

**Anti-Human/Mouse/Rat Phospho-PTEN (Ser370) Polyclonal Antibody****Polyclonal Antibody****Cat.NO.: PA01624**

3th Edition

**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. 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.

**Antigen:** Synthesized peptide derived from human PTEN around the phosphorylation site of Ser370

**Form:**

**How to use:** 1.0 ml distilled water will be added to the product

**Stability:** Lyophilized product, 5 years at 2 – 8°C; Solution, 2 years at –20°C

**Dilution:** PBS (pH7.4) containing 1% BSA

**Application:** This antibody can be used for western blotting in concentration of 1?5?g/ml.

**Specificity:** Expressed at a relatively high level in all adult tissues, including heart, brain, placenta, lung, liver, muscle, kidney and pancreas.