



PTEN Polyclonal Antibody

Cat #: ABP0181

Size: 100µl

Product Information

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| | Product Name: PTEN Polyclonal Antibody | | |
| | Applications: WB, IF, IHC-P, ELISA | | Isotype: Rabbit IgG |
| | Reactivity: Human, Mouse, Rat | | |
| REF | Catalog Number: ABP0181 | LOT | Lot Number: Refer to product label |
| | Formulation: Liquid | | Concentration: 1 mg/ml |
|  | Storage: Store at -20°C. Avoid repeated freeze / thaw cycles. |  | Note: Contain sodium azide. |

Background: PTEN (phosphatase and tensin homolog) was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by PTEN 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 PTEN is found on chromosome 9. Alternative splicing and the use of multiple translation start codons results in multiple transcript variants encoding different isoforms.

Application Notes: Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), IF (1:50-1:200), IHC-P (1:100-1:300), ELISA (1:10000-1:20000).

Storage Buffer: PBS, pH 7.4, containing 0.02% Sodium Azide as preservative and 50% Glycerol.

Storage Instructions: Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

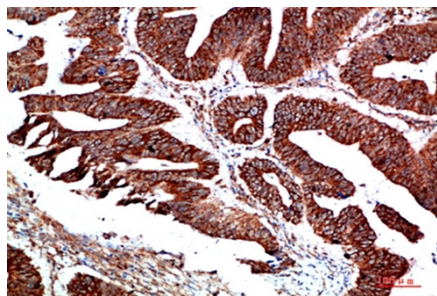


Fig.1. Immunohistochemical analysis of paraffin-embedded human colon cancer, antibody was diluted at 1:200.

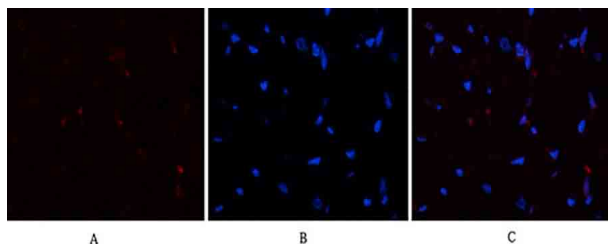


Fig.2. Immunofluorescence analysis of human-heart tissue. 1, PTEN Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 Labeled secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B.

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