Datasheet for ABIN107657

anti-MTOR antibody (pSer2448)

2 Images | 1 Publication

Go to Product page

Overview

Quantity:	100 µg
Target:	MTOR (mTOR)
Binding Specificity:	AA 2440-2457, pSer2448
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MTOR antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 2440-2457 of human mTOR.
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	MTOR (mTOR)
Alternative Name:	mTOR (mTOR Products)
Background:	Mammalian target of rapamycin (mTOR) is a serine and threonine protein kinase that regulates numerous cellular functions, in particular, the initiation of protein translation. Rapamycin is a

Target Details

	natural product macrolide that induces G_1 growth arrest in yeast, Drosophila, and mammalian cells. mTOR has a long list of synonyms including FK506 binding protein12 - rapamycin associated protein 1, FK506 binding protein12 - rapamycin associated protein 2, FRAP1, FRAP2, RAFT1, RAPT1 and/or FKBP12-rapamycin associated protein (FRAP). mTOR is one of a family of proteins involved in cell cycle progression, DNA recombination, and DNA damage detection. In rat, mTOR is a 245-kD protein referred to as RAFT1 with significant homology to the Saccharomyces cerevisiae protein TOR1 and has been shown to associate with the immunophilin FKBP12 in a rapamycin-dependent fashion. The FKBP12-rapamycin complex is known to inhibit progression through the G_1 cell cycle stage by interfering with mitogenic signaling pathways involved in G_1 progression in several cell types, as well as in yeast. The binding of mTOR to FKBP12-rapamycin correlates with the ability of these ligands to inhibit cell cycle progression. Synonyms: FKBP12 rapamycin complex associated protein antibody, FLJ44809 antibody, FRAP antibody
Gene ID:	2475, 1169735
UniProt:	P42345
Pathways:	PI3K-Akt Signaling, RTK Signaling, AMPK Signaling, Interferon-gamma Pathway, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Regulation of Actin Filament Polymerization, Regulation of Muscle Cell Differentiation, Regulation of Cell Size, Skeletal Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process, Autophagy, CXCR4-mediated Signaling Events, BCR Signaling, Warburg Effect

Application Details

Application Notes:	This affinity purified antibody has been tested for use in immunohistochemistry, ELISA and western blotting. Western blotting shows reactivity specific for phospho mTOR detecting a band at approximately 250 kDa. Reactivity in other immunoassays is unknown.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.88 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

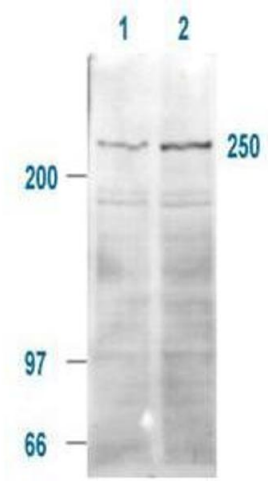
Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Publications

Product cited in:	Ostlund, Worman: "Lamin-associated proteins." in: **Methods in cell biology**, Vol. 78, pp. 829-59, (2005) (PubMed).

Images



Western Blotting

Image 1. Affinity Purified Anti-mTOR pS 2448 (Rabbit) is shown to detect a 250 kDa band (indicated) corresponding to phosphorylated human mTOR present in a 293T whole cell lysates. Cells were serum-starved for 24 hours prior to harvest. ~20 ug of lysate was loaded per lane for SDS-PAGE. Untreated cells are shown in lane 1, whereas cells in lane 2 were treated with IGF-1 (100 ng/ml) for 20 min prior to harvest. Follow reaction of antibody with a 1:2000 dilution of HRP Goat-a-Rabbit IgG for visualization.

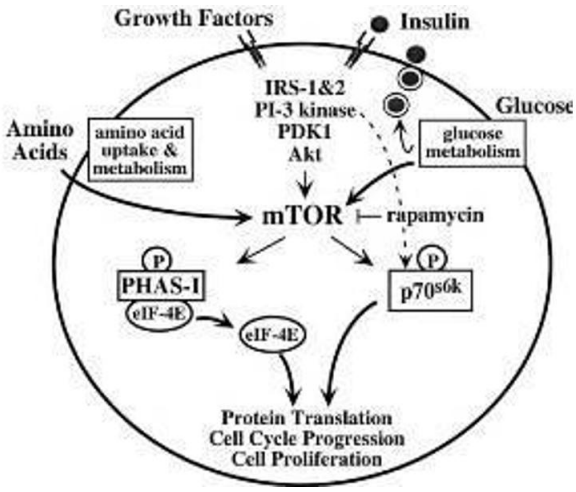


Image 2.