abcam

Product datasheet

Anti-mTOR (phospho S2448) antibody ab84400

10 References   3 图像

概述

产品名称	Anti-mTOR (phospho S2448)**抗体**
描述	**兔多克隆抗体**to mTOR (phospho S2448)
宿主	Rabbit
经测试应用	**适用于：** IHC-P, WB, ICC/IF
种属反应性	**与反应：** Human **预测可用于：** Mouse, Rat, Sheep, Rabbit, Goat, Horse, Cow, Dog, Pig, Zebrafish, Macaque monkey, Gorilla, Chinese hamster ⚠
免疫原	Synthetic peptide conjugated to KLH derived from within residues 2400 - 2500 of Human mTOR, phosphorylated at S2448.**参阅**Abcam**的专有抗源政策**
阳性对照	WB: HeLa, Jurkat and A431 (EGF treated) whole cell lysates. IHC-P: Human normal hippocampus tissue. ICC/IF: methanol fixed MCFM cells.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Note: Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

Our Abpromise guarantee covers the use of **ab84400** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
IHC-P		Use a concentration of 1 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 268 kDa (predicted molecular weight: 288 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

靶标

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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
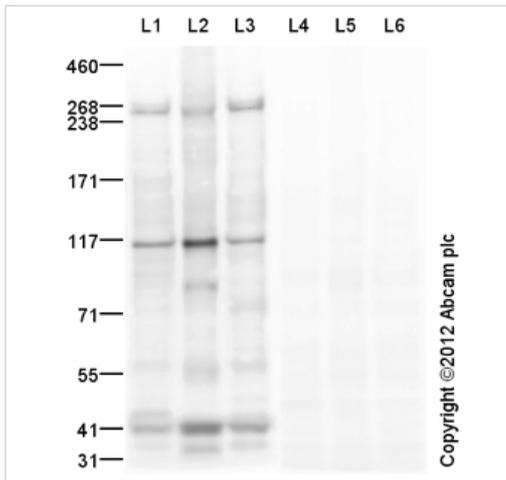
Western blot - Anti-mTOR (phospho S2448) antibody (ab84400)

All lanes : Anti-mTOR (phospho S2448) antibody (ab84400) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : EGF-Stimulated A431 Whole Cell Lysate

Lane 3 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lane 4 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with Immunizing peptide at 1 µg/ml

Lane 5 : EGF-Stimulated A431 Whole Cell Lysate with Immunizing peptide at 1 µg/ml

Lane 6 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate with Immunizing peptide at 1 µg/ml

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

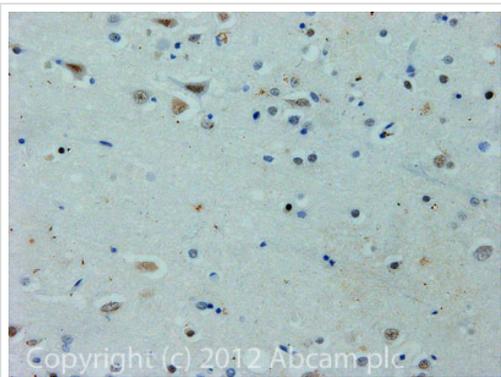Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 288 kDa
Observed band size: 268 kDa
**Additional bands at:** 117 kDa, 41 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 2 minutes

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-mTOR (phospho S2448) antibody (ab84400)

IHC image of mTOR staining in Human hippocampus formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab84400, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.
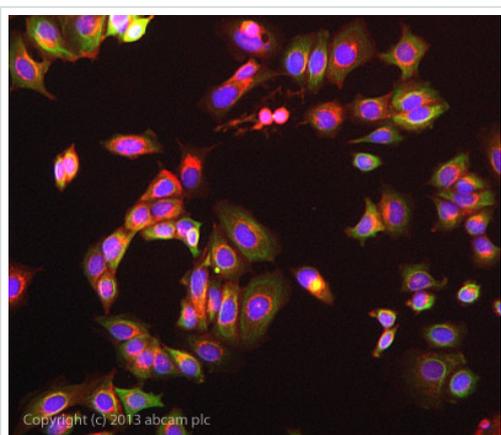
Immunocytochemistry/ Immunofluorescence - Anti-mTOR (phospho S2448) antibody (ab84400)

ICC/IF image of ab84400 stained MCF-7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab84400 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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