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Goat Anti-RICTOR Antibody
Peptide-affinity purified goat antibody
Catalog # AF1930a

Specification

Goat Anti-RICTOR Antibody - Product Information

Application	**IHC**
Primary Accession	Q6R327
Other Accession	NP_689969, 253260, 78757 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**192218**

Goat Anti-RICTOR Antibody - Additional Information

Gene ID 253260

Other Names
Rapamycin-insensitive companion of mTOR, AVO3 homolog, hAVO3, RICTOR {ECO:0000312|EMBL:EAW55980.1}

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-RICTOR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-RICTOR Antibody - Protein Information

Name RICTOR {ECO:0000303|PubMed:15268862, ECO:0000312|HGNC:HGNC:28611}

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:15268862, PubMed:15718470, PubMed:<a href="http://www.uniprot.org/citations/19720745"

target="_blank">19720745, PubMed:19995915, PubMed:21343617, PubMed:33158864, PubMed:35904232, PubMed:35926713). 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:19720745, PubMed:19935711, PubMed:19995915). In contrast to mTORC1, mTORC2 is nutrient-insensitive (PubMed:15467718, PubMed:21343617). Within the mTORC2 complex, RICTOR probably acts as a molecular adapter (PubMed:21343617, PubMed:33158864, PubMed:35926713). RICTOR is responsible for the FKBP12-rapamycin-insensitivity of mTORC2 (PubMed:33158864). 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 PDPK1/PDK1 which is a prerequisite for full activation (PubMed:15718470, PubMed:19720745, PubMed:19935711, PubMed:35926713). mTORC2 catalyzes the phosphorylation of SGK1 at 'Ser-422' and of PRKCA on 'Ser-657' (By similarity). The mTORC2 complex also phosphorylates various proteins involved in insulin signaling, such as FBXW8 and IGF2BP1 (By similarity). mTORC2 acts upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors (PubMed:15467718). mTORC2 promotes the serum-induced formation of stress-fibers or F-actin (PubMed:15467718).

Cellular Location
Cell membrane. Endoplasmic reticulum membrane. Lysosome membrane. Note=The mTORC2 complex localizes to membranes: mTORC2 is active at the plasma membrane, endoplasmic reticulum membrane and lysosomes (PubMed:21867682). Iin lysosomal membrane, mTORC2 is sensitive to lysosomal positioning in the cell (PubMed:31130364).

Goat Anti-RICTOR Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-RICTOR Antibody - Images

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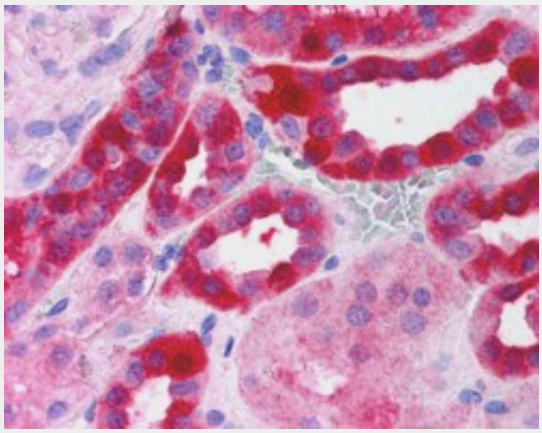

AF1930a (2.5 µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-RICTOR Antibody - Background

RICTOR and MTOR (FRAP1; MIM 601231) are components of a protein complex that integrates nutrient- and growth factor-derived signals to regulate cell growth (Sarbassov et al., 2004 [PubMed 15268862]).

Goat Anti-RICTOR Antibody - References

FoxOs inhibit mTORC1 and activate Akt by inducing the expression of Sestrin3 and Rictor. Chen CC, et al. Dev Cell, 2010 Apr 20. PMID 20412774.
mTORC1-activated S6K1 phosphorylates Rictor on threonine 1135 and regulates mTORC2 signaling. Julien LA, et al. Mol Cell Biol, 2010 Feb. PMID 19995915.
Targeted inhibition of mammalian target of rapamycin signaling inhibits tumorigenesis of colorectal cancer. Gulhati P, et al. Clin Cancer Res, 2009 Dec 1. PMID 19934294.
Involvement of mTORC1 and mTORC2 in regulation of glioblastoma multiforme growth and motility. Gulati N, et al. Int J Oncol, 2009 Oct. PMID 19724909.
Ku-0063794 is a specific inhibitor of the mammalian target of rapamycin (mTOR). Garc□a-Mart□nez JM, et al. Biochem J, 2009 Jun 12. PMID 19402821.