

Anti-Human/Mouse/Rat Acetyl-PTEN (Lys402) Polyclonal Antibody

Polyclonal Antibody

Cat.NO.: PA01439

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 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.

Antigen: Synthesized peptide derived from the human PTEN around the acetylation site of K402.

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.