054). The mTORC2 complex also phosphorylates various proteins involved in insulin signaling, such as FBXW8 and IGF2BP1 (PubMed:23142081, PubMed:23388827). mTORC2 acts upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors (By similarity). mTORC2 promotes the serum-induced formation of stress-fibers or F-actin (By similarity). Plays an essential role in embryonic growth and development (PubMed:16962829).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q6R327}. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q6R327}. Lysosome membrane {ECO:0000250|UniProtKB:Q6R327}. Note=The mTORC2 complex localizes to membranes: mTORC2 is active at the plasma membrane, endoplasmic reticulum membrane and lysosomes. In lysosomal membrane, mTORC2 is sensitive to lysosomal positioning in the cell {ECO:0000250|UniProtKB:Q6R327}

Tissue Location

Highest levels in liver and brain with expression also detected in heart, muscle, spleen and kidney (at protein level)

Rictor Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

Rictor Blocking Peptide - Images