

AbboMax, Inc

Innovation at Work

Order Information

Description: Rabbit anti mTOR
Catalogue#: 600-400
Lot#: See the label
Size: 100 ug/200 ul
Host: Rabbit
Clone: N/A
Application: ELISA, WB, IHC
Reactivity: Hu, Rt, Ms, Bv, Dg, Ck

Rabbit anti mTOR Polyclonal Antibody

Synonym: Mammalian target of rapamycin (mTOR), RAPT1, FKBP12-Rapamycin;

ANTIGEN PREPARATION

A synthetic peptide corresponding to the C-terminus of human mTOR protein. This sequence is identical among human, rat, mouse, chicken, dog and bovine species.

BACKGROUND

The mammalian target of rapamycin (mTOR), also named FKBP12 rapamycin-associated protein (FRAP/RAFT/RAPT/SEP), is a Ser/Thr protein kinase that plays a crucial role in a nutrient-sensitive signalling pathway that regulates cell growth. TOR signalling is potently inhibited by rapamycin, through the direct binding of a FK506-binding protein 12 (FKBP12)/rapamycin complex to the TOR FRB domain, a segment amino terminal to the kinase catalytic domain. mTOR is involved in the regulation of cell growth through initiation of gene translation in response to nutrients such as amino acids (mainly leucine), growth factors, insulin and mitogens. mTOR initiates translation by activating the ribosomal p70S6k protein kinase (S6K1) and by inhibiting the eIF4E inhibitor 4E-BP1. mTOR is phosphorylated at serine 2448 via the phosphatidylinositol 3-kinase (PI3K)/Akt pathway and is autophosphorylated at serine 2481.

PURIFICATION

The Rabbit IgG is purified by Epitope Affinity Purification.

SPECIFICITY

This antibody only recognizes ~290 kDa of human mTOR. It also reacts with mouse and rat mTOR protein. The other species are not tested.

FORMULATION

This affinity purified antibody is supplied in sterile phosphate-buffered saline (pH7.2) containing antibody stabilizer

STORAGE

The antibodies are stable for 12 months from date of receipt when stored at -20°C to -70°C. The antibodies can be stored at 2°C-8°C for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

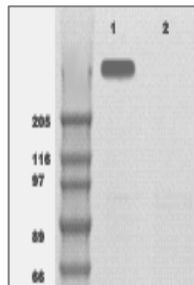
APPLICATIONS/SUGGESTED WORKING DILUTIONS

Western Blot	0.1-1 µg/ml
ELISA	0.01-0.1 µg/ml
Immunoprecipitation	2-5 µg/ml
IHC	Not tested
Flow cytometry	Not tested

MOLECULAR WEIGHT:	290 kDa
POSITIVE CONTROL:	MCF-7
CELLULAR LOCATION:	N/A

Optimal dilutions should be determined by researchers for the specific applications.

DATA ATTACHMENTS



Western Blot: The Cell lysate derived from MCF-7 was immuno-precipitated by Rb anti mTOR (Cat#600-400), resolved onto 7.5% SDS-PAGE, transferred onto NC membrane, then immune-blotted by the same antibody (Rb anti mTOR, Cat#600-400) at 1:500. An immunoreactive band around ~290 kDa was observed (lane 1). Lane 2 is a negative control.

REFERENCES

Noriko Oshiro, et al. Dissociation of raptor from mTOR is a mechanism of rapamycin-induced inhibition of mTOR function (2004), Genes to Cells (2004) 9, 359-366.

FOR RESEARCH USE ONLY.

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