

PRODUCT INFORMATION



PTEN Polyclonal Antibody

Item No. 10005059

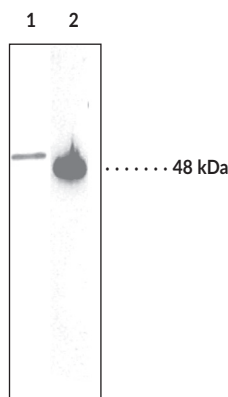
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US Patent: 7,217,795

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	Mutated in Multiple Advanced Cancers 1, MMAC1, Phosphatidylinositol-(3,4,5)-Triphosphate 3-Phosphatase and Dual-specificity Protein Phosphatase, TEP1
Immunogen:	Peptide from the internal region of human PTEN
Cross Reactivity:	(+) PTEN
Species Reactivity:	(+) Human, mouse, and rat; other species not tested
Uniprot No.:	P60484
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Rabbit
Applications:	Western blot (WB); the recommended starting dilution for WB is 1:200. Other application were not tested, therefore optimal working dilution should be determined empirically.

Image



Lane 1: A431 cell lysate (50 µg)
Lane 2: Rat brain (30 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Phosphatase and tensin homolog (PTEN) is a tumor suppressor with roles in cell division, cell migration, and apoptosis.¹⁻⁴ It is ubiquitously expressed and localized to the cytosol and nucleus where it dephosphorylates phosphatidylinositol-(3,4,5)-triphosphate (PIP3) to phosphatidylinositol-(3,4)-diphosphate (PIP2) to antagonize PI3K signaling and regulates spliceosome assembly and pre-mRNA splicing, respectively.² PTEN inhibits cell cycle progression and induces apoptosis, as well as inhibits cell adhesion and migration *in vitro*.⁵ PTEN deletions have been found in various cancers, including glioblastomas and prostate, breast, and kidney cells. Germline mutations in *PTEN* induce a variety of syndromes, including Cowden, Bannayan-Riley-Ruvalcaba, Proteus, and Proteus-like syndromes, that are characterized by increased risk of cancers, developmental delays, autism spectrum disorders, and macrocephaly.⁴ Cayman's PTEN Polyclonal antibody can be used for Western blot applications.

References

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3. Boossani, C.S., Gunasekar, P., and Agrawal, D.K. An update on PTEN modulators - A patent review. *Expert Opin. Ther. Pat.* **29**(11), 881-889 (2019).
4. Nunes-Santos, C.J., Uzel, G., and Rosenzweig, S.D. PI3K pathway defects leading to immunodeficiency and immune dysregulation. *J. Allergy Clin. Immunol.* **143**(5), 1676-1687 (2019).
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