For Research Use Only

PTEN Polyclonal antibody

Catalog Number:22034-1-AP Featured Product 186 Publications

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Basic Information

Catalog Number:
22034-1-AP

Size:
150ul , Concentration: 600 μg/ml by Nanodrop;

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 ug for 1.0-3.0 mg of total protein lysate
IHC: 1:500-1:2000

Applications

Tested Applications:
WB, IHC, IP, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP, RIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, bovine

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

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

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 report 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
XIAOYUE FENG	34528694	Oncol Rep	WB,IHC
Shuchao Wang	30240910	Ann Anat	WB

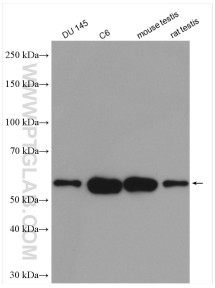
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

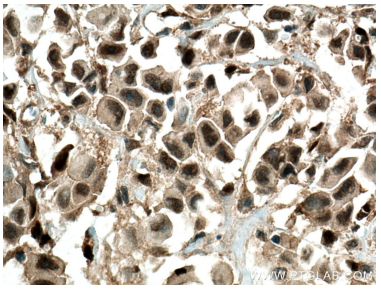
***** 20ul sizes contain 0.1% BSA**

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

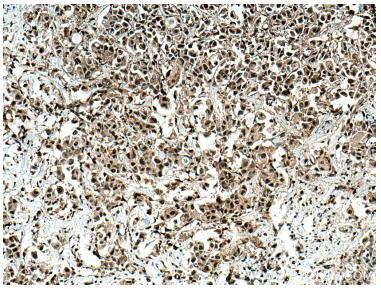
Selected Validation Data



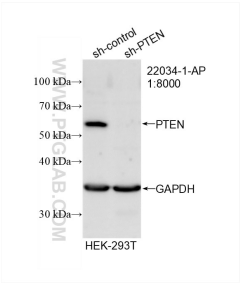
Various lysates were subjected to SDS PAGE followed by western blot with 22034-1-AP (PTEN antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



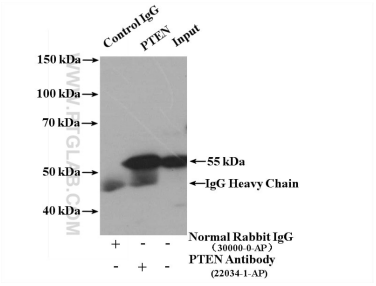
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22034-1-AP (PTEN antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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.