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[KO Validated] PTEN Rabbit mAb

Catalog No.: A28510 KO Validated Recombinant

Basic Information

Observed MW
54 kDa

Calculated MW
20 kDa/47 kDa/65 kDa

Category
Primary antibody

Applications
WB,IP,IF/ICC,IHC-P,ELISA

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
ARC77914

Background

This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. The use of a non-canonical (CUG) upstream initiation site produces a longer isoform that initiates translation with a leucine, and is thought to be preferentially associated with the mitochondrial inner membrane. This longer isoform may help regulate energy metabolism in the mitochondria. A pseudogene of this gene is found on chromosome 9. Alternative splicing and the use of multiple translation start codons results in multiple transcript variants encoding different isoforms.

Recommended Dilutions

WB	1:3000 - 1:10000
IP	0.5 μg-4 μg antibody for 200 μg-400 μg extracts of whole cells
IF/ICC	1:100 - 1:200
IHC-P	1:200 - 1:800
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.For high-ratio antibody dilutions (≥1:10000)a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
5728

Swiss Prot
P60484

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
BZS; DEC; CWS1; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; PTENbeta; PTENgama

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

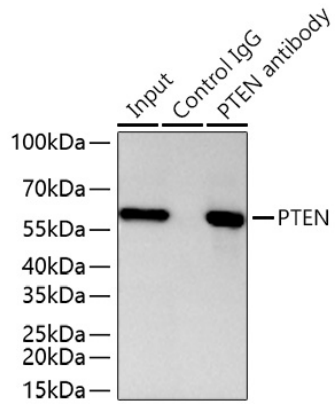
Contact

400-999-6126

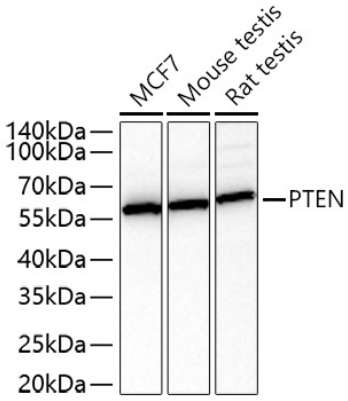
cn.market@abclonal.com.cn

www.abclonal.com.cn

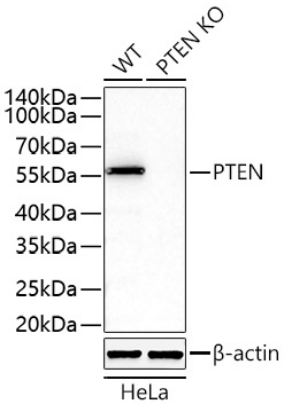
Validation Data



Immunoprecipitation of PTEN from 300 µg extracts of HeLa cells was performed using 0.5 µg of [KO Validated] PTEN Rabbit mAb (A28510). Rabbit Control IgG (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1x Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using [KO Validated] PTEN Rabbit mAb (A28510) at a dilution of 1:5000.

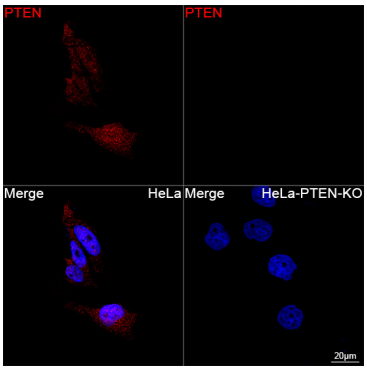


Western blot analysis of various lysates using [KO Validated] PTEN Rabbit mAb (A28510) at 1:5000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 45 s.

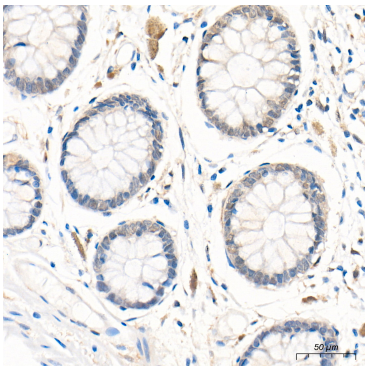


Western blot analysis of lysates from wild type (WT) and PTEN knockout (KO) HeLa cells using [KO Validated] PTEN Rabbit mAb (A28510) at 1:5000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 45 s.

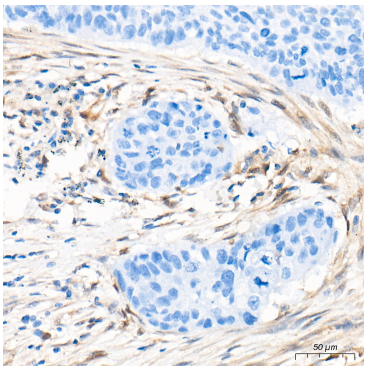
Validation Data



Confocal imaging of HeLa cells and PTEN knockout (KO) HeLa cells using [KO Validated] PTEN Rabbit mAb (A28510, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



Immunohistochemistry analysis of paraffin-embedded Human colon tissue using [KO Validated] PTEN Rabbit mAb (A28510) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human lung cancer tissue using [KO Validated] PTEN Rabbit mAb (A28510) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.