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Anti-PTEN Rabbit Monoclonal Antibody

Catalog Number: M00006-1

Overview

Product Name	Anti-PTEN Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PTEN Rabbit Monoclonal Antibody catalog # M00006-1. Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal BEI-16
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:500-2000 IHC 1:50-200 ICC/IF 1:50-200 FC 1:20

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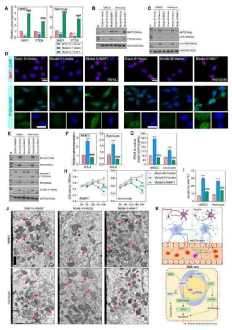
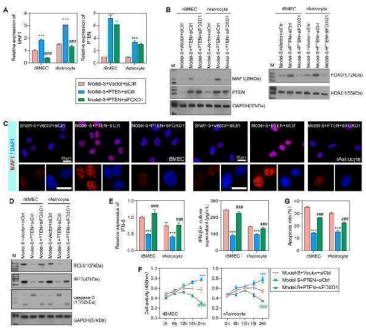
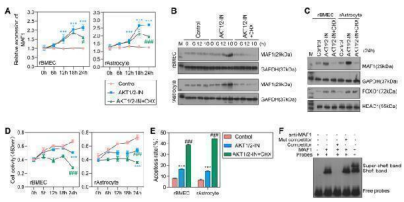
Anti-PTEN Rabbit Monoclonal Antibody (M00006-1) Images



Overexpression of MAF1 promoted PTEN expression, increased cellular activity, decreased cell apoptosis, and normalized autophagy. A , B qPCR and western blot analyses of MAF1 and PTEN expression in the sham-S + vector, model-S + vector, and model-S + MAF1 groups. C Western blot analyses of AKT/mTOR signaling pathway proteins. D MAF1 and PTEM expression was measured by IF. E Western blot analyses of RIG-I and IRF3, the apoptosis-related protein caspase-3, and autophagy-related proteins p62 and LC3B. F , G qPCR and flow cytometry were used to detect IFNbeta expression levels. H CCK-8 analyses for detection of cellular activity in rBMECs and rAstrocytes after transfection for 0, 6, 12, 18, and 24 h. I Flow cytometry was used to detect the apoptosis of transfected cells. J Transmission electron microscopy was used to detect autophagy in rBMECs and rAstrocytes. K Schematic diagram of the mechanism by which MAF1 expression level affects BBB function in SAE. *** P



Interference with FOXO1 inhibited cellular activity and enhanced cell apoptosis. The rBMECs and rAstrocytes were treated with 10% serum harvested from the sham (sham-S) or model rats (model-S). A , B qPCR and western blot analyses of MAF1 , PTEN , and FOXO1 expression in the model-S + vector + siCtrl, model-S + PTEN + siCtrl, and model-S + PTEN + siFOXO1 groups. C MAF1 expression was measured by IF. D Western blot analyses evaluating the protein expression levels of RIG-I and IRF3 and apoptosis-related protein caspase-3. E qPCR and flow cytometry were used to detect IFNbeta expression levels. F CCK-8 analyses for detection of cellular activity in rBMECs and rAstrocytes after transfection for 0, 6, 12, 18, and 24 h. G Flow cytometry was used to detect the apoptosis of transfected cells. *** P



The AKT/mTOR signaling pathway inhibited cellular activity and promoted cell apoptosis. A Levels of MAF1 expression were evaluated in the control, AKT1/2-IN, and AKT1/2-IN + CHX groups. B , C Western blot analyses were performed to assess the levels of MAF1 and FOXO1 protein expression in the control, AKT1/2-IN, and AKT1/2-IN + CHX groups. D , E The levels of cell activity and cell apoptosis in the control, AKT1/2-IN, and AKT1/2-IN + CHX groups. F An EMSA confirming the binding relationship between MAF1 and the PTEN promoter. *** P

Overexpression of PTEN attenuated the RIG-I/IRF3 signal pathway and apoptosis and recovered normal autophagy. The rBMECs and rAstrocytes were treated with 10% serum harvested from the sham (sham-S) or model rats (model-S). A , B qPCR and western blot analyses of MAF1 and PTEN expression in the sham-S + vector, model-S + vector, and

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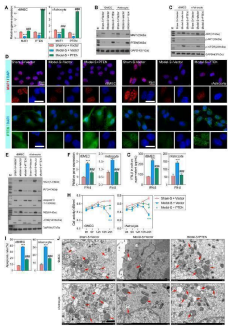
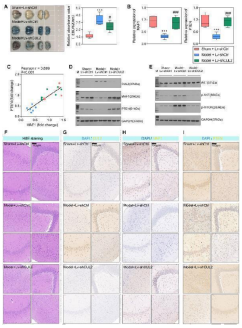
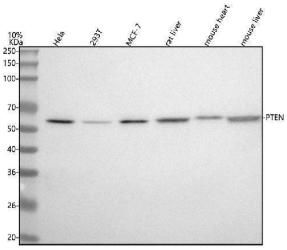


