

## PTEN Polyclonal Antibody

### Description

<b>Product type</b>	Primary Antibody
<b>Code</b>	BT-AP07473
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Size</b>	20ul, 50ul, 100ul
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human PTEN. AA range:370-400
<b>Mol wt</b>	47166
<b>Species reactivity</b>	Human, Mouse, Rat
<b>Clonality</b>	Polyclonal
<b>Recommended application</b>	WB, IHC-p, ELISA
<b>Concentration</b>	1 mg/ml
<b>Full name</b>	PTEN Antibody
<b>Synonyms</b>	PTEN; 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

**This product is for research use only, not for use in human, therapeutic or diagnostic procedure.**

### Background

PTEN was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. Phosphatase and tensin homolog 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, PTEN phosphatase and tensin homolog 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.

### Recommended Dilution

WB: 1: 500 - 1: 2000

IHC: 1: 100 - 1: 300

ELISA: 1: 20000

Not yet tested in other applications.

### Images

No images.

### Storage

-20°C for one year