



Phospho-PTEN (Ser370) Antibody

Product Code	CSB-PA148620
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P60484
Immunogen	Peptide sequence around phosphorylation site of serine 370(D-V-S(p)-D-N) derived from Human PTEN.
Raised In	Rabbit
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of PTEN only when phosphorylated at serine 370.
Tested Applications	ELISA,WB,IHC,IF;WB:1:500-1:1000,IHC:1:50-1:100,IF:1:100-1:200

Relevance

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.

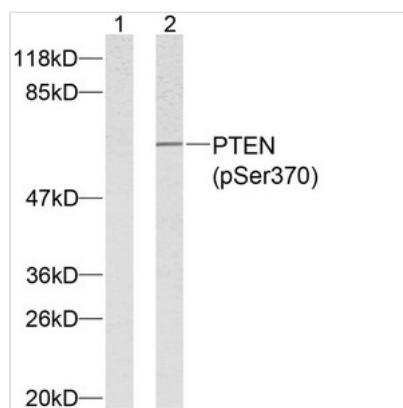
Myers M.P., Pass I., Batty I.H., Van der Kaay J., Stolarov J.P., Hemmings B.A., Wigler M.H., Downes C.P., Tonks N.K.Proc. Natl. Acad. Sci. U.S.A. 95:13513-13518(1998)

Song M.S., Salmena L., Carracedo A., Egia A., Lo-Coco F., Teruya-Feldstein J., Pandolfi P.P.Nature 455:813-817(2008)

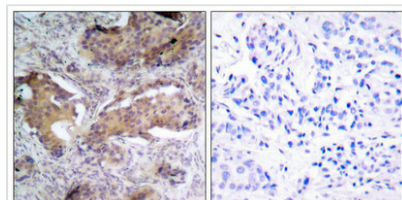
Scala S., Bruni P., Lo Muzio L., Mignogna M., Viglietto G., Fusco A.Int. J. Oncol. 13:665-668(1998)



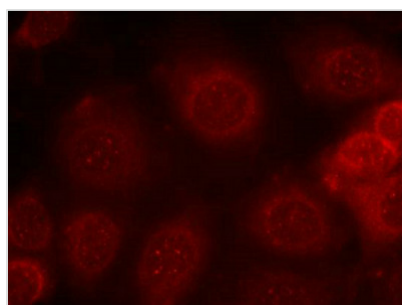
Form	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography
Clonality	Polyclonal
Alias	BZS; DEC; GLM2; MHAM; TEP1
Product Type	Polyclonal Antibody
Species	Homo sapiens (Human)
Target Names	PTEN

Image


Western blot analysis of extracts from HeLa cells using PTEN (phospho-Ser370) antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using PTEN (phospho-Ser370) antibody.



Immunofluorescence staining of methanol-fixed MCF7 cells using PTEN (phospho-Ser370) antibody.

Product Modify	Phospho-Ser370
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