

Rabbit PTEN Polyclonal Antibody | anti-PTEN antibody

PTEN Antibody (Center S385)

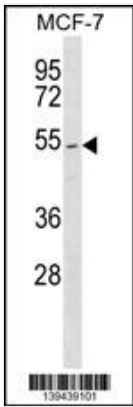
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290676	Rabbit	Human; Predicted Reactivity: Mouse, Xenopus	ELISA, Western Blot

PRODUCT SYNONYMS

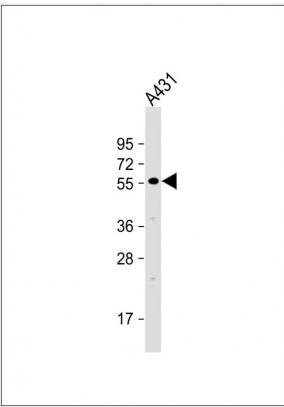
PTEN; Polyclonal Antibody; PTEN Antibody (Center S385); Phosphatidylinositol 3;5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog; MMAC1; TEP1; anti-PTEN antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human; Predicted Reactivity: Mouse, Xenopus
Clonality	Polyclonal
Isotype	Ig
Specificity	This PTEN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 363-392 amino acids from the Central region of human PTEN.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Length	403
Applicable Applications for anti-PTEN antibody	ELISA, WB (Western Blot)
Subtitle	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Cellular Location	Cytoplasm. Nucleus. Nucleus, PML body. Note=Monoubiquitinated form is nuclear. Nonubiquitinated form is cytoplasmic. Colocalized with PML and USP7 in PML nuclear bodies XIAP/BIRC4 promotes its nuclear localization.
Tissue Location	Expressed at a relatively high level in all adult tissues, including heart, brain, placenta, lung, liver, muscle, kidney and pancreas.
Antigen Region	363-392 aa
Antigen Type	Synthetic Peptide
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



WB (Western Blot)
PTEN Antibody (S385) western blot analysis in MCF-7 cell line lysates (35ug/lane). This demonstrates the PTEN antibody detected the PTEN protein (arrow).



WB (Western Blot)
Anti-PTEN-S385 at 1:1000 dilution + A431 whole cell lysate. Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa. Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-PTEN antibody	Description: This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded 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. Background: Tumor suppressor. Acts as a dual-specificity protein phosphatase, dephosphorylating tyrosine-, serine- and threonine- phosphorylated proteins. Also acts as a lipid phosphatase, removing the phosphate in the D3 position of the inositol ring from phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 3,4-diphosphate, phosphatidylinositol 3- phosphate and inositol 1,3,4,5-tetrakisphosphate with order of substrate preference in vitro PtdIns(3,4,5)P3 > PtdIns(3,4)P2 > PtdIns3P > Ins(1,3,4,5)P4. The lipid phosphatase activity is critical for its tumor suppressor function. Antagonizes the PI3K- AKT/PKB signaling pathway by dephosphorylating phosphoinositides and thereby modulating cell cycle progression and cell survival. The unphosphorylated form cooperates with AIP1 to suppress AKT1 activation. Dephosphorylates tyrosine-phosphorylated focal adhesion kinase and inhibits cell migration and integrin-mediated cell spreading and focal adhesion formation. Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue. The nuclear monoubiquitinated form possesses greater apoptotic potential, whereas the cytoplasmic nonubiquitinated form induces less tumor suppressive ability. In motile cells, suppresses the formation of lateral pseudopods and thereby promotes cell polarization and directed movement.
Product Categories/Family for anti-PTEN antibody	Primary Antibodies; Cancer; Cell Biology; Metabolism; Signal Transduction
References	Miletic, A.V., et al. J. Exp. Med. 207 (11):2407-2420 (2010). Kini, V., et al. J. Biol. Chem. 285 (43):33082-33091 (2010). Shimada, M., et al. Hum. Genet. 128 (4):433-441 (2010). Molina, J.R., et al. Cancer Res. 70 (17):6697-6703 (2010). Iliopoulos, D., et al. Mol. Cell 39 (4):493-506 (2010).

NCBI AND UNIPROT INFORMATION

NCBI GI #	73765544
NCBI GeneID	5728
NCBI Accession #	NP_000305.3
NCBI GenBank Nucleotide #	NM_000314.6
UniProt Accession #	P60484; O00633; O02679; Q6ICT7; B2R904; F2YHV0

Molecular Weight	47166 Da
NCBI Official Full Name	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN isoform PTEN
NCBI Official Synonym Full Names	phosphatase and tensin homolog
NCBI Official Symbol	PTEN
NCBI Official Synonym Symbols	BZS; DEC; CWS1; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del
NCBI Protein Information	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN
UniProt Protein Name	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN
UniProt Gene Name	PTEN
UniProt Synonym Gene Names	MMAC1; TEP1
UniProt Entry Name	PTEN_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/pten-antibody-western-blot-elisa/290676>