

Anti-PTEN Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

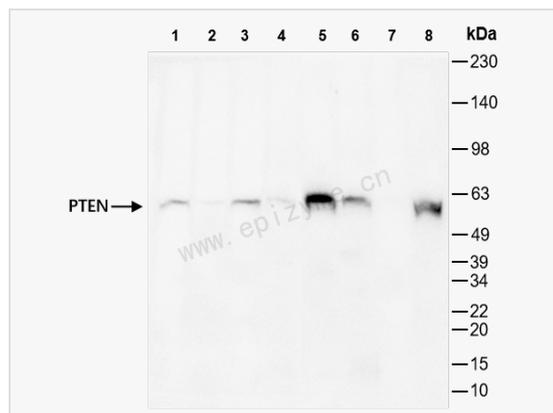
Catalog # R015260

Product Information

Application	WB, IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	44M47I64
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human PTEN
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-PTEN Rabbit mAb [44M47I64] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	10q23del; BZS; DEC; GLM2; MGC11227; MHAM; MMAC1; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog; Phosphatase and tensin like protein; Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Pten; PTEN_HUMAN; PTEN1; TEP1.
Calculated MW	Calculated MW: 47 kDa; Observed MW: 54 kDa
Uniprot ID	P60484
Gene ID	5728
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. [provided by RefSeq, Feb 2015]
Cellular Location	Secreted. May be secreted via a classical signal peptide and reenter into cells with the help of a poly-Arg motif and Cytosolasm.



Western Blot - Anti-PTEN Rabbit mAb [44M47164]

All lanes: R015260 at 1:3,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: 293T (Human embryonic kidney cell) whole cell lysates

Lane 5: Mouse brain whole tissue lysates

Lane 6: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

Lane 7: Rat muscle whole tissue lysates

Lane 8: Rat brain whole tissue lysates

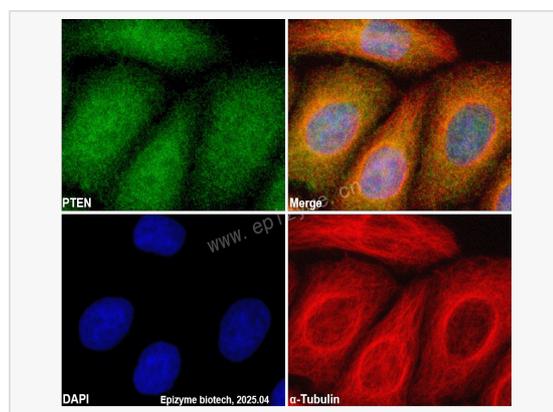
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 47 kDa

Observed band size: 54 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-PTEN Rabbit mAb [44M47164]

Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R015260 at 1:100 dilution and alpha-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).