

Datasheet for ABIN7321442

Recombinant anti-PTEN antibody (pSer380)[Go to Product page](#)**1** Image

Overview

Quantity:	50 µL
Target:	PTEN
Binding Specificity:	pSer380
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This PTEN antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	A synthesized peptide derived from human Phospho-PTEN (S380)
Clone:	4D10
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Affinity-chromatography

Target Details

Target:	PTEN
Alternative Name:	PTEN (PTEN Products)

Target Details

Background:	<p>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 $\text{PtdIns}(3,4,5)\text{P}_3 > \text{PtdIns}(3,4)\text{P}_2 > \text{PtdIns}3\text{P} > \text{Ins}(1,3,4,5)\text{P}_4$ (PubMed:26504226). 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.</p> <p>Aliases: Phosphatidylinositol 3, 4, 5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN, Mutated in multiple advanced cancers 1, Phosphatase and tensin homolog, PTEN, MMAC1, TEP1</p>
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:	Recommended dilution: WB:1:500-1:5000,
Restrictions:	For Research Use only

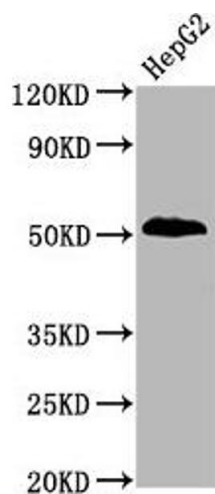
Handling

Format:	Liquid
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Handling

Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Western Blotting

Image 1. Western Blot Positive WB detected in HepG2 whole cell lysate All lanes Phospho-PTEN antibody at 1.9 μ g/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 54 KDa Observed band size: 54 KDa