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Anti-mTOR/MTOR Antibody Picoband™

Catalog Number: A00003-2

About MTOR

The mammalian target of rapamycin (mTOR), also known as the mechanistic target of rapamycin and FK506-binding protein 12-rapamycin-associated protein 1 (FRAP1), is a kinase that in humans is encoded by the MTOR gene. The protein encoded by this gene belongs to a family of phosphatidylinositol kinase-related kinases. These kinases mediate cellular responses to stresses such as DNA damage and nutrient deprivation. This protein acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. The ANGPTL7 gene is located in an intron of this gene.

Overview

Product Name	Anti-mTOR/MTOR Antibody Picoband™
Reactive Species	Human, Monkey
Description	Boster Bio Anti-mTOR/MTOR Antibody Picoband™ catalog # A00003-2. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Monkey.
Application	ELISA, IHC, WB
Clonality	Polyclonal IC-16
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P42345

Technical Details

Immunogen	E.coli-derived human mTOR/MTOR recombinant protein (Position: N2093-N2537).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Direct ELISA, 0.1-0.5ug/ml

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Anti-mTOR/MTOR Antibody Picoband™ (A00003-2) Images

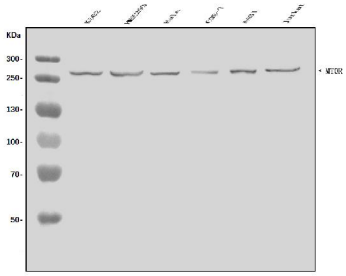

Figure 1. Western blot analysis of MTOR using anti-MTOR antibody (A00003-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.
Lane 1: human K562 whole cell lysates,
Lane 2: human HEK293 whole cell lysates,
Lane 3: human Hela whole cell lysates,
Lane 4: monkey COS-7 whole cell lysates,
Lane 5: human A431 whole cell lysates,
Lane 6: human Jurkat whole cell ltsates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MTOR antigen affinity purified polyclonal antibody (Catalog # A00003-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MTOR at approximately 289KD. The expected band size for MTOR is at 289KD.

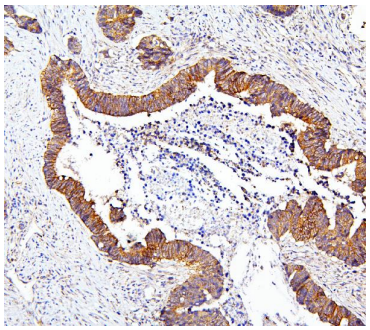

Figure 2. IHC analysis of MTOR using anti-MTOR antibody (A00003-2).
MTOR was detected in paraffin-embedded section of human colon cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MTOR Antibody (A00003-2) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

6 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2017.6437, Expression of TGF-beta1/mTOR signaling pathway in pathological scar fibroblasts

2. PubMed ID: 10.3892/mmr.2021.11938, Hydrogen sulfide ameliorates doxorubicin‐induced myocardial fibrosis in rats via the PI3K/AKT/mTOR pathway

3. PubMed ID: 10.1016/j.envpol.2021.116556, Mechanisms underlying reproductive toxicity induced by nickel nanoparticles identified by comprehensive gene expression analysis in GC-1 spg cells

Visit bosterbio.com/anti-mtor-mtor-picoband-trade-antibody-a00003-2-boster.html to see all 6 publications.

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