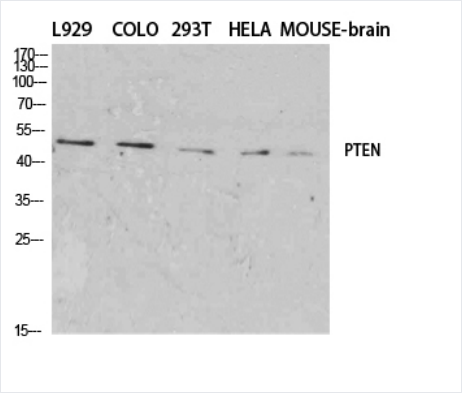
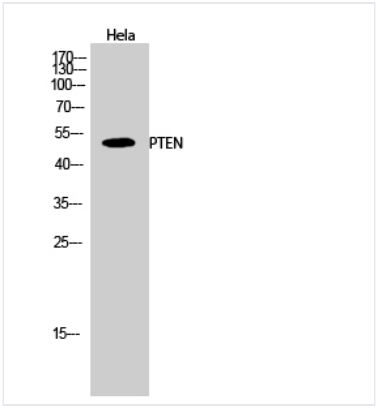
PTEN Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

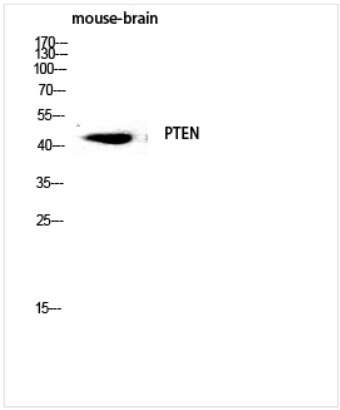
Product Name	PTEN, Polyclonal Antibody
Full Product Name	PTEN Polyclonal Antibody
Product Gene Name	anti-PTEN antibody
Product Synonym Names	PTEN; MMAC1; TEP1; Phosphatidylinositol 3; 4, 5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	47,166 Da
Chromosome Location	Chromosome: 10; NC_000010.10 (89623195..89728532). Location: 10q23.3
OMIM	137800
3D Structure	ModBase 3D Structure for P60484
Applications Tested/Suitable for anti-PTEN antibody	Western Blot (WB), Immunohistochemistry-Paraffin (IHC-P), Immunofluorescence (IF)
Related Product Information for anti-PTEN antibody	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 (PubMed:26504226). 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.
Other Notes	Small volumes of anti-PTEN antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PTEN purchase	MBS9244980 is an antibody targeting PTEN. Also known as PTEN Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Wester Blot (WB) of anti-PTEN antibody
Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300.
Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.



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ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTEN. It may not necessarily be applicable to this product.

NCBI GI #	73765544
NCBI GeneID	5728
NCBI Accession #	NP_000305.3
UniProt Primary Accession #	P60484
UniProt Secondary Accession #	O00633; O02679; Q6ICT7; B2R904
UniProt Related Accession #	P60484
GenBank Nucleotide #	NM_000314.4
NCBI Official Full Name	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase 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
UniProt Protein Name	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN
UniProt Synonym Protein Names	Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog
Protein Family	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase

UniProt Gene Name	PTEN
UniProt Synonym Gene Names	MMAC1; TEP1
UniProt Entry Name	PTEN_HUMAN
NCBI Protein Information	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; phosphatase and tensin-like protein; mutated in multiple advanced cancers 1; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; phosphatidyli
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