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35-1055: Polyclonal Antibody to PTEN (Phospho-Ser380/Thr382/Thr383)

Clonality: Polyclonal Application: IHC,WB,IF

Reactivity: Rat, Mouse, Human

Gene : PTEN
Gene ID : 5728
Uniprot ID : P60484
Format : Purified

Alternative Name: MMAC1, Mutated in multiple advanced cancers 1, Protein-tyrosine phosphatase PTEN, TEP1

Isotype: Rabbit IgG

D-S) derived from Human PTEN.

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. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue. Al-Khouri AM, et al. (2005) J Biol Chem. 280(42):35195-35202. Torres J, et al. (2001) J Biol Chem. 276(2): 993-998. Vazquez F, et al. (2000) Mol Cell Biol. 20(14): 5010-5018.

Product Info

Amount : 50 μl / 100 μl

Content: 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 condition : Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid

repeated freeze and thaw cycles.

Application Note

 $Predicted \quad MW: \quad 54kd, \quad Western \quad blotting: \quad 1:500 \sim 1:1000, \quad Immunohistochemistry: \quad 1:50 \sim 1:100, \quad Immunofluorescence: \quad 1:500 \sim 1:1000, \quad Immunohistochemistry: \quad 1:500 \sim 1:1000, \quad Immunohi$

1:100~1:200



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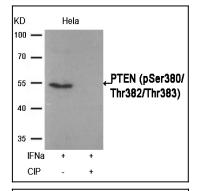


Figure 1: Western blot analysis of extracts from Hela cells, treated with IFNa or calf intestinal phosphatase (CIP), using PTEN (Phospho-Ser380/Thr382/Thr383) Antibody 35-1055.

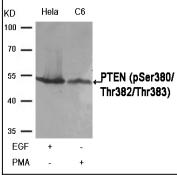


Figure 2: Western blot analysis of extracts from Hela and C6 cells,treated with EGF or PMA, using PTEN(Phospho-Ser380/Thr382/Thr383) Antibody 35-1055.

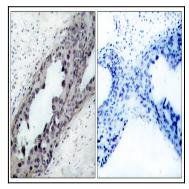


Figure 3: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using PTEN(Phospho-Ser380/Thr382/Thr383) Antibody 35-1055 (left) or the same antibody preincubated with blocking peptide(right).

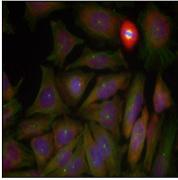
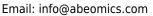


Figure 4: Immunofluorescence staining of methanol-fixed Hela cells using PTEN(Phospho-Ser380/Thr382/Thr383) Antibody 35-1055 .



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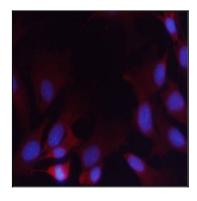


Figure 5 : Immunofluorescence staining of methanol-fixed MEFcells using PTEN (Phospho-Ser380/Thr382/Thr383)Antibody 35-1055 .