

Rabbit anti-PTEN

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Rev. 1.00

Catalog Number: 512400

Store at 2 to 8°C (short-term), or -20°C (long-term)

Clonality: Polyclonal
Concentration: 0.25 mg/mL
Quantity: 200 µg
Volume: 800 µL

Host/Class: Rabbit
Reactivity: Human and mouse
Predicted Reactivity: Dog and rat

Product Description

PTEN was recently identified as a candidate tumor suppressor gene. Deletions or mutations within the PTEN gene have been observed in a variety of tumor cell lines and cancer cell types. Based on PTEN's structural features, the protein was originally thought to be a protein tyrosine phosphatase. However, recent evidence indicates that PTEN is actually a lipid phosphatase rather than a protein tyrosine phosphatase. In fact, the target substrate for PTEN is phosphatidylinositol-3,4,5-triphosphate (Ptd-Ins(3,4,5)P3). Ptd-Ins(3,4,5)P3 is a critical second messenger involved in cell signaling and growth control. Ptd-Ins(3,4,5)P3 is produced by phosphorylation of Ptd-Ins(4,5)P2 by PI 3-kinase in response to stimulation by various ligands. By dephosphorylating Ptd-Ins(3,4,5)P3, PTEN functions to "turn off" the Ptd-Ins(3,4,5)P3 pathway and thereby suppress cellular proliferation. This antibody detects the ~55 kDa PTEN protein. The antibody will recognize both endogenous PTEN and transfected, overexpressed PTEN. During development reactivity was confirmed with human and mouse PTEN proteins. Reactivity with other species has not been tested. Based on sequence homology, reactivity with other species, including dog and rat, seem likely.

Product Specifications

Immunogen: A 22 amino acid synthetic peptide derived from the carboxy-terminus of the human PTEN protein. This sequence is 100% conserved with the dog PTEN protein and differs by only one amino acid from the rat and mouse PTEN proteins

Alternate Names: MMAC1

Apparent MW: ~55 kDa

Sequence Homology: Dog and rat

Clone/PAD: PN37

Lot: See product label

Product Applications

Application	Species	Concentration
ELISA	Immunogen	0.1–1 µg/mL
Western Blotting	Human and mouse	1–3 µg/mL

Storage and Handling

Store at 2 to 8°C for up to one month. Store at -20°C for long term storage. Avoid repeated freezing and thawing.

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

Storage Buffer

Phosphate buffered saline (PBS), pH 7.4, containing 0.1% sodium azide.

Caution: Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Properly dispose of solutions containing sodium azide.

Safety Data Sheets (SDS)








Safety Data Sheets (SDSs) are available at www.lifetechnologies.com/support.

Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to www.lifetechnologies.com/support and search for the Certificate of Analysis by product lot number, which is printed on the box.

For research use only. Not for use in diagnostic procedures.

Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

Limited Use Label License: Research Use Only

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