

Anti-Phospho-PTEN (Ser380) Antibody (6H501)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	6H501
Purification:	Affinity-chromatography

Applications

Western Blot	-Positive WB detected in HepG2 whole cell lysate
Verified Activity:	-All lanes Phospho-PTEN antibody at 1.9µg/ml
	-Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution
	-Predicted band size: 54 KDa
	-Observed band size: 54 KDa
Application:	ELISA,WB
Recommended	WB:1:500-1:5000.

Properties

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

Antigen Details

Immunogen:	A synthetic peptide: Human Phospho-PTEN (S380)
Antigen Species:	Human
Gene ID:	5728
Uniprot ID:	P60484
Synonyms:	MMAC1 phosphatase and tensin homolog deleted on chromosome 10;MGC11227;Phosphatase and tensin homolog;p-PTEN (Ser380);DEC;PTEN (p-S380);MMAC1;MHAM;Mutated in multiple advanced cancers 1;TEP1;GLM2;10q23del;PTEN1;BZS;Phosphatase and tensin like protein; Phospho-PTEN (S380);Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN;PTEN (p-Ser380);p-PTEN (S380)
Biology Area:	Cell Biology

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

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and thereby modulating cell cycle progression and cell survival. The unphosphorylated form cooperates with MAGI2 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. In motile cells, suppresses the formation of lateral pseudopods and thereby promotes cell polarization and directed movement. Functional kinase, like isoform 1 it antagonizes the PI3K-AKT/PKB signaling pathway. Plays a role in mitochondrial energetic metabolism by promoting COX activity and ATP production, via collaboration with isoform 1 in increasing protein levels of PINK1.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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