Datasheet for ABIN3032215

anti-PTEN antibody (AA 264-295)

5 Images

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Overview

Quantity:	0.4 mL
Target:	PTEN
Binding Specificity:	AA 264-295
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PTEN antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	A portion of amino acids 264-295 from the human protein was used as the immunogen for this PTEN antibody.
Isotype:	Ig Fraction
Purification:	Purified

Target Details

Target:	PTEN
Alternative Name:	PTEN (PTEN Products)
Background:	PTEN (phosphatase and tensin homolog deleted on chromosome 10) acts as a tumor suppressor. Acts as a dual-specificity protein phosphatase, dephosphorylating tyrosine-, serine- and threonine-phosphorylated proteins. Also acts as a lipid phosphatase, removing the

Target Details

	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. [UniProt]
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:	Titration of the PTEN antibody may be required due to differences in protocols and secondary/substrate sensitivity.\. Western blot: 1:1000,Immunofluorescence: 1:10-1:50,IHC (Paraffin): 1:10-1:50
Restrictions:	For Research Use only

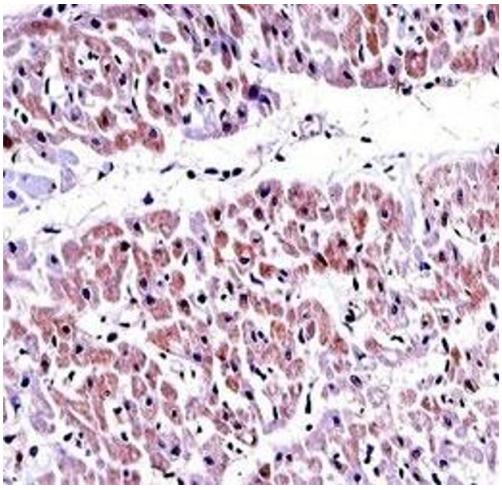
Handling

Format:	Liquid
Buffer:	In 1X PBS pH 7.4 with 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

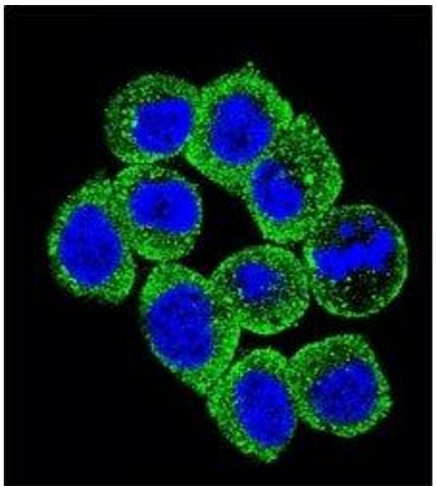
	should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Aliquot the PTEN antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

Images



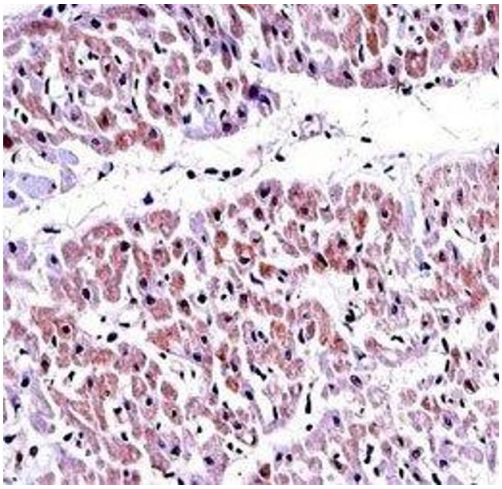
Immunohistochemistry

Image 1. PTEN antibody immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue.



Immunofluorescence

Image 2. Confocal immunofluorescent analysis of PTEN antibody with HeLa cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used as a nuclear counterstain (blue).



Immunohistochemistry

Image 3. PTEN antibody immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue.

Please check the product details page for more images. Overall 5 images are available for ABIN3032215.