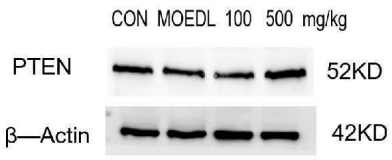
model-S + PTEN groups. C Western blot analyses of AKT/mTOR signaling pathway. D MAF1 and CUL2 expression was measured by IF. E Western blot analyses of proteins RIG-I and IRF3, caspase-3, p62, and LC3B. F , G qPCR and flow cytometry were used to detect IFNbeta expression levels. H CCK-8 analysis of rBMEC and rAstrocyte activity at 0, 6, 12, 18, and 24 h after transfection. I Flow cytometry analysis of apoptosis in transfected cells. J Transmission electron microscopy was used to detect autophagy in rBMECs and rAstrocytes. *** P



Knockdown of CUL2 increased MAF1 and PTEN expression and relieved cellular damage. A EBD extravasation and absorbance at 620 nm in brain tissues from the sham + Lv-shCtrl, model + Lv-shCtrl, and model + Lv-shCUL2 groups. B The levels of MAF1 and PTEN expression were measured by qPCR. C A Pearson correlation analysis was performed on the expression levels of MAF1 and PTEN . D , E Western blot analyses evaluating the levels of CUL2, MAF1, PTEN, AKT, p-AKT, and p-mTOR protein expression. F H&E staining showing the brain tissue morphology. G – I IHC analyses of CUL2, MAF1, and PTEN expression in brain tissues. *** P



Western blot analysis of PTEN using anti-PTEN antibody (M00006-1). 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 293T whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: mouse heart tissue lysates, Lane 6: mouse liver tissue 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 # M00006-1) at 1:500 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 1:500 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.



Western blot analysis of PTEN using anti-PTEN antibody (M00006-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: control group-human mouse hippocampus tissue lysates, Lane 2: model group-human mouse hippocampus tissue lysates, Lane 3:Drug treatment (100mg/kg) – Mouse hippocampus tissue lysates, Lane 4:Drug treatment (500mg/kg) – Mouse hippocampus tissue lysates. After electrophoresis, proteins

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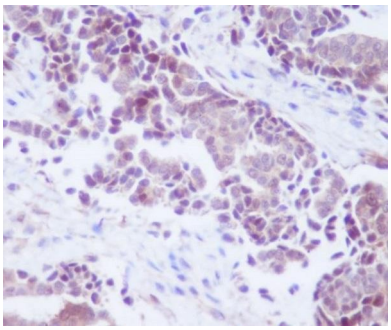
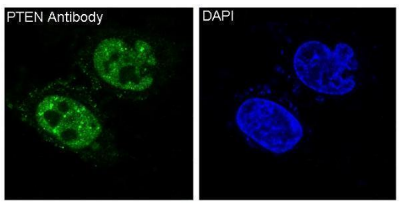
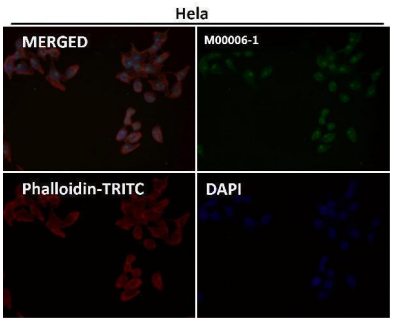
were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1 hour at RT. The membrane was incubated with rabbit anti-PTEN antigen affinity purified monoclonal antibody (A04887-1) overnight at 4°C, then washed with TBS-0.1%Tween 3 times 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with ChemiDoc MP system. A specific band was detected for PTEN at approximately 52 kDa. The expected band size for PTEN is at 54 kDa.



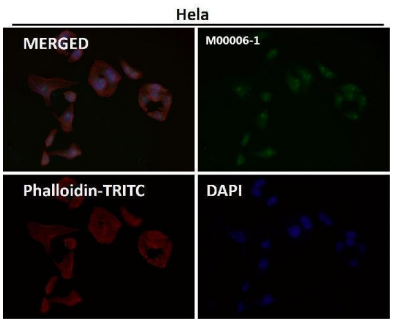
Immunohistochemical analysis of paraffin-embedded human kidney, using PTEN Antibody .



Immunofluorescent analysis of HeLa cells, using PTEN Antibody .



Immunofluorescent analysis using the Antibody at 1:50 dilution.



Immunofluorescent analysis using the Antibody at 1:150 dilution.

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

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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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