

Product datasheet for **AM10137SU-N**

PTEN Mouse Monoclonal Antibody [Clone ID: 6H2.1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	6H2.1
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on Formalin-Fixed, Paraffin-Embedded Sections: 1/50-1/100 Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. Use Polymer anti Mouse/Rabbit IgG as a detection system. <i>Positive Control:</i> Fetal liver or hepatocellular carcinoma.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	C-terminal 100 amino acids of PTEN
Specificity:	Recognizes PTEN. Cellular Localization: Nuclear.
Formulation:	State: Supernatant State: Liquid purified Ig fraction with 0.2% BSA and 15mM Sodium Azide.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	phosphatase and tensin homolog
Database Link:	Entrez Gene 5395 Human Entrez Gene 5728 Human P60484



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Background:

PTEN (phosphatase and tensin homolog deleted on chromosome ten) is a tumor suppressor gene that is mutated in a wide range of cancers. PTEN is located on chromosome sub-band 10q23.3 and encodes a 403 amino acid protein which acts as a dual-specific protein and phospholipid phosphatase. As a lipid phosphatase, PTEN regulates phosphatidylinositol-3'-kinase by dephosphorylating the D3 position of phosphatidylinositol (3,4,5)-triphosphate and phosphatidylinositol (3,4)-biphosphate substrates, thereby antagonizing signal transduction downstream of phosphatidylinositol-(PI-3) kinase.⁷ Loss-of-function mutations in the PTEN gene lead to constitutive activation of multiple signaling pathways including the PI3K/Akt pathway which affects cell proliferation, apoptosis and migration. PTEN has also been shown to control p53 protein levels and transcriptional activity.

Synonyms:

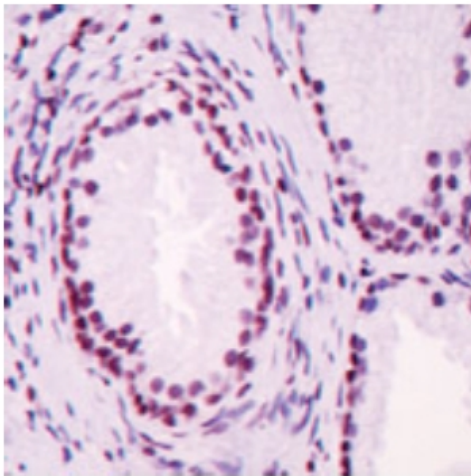
MMAC1, TEP1

Protein Families:

Druggable Genome

Protein Pathways:

Mismatch repair

Product images:

Formalin-Fixed, Paraffin-Embedded Human prostate stained with PTEN antibody Cat.-No. AM10137SU-N using peroxidase conjugate and AEC chromogen. Note nuclear staining of glandular epithelial cell.