PTEN (G-6): sc-133242

**BACKGROUND**

As human tumors progress to advanced stages, one genetic alteration that occurs at high frequency is the 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 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

PTEN (G-6) is a mouse monoclonal antibody raised against amino acids 1-403 representing full length PTEN of human origin.

**PRODUCT**

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

PTEN (G-6) is available conjugated to agarose (sc-133242 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133242 HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-133242 PE), fluorescein (sc-133242 FITC), Alexa Fluor® 488 (sc-133242 AF488), Alexa Fluor® 546 (sc-133242 AF546), Alexa Fluor® 594 (sc-133242 AF594) or Alexa Fluor® 647 (sc-133242 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-133242 AF680) or Alexa Fluor® 790 (sc-133242 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

PTEN (G-6) is recommended for detection of PTEN of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 (G-6) is also recommended for detection of PTEN in additional species, including canine.


Molecular Weight of PTEN: 55 kDa.


**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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