PTEN(Phospho-Ser380) Antibody

Catalog No: #AB11009

Package Size: #AB11009-1 50ul #AB11009-2 100ul #AB11009-4 25ul

Orders: order@abscitech.com
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Description

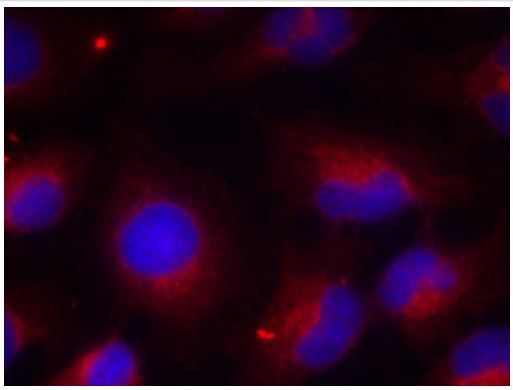
Product Name	PTEN(Phospho-Ser380) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Applications	IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of PTEN only when phosphorylated at serine 380.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 380(R-Y-S(p)-D-T) derived from Human PTEN.
Target Name	PTEN
Modification	Phospho-Ser380
Other Names	BZS, DEC, GLM2, MHAM, TEP1
Accession No.	Swiss-Prot: P60484NCBI Protein: NP_000305.3 NCBI Gene ID: 5728
Calculated MW	54kd
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

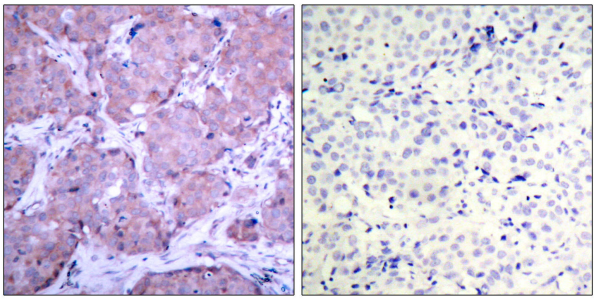
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

Images



Immunofluorescence staining of methanol-fixed HeLa cells using PTEN (phospho-Ser380) antibody (#AB11009, Red).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using PTEN (phospho-Ser380) antibody (#AB11009).

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.

References

Li D.M., Sun H. Cancer Res. 57:2124-2129(1997) Song M.S., Salmena L., Carracedo A., Egia A., Lo-Coco F., Teruya-Feldstein J., Pandolfi P.P. Nature 455:813-817(2008) Myers M.P., Stolarov J.P., Eng C., Li J., Wang S.I., Wigler M.H., Parsons R., Tonks N.K. Proc. Natl. Acad. Sci. U.S.A. 94:9052-9057(1997)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.