

## PTEN Polyclonal Antibody

<b>Catalog No :</b>	YT5752
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	IF;WB;IHC;ELISA
<b>Target :</b>	PTEN
<b>Fields :</b>	>>Inositol phosphate metabolism;>>Metabolic pathways;>>EGFR tyrosine kinase inhibitor resistance;>>FoxO signaling pathway;>>Phosphatidylinositol signaling system;>>Sphingolipid signaling pathway;>>p53 signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>Cellular senescence;>>Focal adhesion;>>Insulin resistance;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Pathways in cancer;>>MicroRNAs in cancer;>>Chemical carcinogenesis - reactive oxygen species;>>Endometrial cancer;>>Glioma;>>Prostate cancer;>>Melanoma;>>Small cell lung cancer;>>Breast cancer;>>Hepatocellular carcinoma;>>Central carbon metabolism in cancer;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Diabetic cardiomyopathy
<b>Gene Name :</b>	PTEN MMAC1 TEP1
<b>Protein Name :</b>	PTEN
<b>Human Gene Id :</b>	5728
<b>Human Swiss Prot No :</b>	P60484
<b>Mouse Gene Id :</b>	19211
<b>Mouse Swiss Prot No :</b>	O08586
<b>Immunogen :</b>	Synthesized peptide derived from PTEN at AA range: 251-300
<b>Specificity :</b>	PTEN Polyclonal Antibody detects endogenous levels of PTEN
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

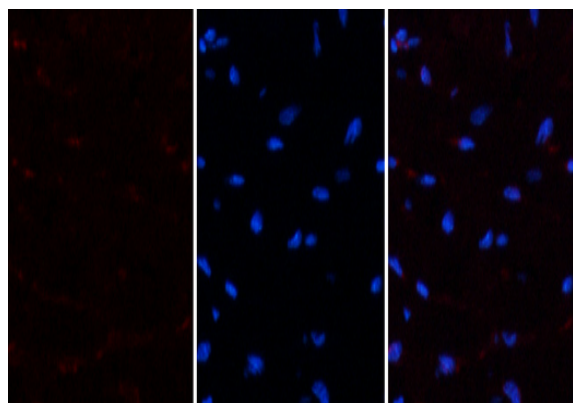
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IF 1:50-200 IHC: 100-300.WB 1:500-2000, ELISA 1:10000-20000
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	50kD
<b>Cell Pathway :</b>	Inositol phosphate metabolism;Phosphatidylinositol signaling system;p53;Focal adhesion;Tight junction;Pathways in cancer;Endometrial cancer;Glioma;Prostate cancer;Melanoma;Small cell lung cancer;
<b>Background :</b>	This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. The use of a non-canonical (CUG) upstream initiation site produces a longer isoform that initiates translation with a leucine, and is thought to be preferentially associated with the mitochondrial inner membrane. This longer isoform may help regulate ener
<b>Function :</b>	catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,catalytic activity:Phosphatidylinositol 3,4,5-trisphosphate + H(2)O = phosphatidylinositol 4,5-bisphosphate + phosphate.,catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,cofactor:Magnesium.,disease:A microdeletion of chromosome 10q23 involving PTEN and BMPR1A is a cause of chromosome 10q23 deletion syndrome [MIM:612242]. This syndrome shows overlapping features of the following three disorders: Bannayan-Zonana syndrome, Cowden disease and juvenile polyposis syndrome.,disease:Defects in PTEN are a cause of Bannayan-Zonana syndrome (BZS) [MIM:153480]; also known as Ruvalcaba-Riley-Smith or Bannayan-Riley-Ruvalcaba syndrome (BRRS). In BZS there seems not to be an increased risk of malignancy. It has a partial clinical overlap with CD. BZS is characterized by the classic triad of macroce
<b>Subcellular Location :</b>	Cytoplasm . Nucleus . Nucleus, PML body . Monoubiquitinated form is nuclear. Nonubiquitinated form is cytoplasmic. Colocalized with PML and USP7 in PML nuclear bodies (PubMed:18716620). XIAP/BIRC4 promotes its nuclear

localization (PubMed:19473982). .; [Isoform alpha]: Secreted . May be secreted via a classical signal peptide and reenter into cells with the help of a poly-Arg motif.

### Expression :

Expressed at a relatively high level in all adult tissues, including heart, brain, placenta, lung, liver, muscle, kidney and pancreas.

