

PTEN Polyclonal Antibody

Catalog No. E-AB-93033

Note: Centrifuge before opening to ensure complete recovery of vial contents.

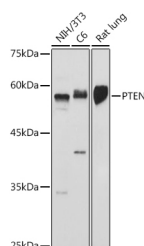
Description

Reactivity	Human,Mouse,Rat
Immunogen	Recombinant fusion protein of human PTEN
Host	Rabbit
Isotype	IgG
Purification	Affinity purification
Conjugation	Unconjugated
Buffer	PBS with 0.05% proclin300,50% glycerol,pH7.3.

Applications Recommended Dilution

WB	1:500-1:2000
IHC	1:50-1:200
IF	1:50-1:200

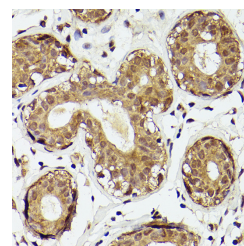
Data



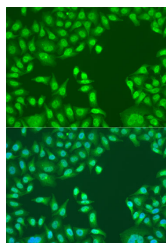
Western blot analysis of extracts of various cell lines using PTEN Polyclonal Antibody at 1:500 dilution.

Observed Mw:54KDa

Calculated Mw:19kDa/47kDa/64kDa



Immunohistochemistry of paraffin-embedded human breast cancer using PTEN Polyclonal Antibody at dilution of 1:50 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



Immunofluorescence analysis of U2OS cells using PTEN Polyclonal Antibody at dilution of 1:100.
Blue: DAPI for nuclear staining.

For Research Use Only

Preparation & Storage

Storage Store at -20°C. Avoid freeze/thaw cycles.

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.

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