



Rabbit anti mTOR Polyclonal Antibody

Alternative Name(s): Mechanistic target of rapamycin

Order Information

- **Description:** mTOR
- **Catalogue:** 600-400
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Rabbit
- **Clone:** nan
- **Application:** IHC(P), WB
- **Reactivity:** Hu, Ms, Rt

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

FORMULATION

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

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.

STORAGE

The antibodies are stable for 24 months from date of receipt when stored at -20oC to -70oC. The antibodies can be stored at 2oC-8oC 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: 2-10 µg/ml
- Flow cytometry: Not tested
- Molecular Weight: 290.0
- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

FOR RESEARCH USE ONLY.

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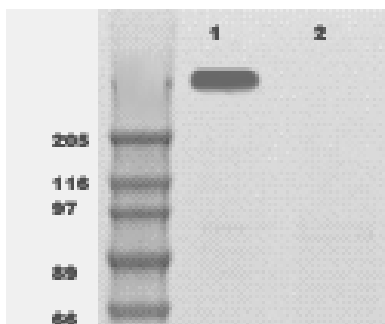
*Optimal dilutions should be determined by researchers for the specific applications.

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DATA ATTACHMENTS



Western Blot: The Cell lysate derived from MCF-7 was immunoblotted by Rabbit 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

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