## Products Images

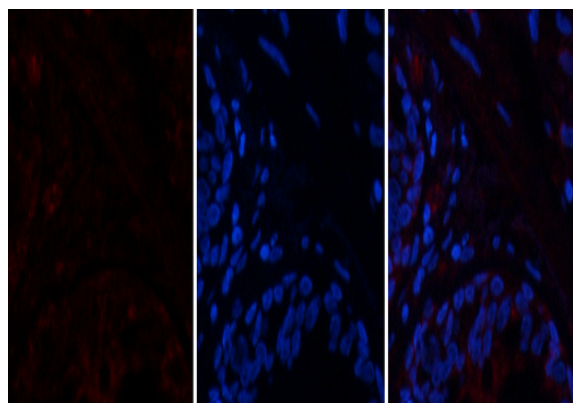


A

B

C

Immunofluorescence analysis of human-heart tissue. 1,PTEN Polyclonal Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

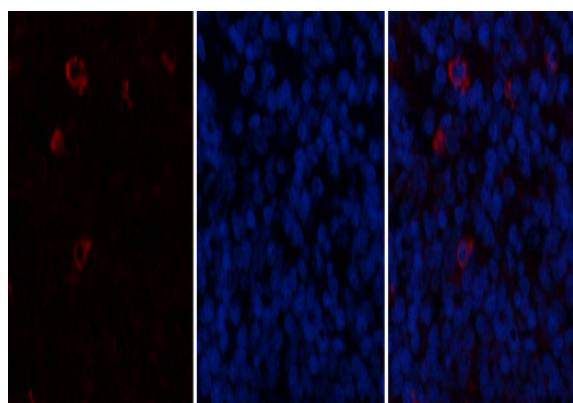


A

B

C

Immunofluorescence analysis of human-lung tissue. 1,PTEN Polyclonal Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

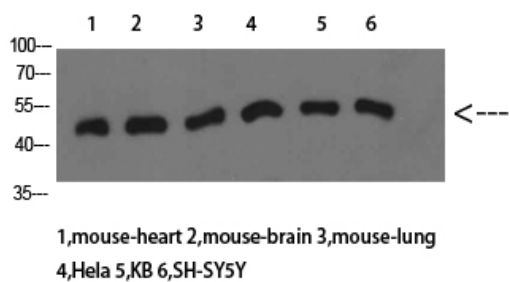


A

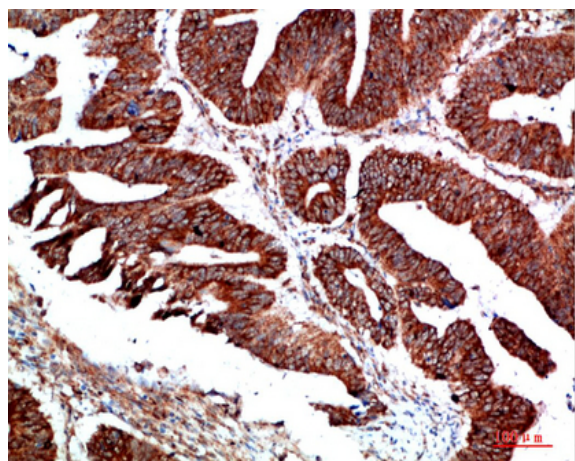
B

C

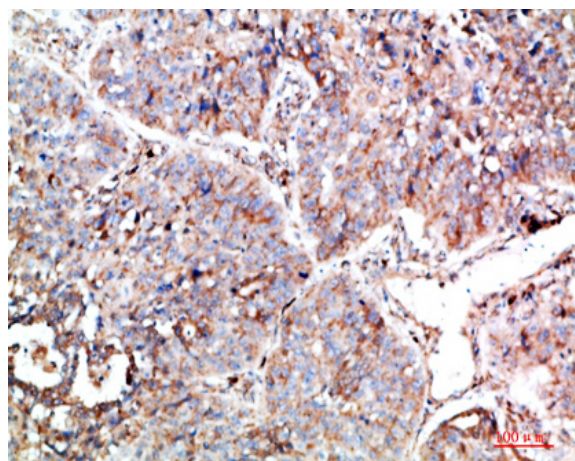
Immunofluorescence analysis of rat-spleen tissue. 1,PTEN Polyclonal Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



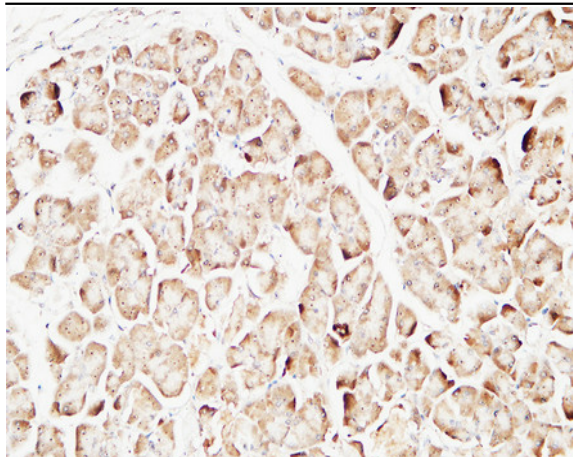
Western Blot analysis of mouse-heart mouse-brain mouse-lung HeLa KB SH-SY5Y cells using PTEN Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-colon-cancer, antibody was diluted at 1:200



Immunohistochemical analysis of paraffin-embedded human-lung-cancer, antibody was diluted at 1:200



Immunohistochemical analysis of paraffin-embedded Human pancreas. 1, Antibody was diluted at 1:200(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).