

Product datasheet for **TA380493**

PTEN Rabbit Polyclonal Antibody

Product data:

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|-------------------------|---|
| Product Type: | Primary Antibodies |
| Applications: | WB |
| Recommended Dilution: | WB,1:500 - 1:2000 |
| Reactivity: | Human, Mouse, Rat |
| Modifications: | Phospho S380 |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | A phospho specific peptide corresponding to residues surrounding S380 of human PTEN |
| Formulation: | Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3. |
| 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 |



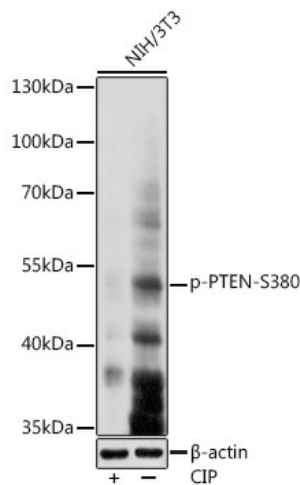
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Background:

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 extracts of NIH/3T3 cells, using Phospho-PTEN-S380 antibody (TA380493) at 1:1000 dilution. NIH/3T3 cells were treated by CIP (20uL/400ul) at 37°C for 1 hour. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit. | Exposure time: 1s.