Purdue Bioscience

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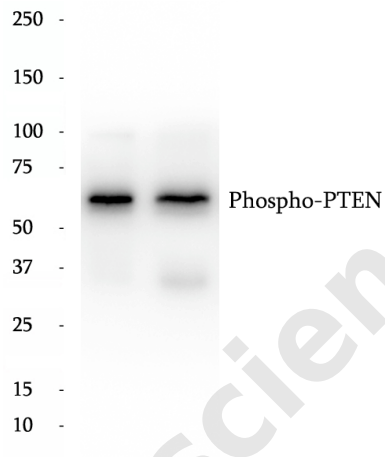
Data Sheet

Product Information

Catalog Number	BP63619
Product Name	Anti-Phospho-PTEN (Thr382/383) antibody
Description	PTEN is one of the most critical tumor suppressors, which functions at different subcellular locations, including the plasma membrane and nucleus. The PTEN protein is located at different subcellular regions-PTEN at the plasma membrane suppresses PI3-kinase signaling in cell growth, whereas PTEN in the nucleus maintains genome integrity. At the plasma membrane, PTEN counteracts PI3 kinase signaling by dephosphorylating the potent second messenger PIP3 to PIP2. The loss of PTEN in cancer cells results in over-activation of AKT and mTOR signaling, leading to excessive stimulation of cell growth and inhibition of cell death. In the nucleus, PTEN functions in DNA repair, genome stability, and cell cycle control through associations with Rad51 and p53. PTEN stability is primarily regulated by phosphorylation of C-terminal tail domains (Thr366, Ser370, Ser380, Thr382, Thr383, and Ser385). The phosphorylation leads to a "closed" state of PTEN and maintains PTEN stability. Dephosphorylation of the C-terminal tail opens the PTEN phosphatase domain, thereby increasing PTEN activity. PTEN protein is of the apparent molecular mass expected for PTEN (55 kDa) and PTENα (70 kDa).
Tested Applications	WB: 1:1000; IF: 1:100-1:300; IHC:1:50-1:200
Species Reactivity	Human, Mouse, Rat
Host Species/Isotype	Rabbit/IgG
Molecular Weight	55-70 kDa
GenBank	BC005821

Uniprot	P60484
Concentration	900 µg/ml
Form	Liquid
Storage Instruction	10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do Not Aliquot.
Chemical Structure OR Tested Image	

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