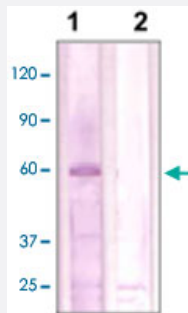


PTEN polyclonal antibody

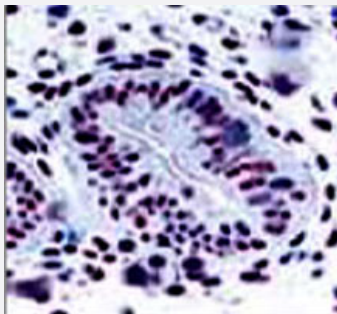
Catalog # PAB12724 Size 100 ug

Applications



Western Blot (Tissue lysate)

The mouse brain tissue lysate resolved onto 10% SDS-PAGE, transferred onto NC membrane, and followed by an immunoblotting with PTEN polyclonal antibody (Cat # PAB12724) (Lane 1) at 1 : 500, or with a pre-incubation of immunizing peptide (Lane 2).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of human prostate tissue stained with PTEN polyclonal antibody (Cat # PAB12724) at 1 : 100 for 10 min at RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of PTEN.
Immunogen	A synthetic peptide corresponding to C-terminus of human PTEN.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Specificity	This antibody recognizes human PTEN protein.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.

Recommend Usage	Western Blot (0.1-1 ug/mL) ELISA (0.01-0.1 ug/mL) Immunoprecipitation (2-5 ug/mL) Immunohistochemistry (1:100) The optimal working dilution should be determined by the end user.
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Storage Buffer	In TBS, pH 7.2 (BSA, 10% Proclin300)
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Storage Instruction	Store at 4°C. For long term storage store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
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- Immunoprecipitation

- Enzyme-linked Immunoabsorbent Assay

Gene Info — PTEN

Entrez GeneID	5728
Gene Name	PTEN
Gene Alias	10q23del, BZS, MGC11227, MHAM, MMAC1, PTEN1, TEP1
Gene Description	phosphatase and tensin homolog
Omim ID	137800 153480 158350 174900 176807 176920 188470 276950 601728 605309 607174
Gene Ontology	Hyperlink

Gene Summary

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. [provided by RefSeq]

Other Designations

MMAC1 phosphatase and tensin homolog deleted on chromosome 10[OTTHUMP00000020032] mutated in multiple advanced cancers 1

Publication Reference

- [Genomic deletion of PTEN is associated with tumor progression and early PSA recurrence in ERG fusion-positive and fusion-negative prostate cancer.](#)

Krohn A, Diedler T, Burkhardt L, Mayer PS, De Silva C, Meyer-Kornblum M, Kötschau D, Tennstedt P, Huang J, Gerhäuser C, Mader M, Kurtz S, Sirma H, Saad F, Steuber T, Graefen M, Plass C, Sauter G, Simon R, Minner S, Schlomm T.

The American Journal of Pathology 2012 Aug; 181(2):401.

Application: IHC, Human, Human prostate cancer

- [Cooperative phosphorylation of the tumor suppressor phosphatase and tensin homologue \(PTEN\) by casein kinases and glycogen synthase kinase 3beta.](#)

Al-Khouri AM, Ma Y, Togo SH, Williams S, Mustelin T.

The Journal of Biological Chemistry 2005 Aug; 280(42):35195.

Pathway

- [Endometrial cancer](#)
- [Focal adhesion](#)
- [Glioma](#)
- [Inositol phosphate metabolism](#)
- [Melanoma](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Phosphatidylinositol signaling system](#)

- [Prostate cancer](#)
- [Small cell lung cancer](#)
- [Tight junction](#)

Disease

- [Abnormalities](#)
- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Astrocytoma](#)
- [Autistic Disorder](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Craniofacial Abnormalities](#)
- [Developmental Disabilities](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Ductus Arteriosus](#)

- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hamartoma Syndrome](#)
- [Hyperplasia](#)
- [Infant](#)
- [Insulin Resistance](#)
- [Learning Disorders](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Mental Retardation](#)
- [Microsatellite Instability](#)
- [Narcolepsy](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)

- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Proteus Syndrome](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Skin Neoplasms](#)
- [Stomach Neoplasms](#)
- [Syndrome](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)