

## 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.

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

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

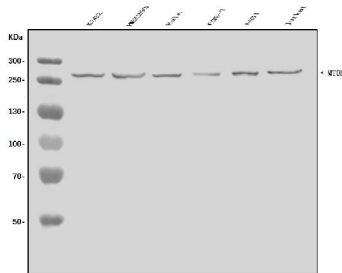


Figure 1. Western blot analysis of MTOR using anti-MTOR antibody (A00003-2).

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 lysates.

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.

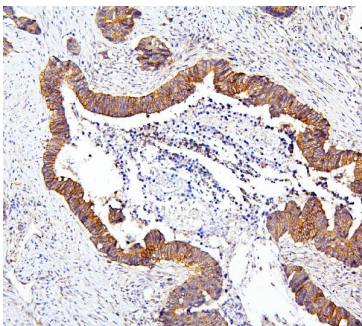


Figure 2. IHC analysis of MTOR using anti-MTOR antibody (A00003-2).

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 Streptavidin-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](https://www.bosterbio.com/anti-mtor-mtor-picoband-trade-antibody-a00003-2-boster.html) to see all 6 publications.

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