

For Research Use Only

# PTEN Polyclonal antibody

Catalog Number: 22034-1-AP

Featured Product

154 Publications



## Basic Information

**Catalog Number:**

22034-1-AP

**Size:**

600 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG17274

**GenBank Accession Number:**

BC005821

**GeneID (NCBI):**

5728

**UNIPROT ID:**

P60484

**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 1.0-3.0 mg of total protein lysate

IHC 1:500-1:2000

## Applications

**Tested Applications:**

FC, IHC, IP, WB, ELISA

**Cited Applications:**

WB, IP, IF, IHC, CoIP

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, rat, mouse, bovine

**Positive Controls:**

**WB:** DU 145 cells, HeLa cells, mouse testis tissue, NIH/3T3 cells, HEK-293T cells, C6 cells, rat testis tissue, MCF-7 cells, LNCaP cells, Jurkat cells

**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 55 kDa and 68 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Jing Zhao	32986180	Biotechnol Lett	WB
XIAOYUE FENG	34528694	Oncol Rep	WB, IHC
Shuchao Wang	30240910	Ann Anat	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:

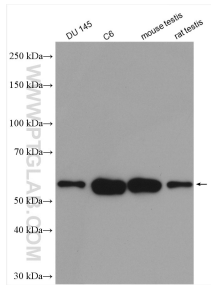
T: 4006900926

E: Proteintech-CN@ptglab.com

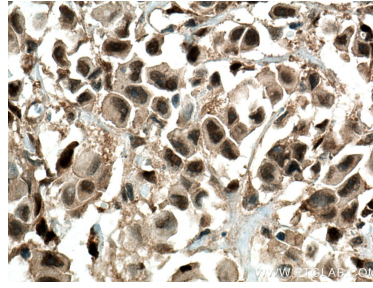
W: ptgcn.com

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

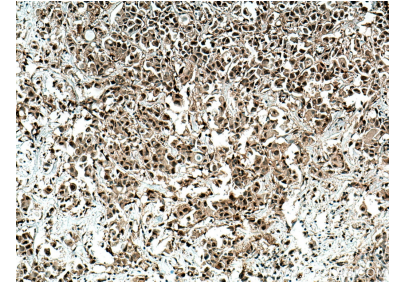
## Selected Validation Data



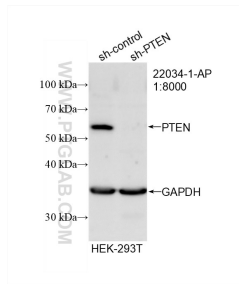
Various lysates were subjected to SDS PAGE followed by western blot with 22034-1-AP (PTEN antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



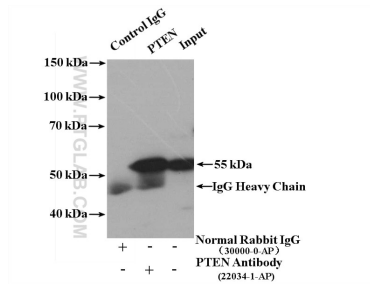
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22034-1-AP (PTEN antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



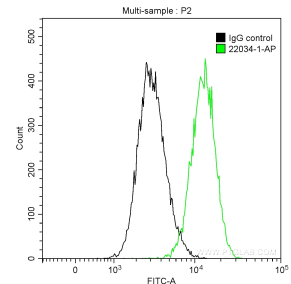
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22034-1-AP (PTEN antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



WB result of PTEN antibody (22034-1-AP; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PTEN transfected HEK-293T cells.



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



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.2 ug Anti-Human PTEN (22034-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (green), and 0.2 ug Control Antibody. Cells were fixed with 90% MeOH.