

Product datasheet

Anti-mTOR antibody ab70871

[2 图像](#)**概述**

产品名称	Anti-mTOR抗体
描述	兔多克隆抗体to mTOR
宿主	Rabbit
经测试应用	适用于: IHC-P, WB, ELISA
种属反应性	与反应: Human
免疫原	Synthetic peptide corresponding to amino acid residues surrounding T2446 of human mTOR conjugated to KLH
阳性对照	293 cell lysates transiently transfected with the mTOR gene and human breast carcinoma tissue.

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Preservative: 0.09% Sodium azide Constituent: PBS
纯度	Protein A purified
纯化说明	ab70871 is purified through a protein A column, followed by peptide affinity purification.
克隆	多克隆
同种型	IgG

应用**The Abpromise guarantee****Abpromise™承诺保证使用ab70871于以下的经测试应用**

“应用说明”部分下显示的仅为推荐的起始稀释度；实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		1/10 - 1/50.

应用	Ab评论	说明
WB		1/50 - 1/100. Detects a band of approximately 289 kDa (predicted molecular weight: 289 kDa).
ELISA		1/1000.

靶标

功能

Kinase subunit of both mTORC1 and mTORC2, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. Growth factor-stimulated mTORC1 activation involves AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino-acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eiF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-421', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Phosphorylates MAF1 leading to attenuation of its RNA polymerase III-repressive function. mTORC2 is also activated by growth factors, but seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'.

组织特异性

Expressed in numerous tissues, with highest levels in testis.

序列相似性

Belongs to the PI3/PI4-kinase family.
Contains 1 FAT domain.
Contains 1 FATC domain.
Contains 7 HEAT repeats.
Contains 1 PI3K/PI4K domain.

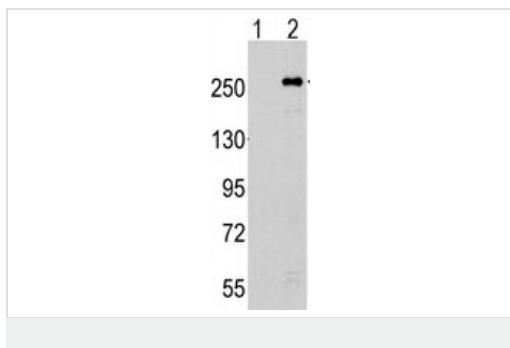
翻译后修饰

Autophosphorylated; when part of mTORC1 or mTORC2.

细胞定位

Endoplasmic reticulum membrane. Golgi apparatus membrane. Mitochondrion outer membrane. Lysosome. Cytoplasm. Nucleus > PML body. Shuttles between cytoplasm and nucleus. Accumulates in the nucleus in response to hypoxia (By similarity). Targeting to lysosomes depends on amino acid availability and RRAGA and RRAGB.

图片



Western blot - Anti-mTOR antibody (ab70871)

All lanes : Anti-mTOR antibody (ab70871) at 1/50 dilution

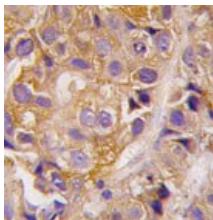
Lane 1 : 293 cell lysates (non transfected)

Lane 2 : 293 cell lysates transiently transfected with the mTOR gene

Lysates/proteins at 2 µg per lane.

Predicted band size: 289 kDa

Observed band size: 289 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-mTOR antibody (ab70871)

ab70871, at 1/10 dilution, staining mTOR in formalin fixed, paraffin embedded human breast carcinoma tissue by Immunohistochemistry. ab70871 was peroxidase conjugated to the secondary antibody, followed by DAB staining.

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