

Recombinant Human mTOR protein ab114179

1 图像

描述

产品名称	重组人mTOR蛋白
表达系统	Wheat germ
Accession	<u>P42345</u>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	WGLGQWDSMEEYTCMIPRDTHDGAFYRAVLALHQDLFSLAQQ CIDKARDL LDAELTAMAGESYSRAYGAMV SCHMLSELEEVIQYKLVPERR EIIRQIWW
预测分子量	37 kDa including tags
氨基酸	1521 to 1620

技术指标

Our **Abpromise guarantee** covers the use of **ab114179** in the following tested applications.

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

应用	Western blot SDS-PAGE ELISA
形式	Liquid

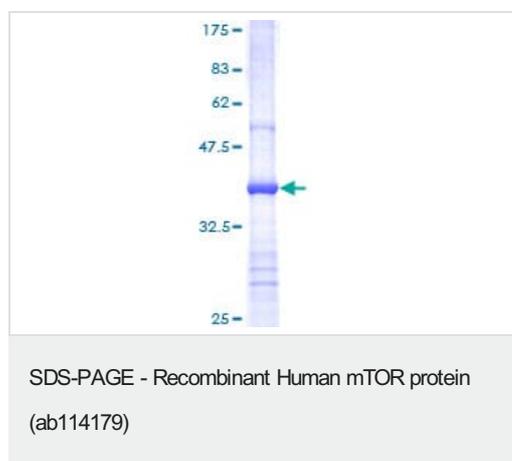
制备和贮存

稳定性和存储	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
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常规信息

功能	<p>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'.</p>
组织特异性	Expressed in numerous tissues, with highest levels in testis.
序列相似性	<p>Belongs to the PI3/P14-kinase family.</p> <p>Contains 1 FAT domain.</p> <p>Contains 1 FATC domain.</p> <p>Contains 7 HEAT repeats.</p> <p>Contains 1 PI3K/PI4K domain.</p>
翻译后修饰	Autophosphorylated; when part of mTORC1 or mTORC2.
细胞定位	<p>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.</p>

图片



ab114179 on a 12.5% SDS-PAGE Stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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