BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
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Anti-PTEN Antibody (N-term)

Catalog Number: M00006-4

About PTEN

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. In motile cells, suppresses the formation of lateral pseudopods and thereby promotes cell polarization and directed movement.

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Overview

Product Name	Anti-PTEN Antibody (N-term)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PTEN Antibody (N-term) (Catalog # M00006-4). Tested in WB application(s). This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Monoclonal 1096CT4.3.3
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	P60484

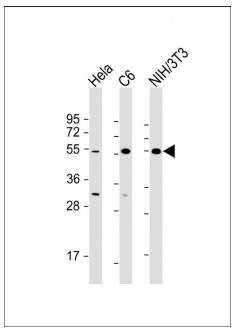
Technical Details

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Immunogen	This PTEN antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 10-44 amino acids from the N-terminal region of human PTEN.
Predicted Reactive Species	Xenopus
Isotype	IgG1,k
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	WB: 1:500-1:2000

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Anti-PTEN Antibody (N-term) (M00006-4) Images



All lanes : Anti-PTEN Antibody (N-term) at 1:500-1:2000 dilutionLane 1: Hela whole cell lysateLane 2: C6 whole cell lysateLane 3: NIH/3T3 whole cell lysateLysates/proteins at 20 µg per lane. SecondaryGoat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDaBlocking/Dilution buffer: 5% NFDM/TBST.

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For Research Use Only. Not for use in diagnostic procedures.