

Product datasheet for **TA380490S**

PTEN Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ICC/IF, IHC, WB
Recommended Dilution:	WB, 1:500 - 1:1000 IHC-P, 1:50 - 1:200 IF/ICC, 1:50 - 1:200 ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	47kDa
Gene Name:	phosphatase and tensin homolog
Database Link:	Entrez Gene 5728 Human P60484



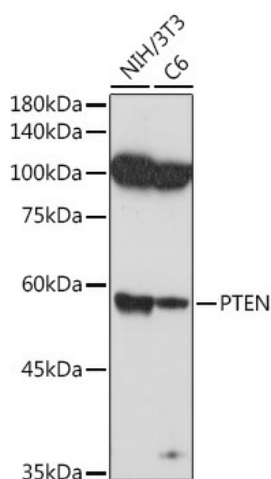
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Background:

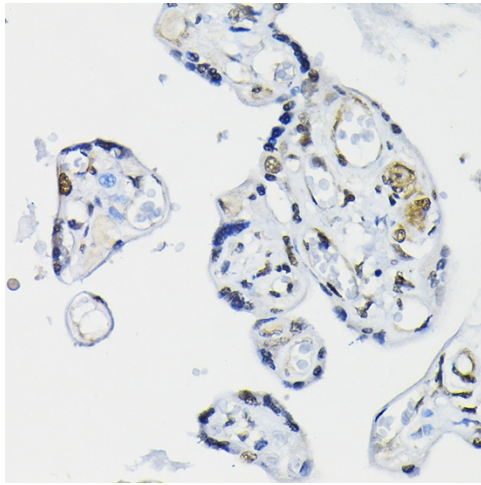
This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity 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.

Synonyms:

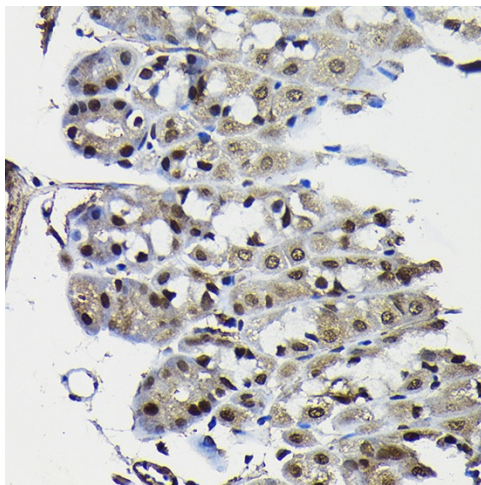
10q23del; BZS; MGC11227; MHAM; MMAC1; PTEN1; TEP1

Product images:


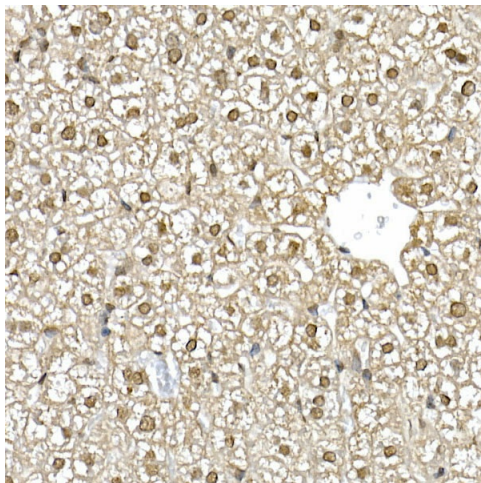
Western blot analysis of various lysates using PTEN Rabbit pAb ([TA380490]) at 1:1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 90s.



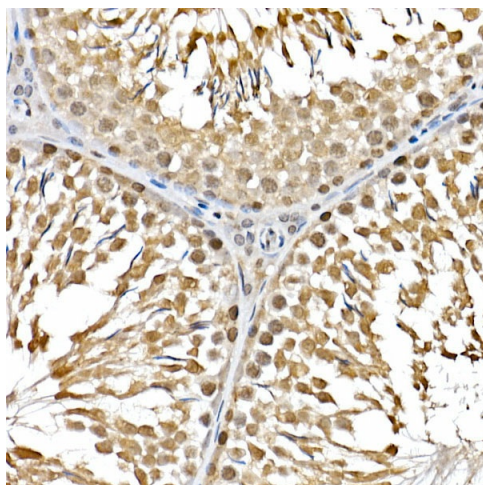
Immunohistochemistry analysis of paraffin-embedded Human breast cancer using PTEN Rabbit pAb ([TA380490]) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



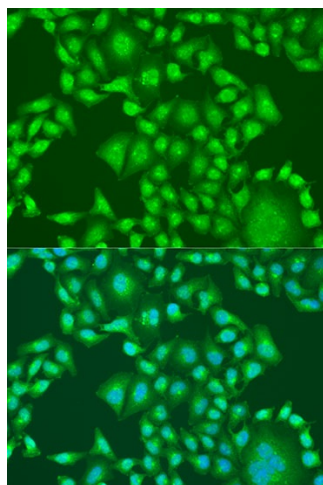
Immunohistochemistry analysis of paraffin-embedded Human placenta using PTEN Rabbit pAb ([TA380490]) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse liver using PTEN Rabbit pAb ([TA380490]) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat testis using PTEN Rabbit pAb ([TA380490]) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



Immunofluorescence analysis of U2OS cells using PTEN Rabbit pAb ([TA380490]) at dilution of 1:100. Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.