

## PTEN Polyclonal Antibody

### Description

<b>Product type</b>	Primary Antibody
<b>Code</b>	BT-AP07470
<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:355-385
<b>Mol wt</b>	47166
<b>Species reactivity</b>	Human, Mouse, Rat, Monkey
<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. Pphosphatase 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, t 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

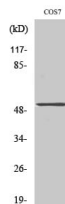
WB: 1: 500 - 1: 2000

IHC: 1: 100 - 1: 300

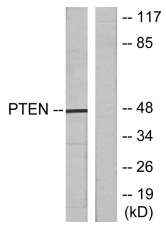
ELISA: 1: 10000

Not yet tested in other applications.

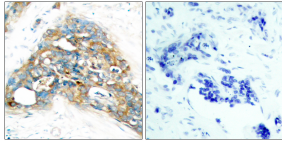
### Images



Western Blot analysis of various cells using PTEN Polyclonal Antibody



Western blot analysis of PTEN (Ab-370) Antibody. The lane on the right is blocked with the PTEN (Ab-370) peptide.



Immunohistochemistry analysis of paraffin-embedded human breast cancer, using PTEN (Ab-370) Antibody. The picture on the right is blocked with the PTEN (Ab-370) peptide.

### Storage

-20°C for one year

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