

PTEN Polyclonal Antibody

Catalog NumberPA5-20418

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human, Mouse
Host/Isotope	Rabbit / IgG	Published species	Human
Class	Polyclonal	Tested Applications	Dilution *
Type	Antibody	Immunoprecipitation (IP)	Assay-dependent
Immunogen	A 15 amino acid peptide from near the amino terminus of human PTEN.	Western Blot (WB)	1-2 µg/mL
Conjugate	Unconjugated	Published Applications	
Form	Liquid	In vitro Assay (IV)	See 1 publications below
Concentration	1 mg/mL	Western Blot (WB)	See 1 publications below
Purification	Antigen affinity chromatography	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS		
Contains	0.02% sodium azide		
Storage Conditions	Maintain refrigerated at 2-8°C for up to 3 months. For long term storage store at -20°C		

Product specific information

A suggested positive control is P815 cell lysate. PA5-20418 can be used with blocking peptide PEP-0535.

Background/Target Information

PTEN was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The PTEN gene is a phosphatidylinositol-3, 4, 5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. PTEN negatively regulates intracellular levels of phosphatidylinositol-3, 4, 5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. PTEN 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. Also, PTEN 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 of PTEN induces less tumor suppressive ability.

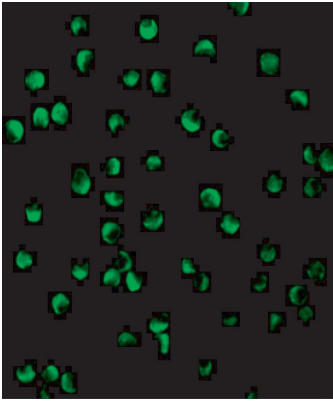
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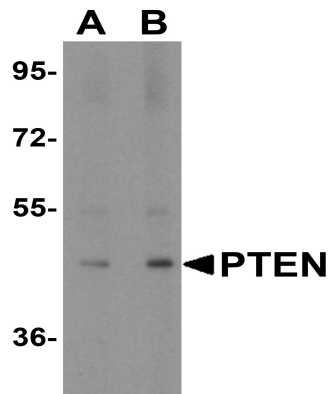
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Product Images For PTEN Polyclonal Antibody



PTEN Antibody (PA5-20418) in ICC/IF
Immunofluorescence of PTEN in P815 cells with PTEN Polyclonal Antibody (Product # PA5-20418) at 2 µg/mL.



PTEN Antibody (PA5-20418) in WB
Western Blot analysis of PTEN in human brain tissue lysate with PTEN Polyclonal Antibody (Product # PA5-20418) at (A) 1 and (B) 2 µg/mL..

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PubMed References For PTEN Polyclonal Antibody

1 In vitro Assay References

Species / Dilution	Summary
	PA5-20418 was used in Western Blot, In vitro Assay experiments to present RedoxiFluor.
Human / Not Cited	Free radical biology & medicine (2022; 181: 118) "RedoxiFluor: A microplate technique to quantify target-specific protein thiol redox state in relative percentage and molar terms." Author(s):Tuncay A,Noble A,Guille M,Cobley JN PubMed Article URL: http://dx.doi.org/10.1016/j.freeradbiomed.2022.01.023

1 Western Blot References

Species / Dilution	Summary
	PA5-20418 was used in Western Blot, In vitro Assay experiments to present RedoxiFluor.
Human / Not Cited	Free radical biology & medicine (2022; 181: 118) "RedoxiFluor: A microplate technique to quantify target-specific protein thiol redox state in relative percentage and molar terms." Author(s):Tuncay A,Noble A,Guille M,Cobley JN PubMed Article URL: http://dx.doi.org/10.1016/j.freeradbiomed.2022.01.023

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