

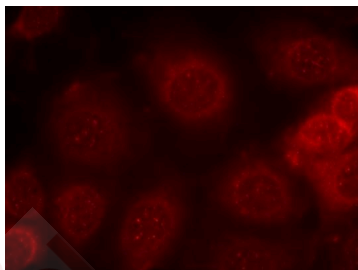
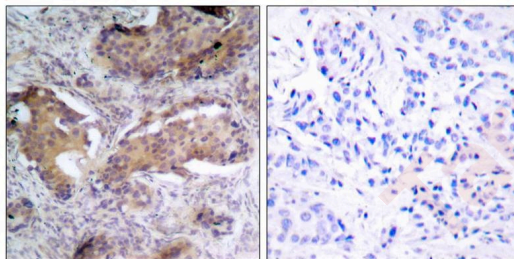
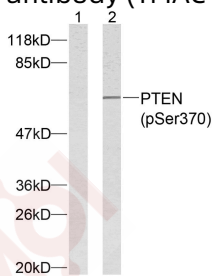
## Anti-Phospho-PTEN (Ser370) Polyclonal Antibody

### Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.

### Applications

- Verified Activity:
1. Western blot analysis of extracts from HeLa cells using PTEN (phospho-Ser370) antibody (TMAC-03461).
  2. Immunohistochemical analysis of paraffin- embedded human breast carcinoma tissue using PTEN (phospho-Ser370) antibody (TMAC-03461).
  3. Immunofluorescence staining of methanol-fixed MCF7 cells using PTEN (phospho-Ser370) antibody (TMAC-03461, Red).



Application: IF,IHC,WB

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

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### Antigen Details

Immunogen: Peptide sequence around phosphorylation site of serine 370(D-V-S(p)-D-N) derived from Human PTEN

Antigen Species: Human

Uniprot ID: P60484

Synonyms: PTEN (p-S370);p-PTEN (Ser370);PTEN (p-Ser370);PTEN1;GLM2;MMAC1 phosphatase and tensin homolog deleted on chromosome 10;MHAM;DEC;MMAC1;Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN;Phospho-PTEN (S370);Phosphatase and tensin homolog;BZS;p-PTEN (S370);TEP1;Mutated in multiple advanced cancers 1;MGC11227;10q23del;Phosphatase and tensin like protein

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### Research Background

Tumor suppressor. Acts as a dual-specificity protein phosphatase, dephosphorylating tyrosine-, serine- and threonine-phosphorylated proteins. Also acts as a lipid phosphatase, removing the phosphate in the D3 position of the inositol ring from phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 3,4-diphosphate, phosphatidylinositol 3-phosphate and inositol 1,3,4,5-tetrakisphosphate with order of substrate preference in vitro PtdIns(3,4,5)P3 > PtdIns(3,4)P2 > PtdIns3P > Ins(1,3,4,5)P4. The lipid phosphatase activity is critical for its tumor suppressor function. Antagonizes the PI3K-AKT/PKB signaling pathway by dephosphorylating phosphoinositides and thereby modulating cell cycle progression and cell survival. The unphosphorylated form cooperates with AIP1 to suppress AKT1 activation. Dephosphorylates tyrosine-phosphorylated focal adhesion kinase and inhibits cell migration and integrin-mediated cell spreading and focal adhesion formation. Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue. The nuclear monoubiquitinated form possesses greater apoptotic potential, whereas the cytoplasmic nonubiquitinated form induces less tumor suppressive ability.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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