

PTEN (FL-403): sc-9145

BACKGROUND

As human tumors progress to advanced stages, one genetic alteration that occurs at high frequency is a loss of heterozygosity (LOH) at chromosome 10q23.31. Mapping of homozygous deletions on this chromosome led to the isolation of the PTEN gene, also designated MMAC1 (for mutated in multiple advanced cancers) and TEP1. This candidate tumor suppressor gene exhibits a high frequency of mutations in human glioblastomas and is also mutated in other cancers, including sporadic brain, breast, kidney and prostate cancers. PTEN has been associated with Cowden disease, an autosomal dominant cancer predisposition syndrome. The PTEN gene product is a putative protein tyrosine phosphatase that is localized to the cytoplasm, and it shares extensive homology with the cytoskeletal proteins tensin and auxilin. Gene transfer studies have indicated that the phosphatase domain of PTEN is essential for growth suppression of glioma cells.

CHROMOSOMAL LOCATION

Genetic locus: PTEN (human) mapping to 10q23.31; Pten (mouse) mapping to 19 C1.

SOURCE

PTEN (FL-403) is a rabbit polyclonal antibody raised against amino acids 1-403 representing full length PTEN of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PTEN (FL-403) is recommended for detection of PTEN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PTEN (FL-403) is also recommended for detection of PTEN in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PTEN siRNA (h): sc-29459, PTEN siRNA (m): sc-36326, PTEN siRNA (r): sc-61873, PTEN shRNA Plasmid (h): sc-29459-SH, PTEN shRNA Plasmid (m): sc-36326-SH, PTEN shRNA Plasmid (r): sc-61873-SH, PTEN shRNA (h) Lentiviral Particles: sc-29459-V, PTEN shRNA (m) Lentiviral Particles: sc-36326-V and PTEN shRNA (r) Lentiviral Particles: sc-61873-V.

Molecular Weight of PTEN: 55 kDa.

Positive Controls: PTEN (m): 293T Lysate: sc-122834, HeLa whole cell lysate: sc-2200 or KNRK whole cell lysate: sc-2214.

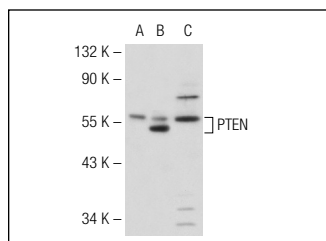
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

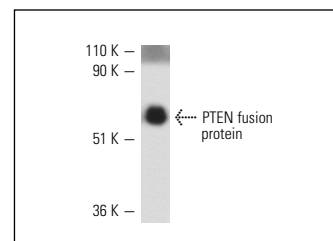
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



PTEN (FL-403): sc-9145. Western blot analysis of PTEN expression in non-transfected 293T: sc-117752 (A), mouse PTEN transfected 293T: sc-122834 (B) and HeLa (C) whole cell lysates.



PTEN (FL-403): sc-9145. Western blot analysis of human recombinant PTEN fusion protein.

SELECT PRODUCT CITATIONS

- Délérès, P., et al. 2003. SHIP-2 and PTEN are expressed and active in vascular smooth muscle cell nuclei, but only SHIP-2 is associated with nuclear speckles. *J. Biol. Chem.* 278: 38884-38891.
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- He, J., et al. 2010. The p85 β regulatory subunit of PI3K serves as a substrate for PTEN protein phosphatase activity during Insulin mediated signaling. *Biochem. Biophys. Res. Commun.* 397: 513-519.
- Yu, S., et al. 2011. 17- β -estradiol induces neoplastic transformation in prostatic epithelial cells. *Cancer Lett.* 304: 8-20.
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- Miraglia, E., et al. 2011. Statins exhibit anticancer effects through modifications of the pAkt signaling pathway. *Int. J. Oncol.* 40: 867-875.
- Floden, A.M., et al. 2011. Microglia demonstrate age-dependent interaction with amyloid- β fibrils. *J. Alzheimers Dis.* 25: 279-293.

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