

Product datasheet for **TA420075**

Phospho-PTEN Rabbit Polyclonal Antibody

Product data:

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|-------------------------|-----------------------------------------------------------------------------------------------------------|
| Product Type: | Primary Antibodies |
| Applications: | IHC, WB |
| Recommended Dilution: | WB,1:1000 - 1:5000 IHC-P,1:50 - 1:200 |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | A synthetic phosphorylated peptide around S380 & T383 of human Phospho-PTEN-S380/T382/T383 (NP_000305.3). |
| Formulation: | Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3. |
| Concentration: | lot specific |
| Purification: | Affinity purification |
| Conjugation: | Unconjugated |
| Storage: | Store at -20°C. Avoid freeze / thaw cycles. |
| Stability: | Stable for 12 months from date of receipt. |
| Predicted Protein Size: | 47kDa - Observed MW: 54kDa |
| 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; CWS1; DEC; GLM2; MHAM; MMAC1; PTEN1; PTENbeta; TEP1