

PRODUCT INFORMATION



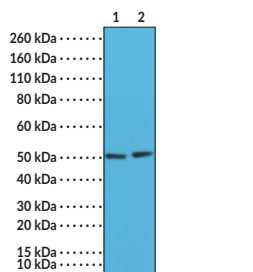
PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265)

Item No. 32215

Overview and Properties

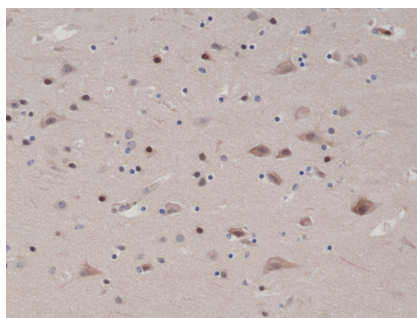
Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	MMAC1, Mutated in Multiple Advanced Cancers 1, Phosphatidylinositol-(3,4,5)-triphosphate 3-phosphatase and Dual-specificity Protein Phosphatase, TEP1
Immunogen:	Peptide from the C-terminal region of human PTEN
Cross Reactivity:	(+) PTEN
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM265
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC and WB is 1:1,000-1:2,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

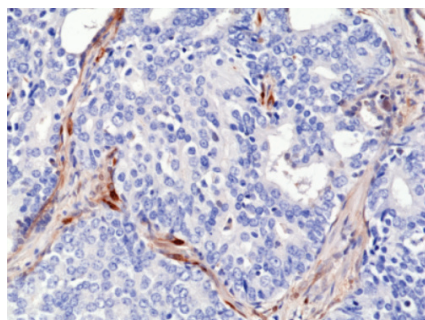


Lane 1: HeLa cell lysate
Lane 2: HEK293 cell lysate

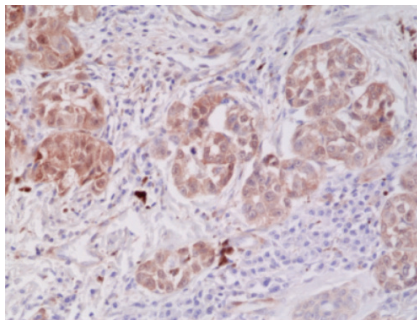
WB of HeLa and HEK293 cell lysates. HeLa and HEK293 cell lysates were subjected to WB using PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain tissue sections using PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human prostate cancer sections using PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human melanoma sections using PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265) at a dilution of 1:2,000.

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.

Copyright Cayman Chemical Company, 01/31/2024

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



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, which are characterized by increased risk of cancers, developmental delays, autism spectrum disorders, and macroencephaly.⁴ Cayman's PTEN (C-Term) Rabbit Monoclonal Antibody (Clone RM265) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Di Cristofano, A. and Pandolfi, P.P. The multiple roles of PTEN in tumor suppression. *Cell* **100(4)**, 387-390 (2000).
2. Liang, H. and Yin, Y. Multiple roles of PTEN isoforms PTEN α and PTEN β in cellular activities and tumor development. *Sci. China Life Sci.* **62(12)**, 1722-1724 (2019).
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).
5. Dahia, P.L.M. PTEN, a unique tumor suppressor gene. *Endocr. Relat. Cancer* **7(2)**, 115-129 (2000).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM