

## Anti-PTEN Rabbit Monoclonal Antibody

Catalog Number: M00006-2

### About PTEN

The ion channels activated by glutamate are typically divided into two classes. Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR) while those activated by alpha-amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as AMPA receptors (AMPA). The AMPAR are comprised of four distinct glutamate receptor subunits designated (GluR1-4) and they play key roles in virtually all excitatory neurotransmission in the brain (Keinänen et al., 1990; Hollmann and Heinemann, 1994). The GluR1 subunit is widely expressed throughout the nervous system. Phosphorylation of Ser-845 on GluR1 is thought to be mediated by PKA and phosphorylation of this site increases the conductance of the AMPAR (Roche et al., 1996; Banke et al., 2000). In addition, phosphorylation of this site has been linked to synaptic plasticity as well as learning and memory (Lee et al., 2003; Esteban et al., 2003).

### Overview

Product Name	Anti-PTEN Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PTEN Rabbit Monoclonal Antibody catalog # M00006-2. Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, WB
Clonality	Monoclonal HBH-16
Formulation	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P60484

### Technical Details

Immunogen	A synthesized peptide derived from human PTEN
Isotype	Rabbit IgG
Form	Liquid
Concentration	Actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Affinity-chromatography
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:

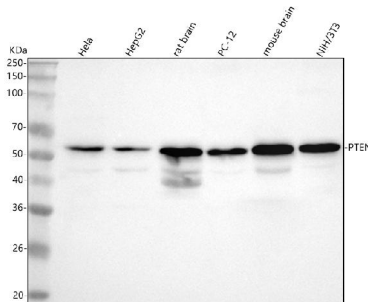
Boster Bio's internal QC testing used:

WB 1:1000-1:2000

IHC 1:50-1:200

ICC/IF 1:50-1:200

## Anti-PTEN Rabbit Monoclonal Antibody (M00006-2) Images

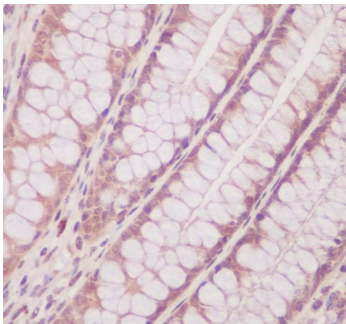


**Figure 1.** Western blot analysis of PTEN using anti-PTEN antibody (M00006-2).

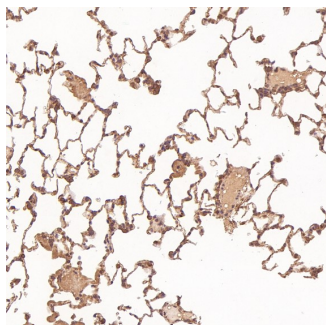
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,  
Lane 2: human HepG2 whole cell lysates,  
Lane 3: rat brain tissue lysates,  
Lane 4: rat PC-12 whole cell lysates,  
Lane 5: mouse brain tissue lysates,  
Lane 6: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-PTEN antigen affinity purified monoclonal antibody (Catalog # M00006-2) at 1:1000 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 1:1000 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 PTEN at approximately 54 kDa. The expected band size for PTEN is at 47 kDa.

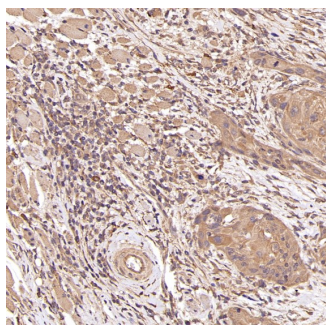
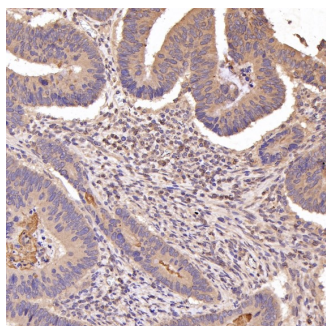


Immunohistochemical analysis of paraffin-embedded human colon, using PTEN Antibody.

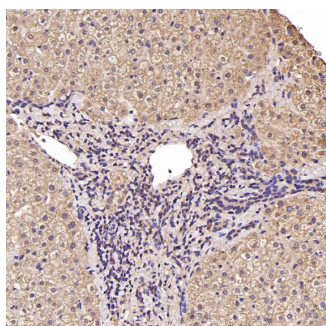


Immunohistochemical analysis of paraffin-embedded Rat lung, using the Antibody at 1:100 dilution.

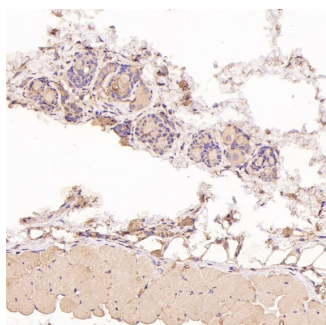
Immunohistochemical analysis of paraffin-embedded Human colon cancer, using the Antibody at 1:100 dilution.



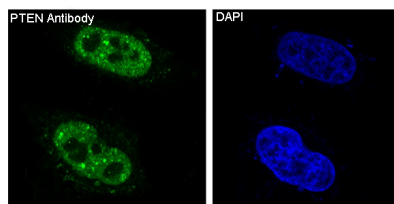
Immunohistochemical analysis of paraffin-embedded Human tongue cancer, using the Antibody at 1:100 dilution.



Immunohistochemical analysis of paraffin-embedded Human liver, using the Antibody at 1:100 dilution.



Immunohistochemical analysis of paraffin-embedded Mouse skin, using the Antibody at 1:100 dilution.



Immunofluorescent analysis of HeLa cells, using PTEN Antibody.

## 12 Publications Citing This Product

1. PubMed ID: 31614022, Sun M, Hu L, S, Huang T, Zhang M, Yang M, Zhen W, Yang D, Lu W, Guan M, Peng S. Circulating MicroRNA-19b Identified

From Osteoporotic Vertebral Compression Fracture Patients Increases Bone Formation. J Bone Miner Res.2020 Feb;35(2):306-316.  
doi:10.1002/jbmr.3892.

2. PubMed ID: 25395712, Li W, Wu D, Wei B, Wang S, Sun H, Li X, Zhang F, Zhang C, Xin Y. Afr J Tradit Complement Altern Med. 2014 Aug 23;11(5):99-104. Ecollection 2014. Anti-Tumor Effect Of Cactus Polysaccharides On Lung Squamous Carcinoma Cells (Sk-Mes-1).

3. PubMed ID: 26448020, 708: Combined Analysis of EGFR and PTEN Status in Patients With KRAS Wild-Type Metastatic Colorectal Cancer

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