

## 35-1411: Polyclonal Antibody to PTEN (Ab-370)

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	WB,IHC
<b>Reactivity :</b>	Human,Mouse,Rat
<b>Gene :</b>	PTEN
<b>Gene ID :</b>	5728
<b>Uniprot ID :</b>	P60484
<b>Format :</b>	Purified
<b>Alternative Name :</b>	MMAC1, Mutated in multiple advanced cancers 1, Protein-tyrosine phosphatase PTEN, TEP1
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around aa.368~372 (D-V-S-D-N) derived from Human PTEN.

### Description

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  $\text{PtdIns}(3,4,5)\text{P}_3 > \text{PtdIns}(3,4)\text{P}_2 > \text{PtdIns}3\text{P} > \text{Ins}(1,3,4,5)\text{P}_4$ . 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. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue.

### Product Info

<b>Amount :</b>	50 $\mu\text{l}$ / 100 $\mu\text{l}$
<b>Content :</b>	Supplied at 1.0mg/mL in phosphate buffered saline (without $\text{Mg}^{2+}$ and $\text{Ca}^{2+}$ ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Storage condition :</b>	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

Predicted MW: 54kd, Western blotting: 1:500~1:1000, Immunohistochemistry: 1:50~1:100

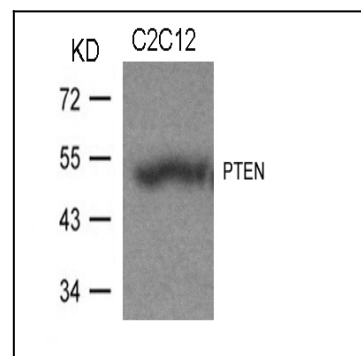


Figure 1: Western blot analysis of extracts from C2C12 cells using PTEN(Ab-370) Antibody 35-1411 .

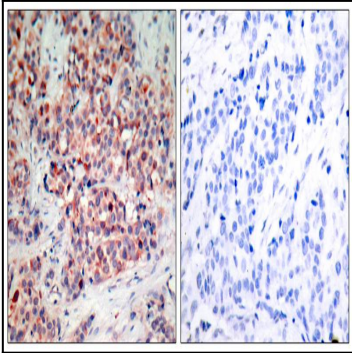


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using PTEN(Ab-370) Antibody 35-1411 (left) or the same antibody preincubated with blocking peptide(right).