

Phospho PTEN (Ser370) Antibody

rev 12/19

CATALOG NO.: A1952-100 (100 µl)

BACKGROUND DESCRIPTION: 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.

ALTERNATE NAMES: MMAC1; TEP1; Phosphatidylinositol 3;4;5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog

ANTIBODY TYPE: Polyclonal

HOST/ISOTYPE: Rabbit / IgG

IMMUNOGEN: KLH-conjugated synthetic peptide targeting a sequence within the C-term region of human PTEN

MOLECULAR WEIGHT: 55 kDa

PURIFICATION: Affinity purified

FORM: Liquid

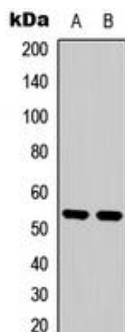
FORMULATION: In 0.42% Potassium phosphate; 0.87% NaCl; pH 7.3; 30% glycerol; and 0.01% sodium azide

SPECIES REACTIVITY: Human, Mouse, Dog, Monkey, Porcine, Bovine, Zebrafish

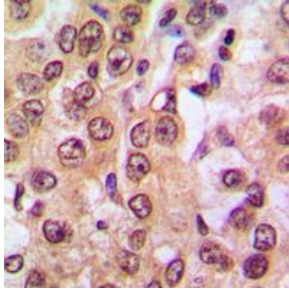
STORAGE CONDITIONS: Store at -20°C. Avoid freeze / thaw cycles

APPLICATIONS AND USAGE: WB 1:500 - 1:1000, IHC 1:100 - 1:200

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user



Western blot analysis of phospho PTEN (Ser370) expression in HeLa Calyculin A-treated (A); MCF7 whole cell lysates (B).



Immunohistochemical analysis of phospho PTEN (Ser370) staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugate compact polymer system. DAB was used as the chromogen. The section was then counterstained with hematoxylin and mounted with DPX.

RELATED PRODUCTS:

Anti-PTEN Rabbit Monoclonal Antibody (A1607)
Phospho-GSK3 (Tyr216) Antibody (A1037)
Phospho-EGFR (Tyr1197) Antibody (A1034)
Phospho-AKT1 (Ser473) Antibody (A1041)

FOR RESEARCH USE ONLY! Not to be used on humans.