

Datasheet for ABIN6242544
anti-PTEN antibody (N-Term)



[Go to Product page](#)

1 Image

Overview

Quantity:	200 µL
Target:	PTEN
Binding Specificity:	AA 10-44, N-Term
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PTEN antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

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.
Clone:	1096CT4-3-3
Isotype:	IgG1 kappa
Predicted Reactivity:	X
Purification:	This antibody is purified through a protein G column, followed by dialysis against PBS.

Target Details

Target:	PTEN
Alternative Name:	PTEN (PTEN Products)

Target Details

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 $\text{PtdIns}(3,4,5)\text{P}_3 > \text{PtdIns}(3,4)\text{P}_2 > \text{PtdIns}3\text{P} > \text{Ins}(1,3,4,5)\text{P}_4$. 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.

Molecular Weight: 47166

UniProt: [P60484](#)

Pathways: [TCR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Inositol Metabolic Process](#), [Synaptic Membrane](#), [Regulation of Cell Size](#), [Autophagy](#), [Platelet-derived growth Factor Receptor Signaling](#), [Signaling of Hepatocyte Growth Factor Receptor](#), [BCR Signaling](#)

Application Details

Application Notes: WB: 1:500-1:2000

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Purified monoclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.

Preservative: Sodium azide

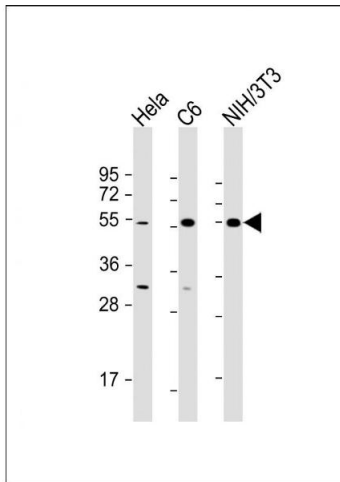
Handling

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Expiry Date: 6 months

Images



Western Blotting

Image 1. All lanes : Anti-PTEN Antibody (N-term) at 1:500-1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: C6 whole cell lysate Lane 3: NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa Blocking/Dilution buffer: 5 % NFDN/TBST.