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Datasheet for ABIN6242539  
**anti-PTEN antibody (C-Term)**

3 Images

1 Publication

### Overview

Quantity:	400 µL
Target:	PTEN
Binding Specificity:	AA 264-295, C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PTEN antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

### Product Details

Immunogen:	This PTEN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 264-295 amino acids from the C-terminal region of human PTEN.
Clone:	RB5083
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

### Target Details

Target:	PTEN
Alternative Name:	PTEN ( <a href="#">PTEN Products</a> )

## Target Details

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**Background:** PTEN, (phosphatase and tensin homolog deleted on chromosome 10), also known as MMAC1 (mutated in multiple advanced cancers 1), is a tumor suppressor implicated in a large number of human tumors. The PTEN phosphatase incorporates the catalytic motif (HCXXGXXRS/T) that is a signature of the protein tyrosine phosphatase family. Recombinant human PTEN is a dual phosphatase with ability to dephosphorylate both tyrosine and serine/threonine residues. PTEN functions primarily as a lipid phosphatase to regulate signal transduction pathways, with a primary target identified as phosphatidylinositol 3,4,5 trisphosphate. In addition, PTEN presents weak tyrosine phosphatase activity, which may downregulate signaling pathways involving focal adhesion kinase or Shc. PTEN negatively regulates activation of the serine/threonine kinase Akt/PKB by blocking its phosphorylation, thereby inhibiting the PI 3 kinase Akt signaling pathway, which is important for cell survival. In vivo, the majority of PTEN missense mutations detected in tumor specimens target the phosphatase domain and cause a loss in PTEN phosphatase activity. Mutations in PTEN are associated with several common cancers including prostate, brain and breast cancer, and with Cowden's disease, an autosomal dominant disorder conferring susceptibility to benign and malignant tumors. Germline mutations of PTEN are also linked Lhermitte-Duclos disease and Bannayan-Zonana syndrome. Mutations of PTEN occur in 60 to 80 % of prostate cancers. PTEN is also essential for embryonic development.

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**Molecular Weight:** 47166

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**NCBI Accession:** [NP\\_000305](#)

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**UniProt:** [P60484](#)

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**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

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**Application Notes:** IF: 1:10~50. WB: 1:1000. IHC-P: 1:10~50

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**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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

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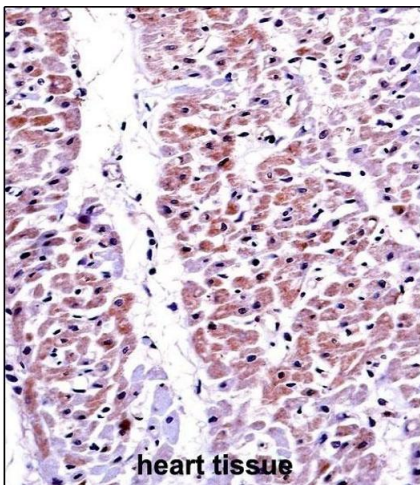
## Handling

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:	4 °C,-20 °C
Expiry Date:	6 months

## Publications

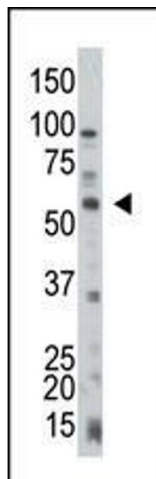
Product cited in: Agouni, Mody, Owen, Czopek, Zimmer, Bentires-Alj, Bence, Delibegović: "Liver-specific deletion of protein tyrosine phosphatase (PTP) 1B improves obesity- and pharmacologically induced endoplasmic reticulum stress." in: **The Biochemical journal**, Vol. 438, Issue 2, pp. 369-78, (2011) ([PubMed](#)).

## Images



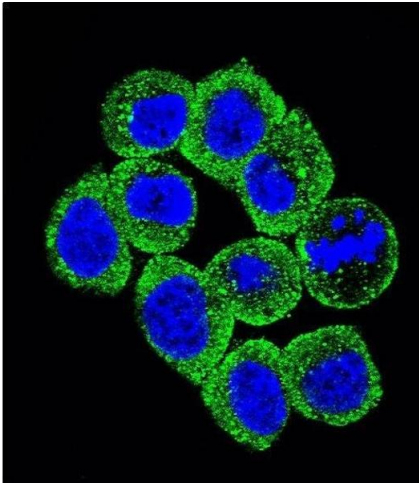
### Immunohistochemistry (Paraffin-embedded Sections)

**Image 1.** PTEN Antibody (C-term ) ((ABIN6242539 and ABIN6579043))immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PTEN Antibody (C-term ) for immunohistochemistry. Clinical relevance has not been evaluated.



### Western Blotting

**Image 2.** The anti-PTEN Pab (ABIN6242539 and ABIN6579043) is used in Western blot to detect PTEN in HL-60 cell lysate.



### Immunofluorescence

**Image 3.** Confocal immunofluorescent analysis of PTEN Antibody (C-term ) (ABIN6242539 and ABIN6579043) with HeLa cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).