

For Research Use Only

# PTEN Polyclonal antibody

Catalog Number: 22034-1-AP

Featured Product

72 Publications



## Basic Information

**Catalog Number:**

22034-1-AP

**Size:**

150UL, Concentration: 307 µg/ml by Bradford method using BSA as the standard;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG17274

**GenBank Accession Number:**

BC005821

**GeneID (NCBI):**

5728

**Full Name:**

phosphatase and tensin homolog

**Calculated MW:**

47 kDa

**Observed MW:**

55 kDa, 68 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:2000-1:10000

IP 0.5-4.0 µg for IP and 1:500-1:1000 for WB

IHC 1:500-1:2000

## Applications

**Tested Applications:**

IHC, IP, WB, ELISA

**Cited Applications:**

IF, IHC, IP, WB

**Species Specificity:**

human, mouse

**Cited Species:**

human, mouse, rat

**Positive Controls:**

WB : DU 145 cells, mouse thymus tissue, HeLa cells, mouse testis tissue, C6 cells, rat testis tissue

IP : DU 145 cells,

IHC : human breast cancer tissue, human prostate cancer tissue, human testis tissue, mouse brain tissue, human colon cancer tissue

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

PTEN(Phosphatase and tensin homolog) is also named as MMAC1, TEP1 and it modulates cell cycle progression and cell survival (blockage) through down-regulating the positive cell cycle-regulator (cycle D1) by its phosphatase activity and up-regulating the negative cell cycle regulator p21 (by its lipid phosphatase activity). PTEN is an important tumor suppressor whose inactivation frequency in cancers is ranked second after p53 tumor suppressor inactivation. PTEN is a 403-residue protein structured in an amino (N)-terminal phosphatase domain and a carboxy (C)-terminal C2 domain that binds phospholipid membranes.(PMID:14749127). There are some reports showing that SUMOylation appears to be a positive regulator in controlling PTEN membrane association, whereas phosphorylation is a negative regulator that may neutralize SUMOylation through intramolecular electrostatic interactions (PMID:22713753). This antibody can recognize two isoforms with MW of 55kDa and 68 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Jing Zhao	32986180	Biotechnol Lett	WB
Shuchao Wang	30240910	Ann Anat	WB
Wen-Jing Shi	32950808	Cytokine	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

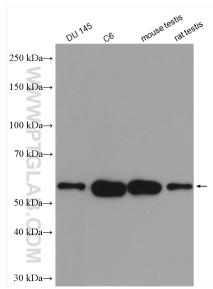
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

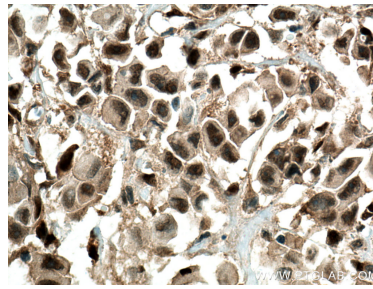
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

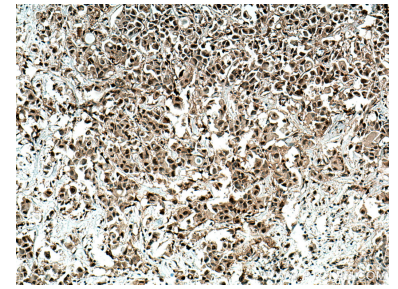
## Selected Validation Data



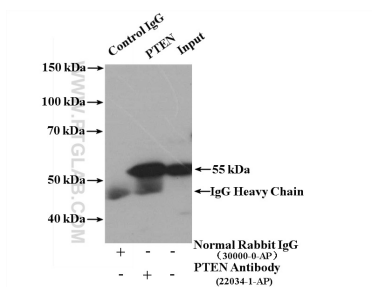
Various lysates were subjected to SDS PAGE followed by western blot with 22034-1-AP (PTEN antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22034-1-AP (PTEN antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22034-1-AP (PTEN antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-PTEN (IP:22034-1-AP, 4ug; Detection:22034-1-AP 1:500) with DU 145 cells lysate 1800 ug.