

Datasheet for ABIN107657

anti-MTOR antibody (pSer2448)[Go to Product page](#)**2** Images**1** Publication

Overview

Quantity:	100 µg
Target:	MTOR (mTOR)
Binding Specificity:	pSer2448
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	mTOR phospho S2448 Antibody
Immunogen:	<p>Immunogen: Anti-mTOR pS2448 antibody was prepared from whole rabbit serum produced by repeated immunizations with a phosphorylated synthetic peptide corresponding a c-terminal region near Serine 2448 of human mTOR.</p> <p>Immunogen Type: Conjugated Peptide</p>
Isotype:	IgG
Cross-Reactivity (Details):	Reactivity occurs with phosphorylated mTOR from human derived tissues and cells.
Characteristics:	<p>Synonyms: rabbit anti-mTOR pS2448 antibody, FKBP12 rapamycin complex associated protein antibody, Serine/threonine-protein kinase mTOR, FK506-binding protein 12-rapamycin complex-associated protein 1, Mammalian target of rapamycin, mTOR, Mechanistic target of rapamycin, Rapamycin and FKBP12 target 1, Rapamycin target protein 1, FRAP, FRAP1, FRAP2, RAFT1, RAPT1</p>

Product Details

Purification:	This is an affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase.
Sterility:	Sterile filtered

Target Details

Target:	MTOR (mTOR)
Alternative Name:	MTOR (mTOR Products)
Background:	<p>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 natural product macrolide that induces G₁ 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 G₁ cell cycle stage by interfering with mitogenic signaling pathways involved in G₁ 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.</p>
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:	Immunohistochemistry Dilution: 5.0 µg/mL Application Note: This affinity purified antibody has been tested for use in
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Application Details

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.

Western Blot Dilution: 1:500 - 1:2,000

ELISA Dilution: 1:10,000 - 1:100,000

Other: User Optimized

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1.88 mg/mL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01 % (w/v) Sodium Azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

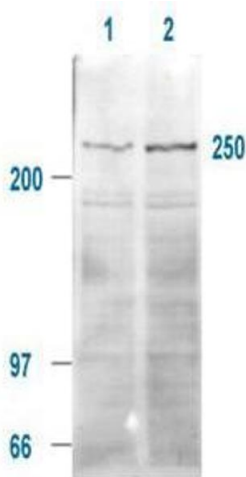
Storage: 4 °C, -20 °C

Storage Comment: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

Product cited in: Savikj, Ruby, Kostovski, Iversen, Zierath, Krook, Widegren: "Retained differentiation capacity of human skeletal muscle satellite cells from spinal cord-injured individuals." in: **Physiological reports**, Vol. 6, Issue 12, pp. e13739, (2018) ([PubMed](#)).



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.

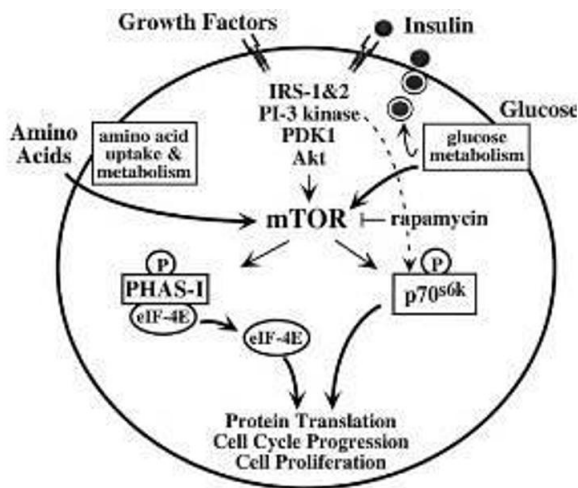


Image 2.