

ANTEN (ANT0026R) Rabbit mAb

CatalogNo: ANT8142 **Recombinant** 

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species

- Rabbit
- Human,Mouse,Rat,

Reactivity

- WB,IF,IP,ELISA

Applications

MW

- 47kD (Calculated)
 - IgG,Kappa
- 56kD (Observed)

Isotype

Recommended Dilution Ratios

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200,

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality Monoclonal

Clone Number ANT0026R

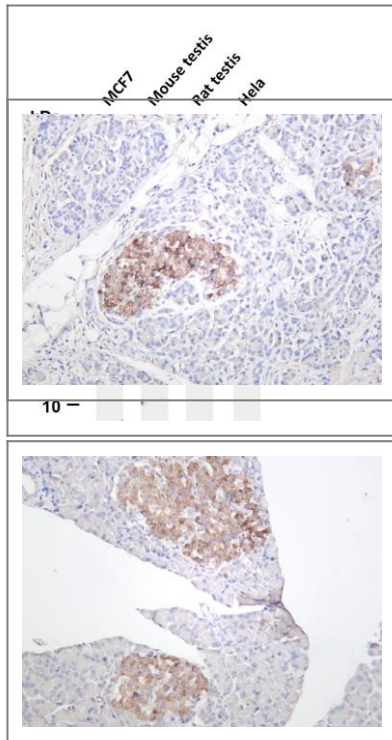
Immunogen Information

Specificity Endogenous

Target Information

Gene name	PTEN MMAC1 TEP1		
Protein Name	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN (Mutated in multiple advanced cancers 1) (Phosphatase and tensin homolog)		
	Organism	Gene ID	UniProt ID
	Human	5728 ;	P60484 ;
	Mouse	19211 ;	O08586 ;
Cellular Localization	Cytoplasm, Nuclear		
Tissue specificity	Expressed at a relatively high level in all adult tissues, including heart, brain, placenta, lung, liver, muscle, kidney and pancreas.		
Function	<p>Tumor suppressor. Acts as a dual-specificity protein phosphatase, dephosphorylating tyrosine-, serine- and threonine-phosphorylated proteins. Also acts as a lipid phosphatase, removing the phosphate in the D3 position of the inositol ring from phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 3,4-diphosphate, phosphatidylinositol 3-phosphate and inositol 1,3,4,5-tetrakisphosphate with order of substrate preference in vitro</p> <p>PtdIns(3,4,5)P3 > PtdIns(3,4)P2 > PtdIns3P > Ins(1,3,4,5)P4 . The lipid phosphatase activity is critical for its tumor suppressor function. Antagonizes the PI3K-AKT/PKB signaling pathway by dephosphorylating phosphoinositides and thereby modulating cell cycle progression and cell survival. The unphosphorylated form cooperates with MAGI2 to suppress AKT1 activation. Dephosphorylates tyrosine-phosphorylated focal adhesion kinase and inhibits cell migration and integrin-mediated cell spreading and focal adhesion formation. Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue. The nuclear monoubiquitinated form possesses greater apoptotic potential, whereas the cytoplasmic nonubiquitinated form induces less tumor suppressive ability. In motile cells, suppresses the formation of lateral pseudopods and thereby promotes cell polarization and directed movement. ; [Isoform alpha]: Functional kinase, like isoform 1 it antagonizes the PI3K-AKT/PKB signaling pathway. Plays a role in mitochondrial energetic metabolism by promoting COX activity and ATP production, via collaboration with isoform 1 in increasing protein levels of PINK1.</p>		

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PTEN (ANT0026R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: Mouse testis Lane 3: Rat testis Lane 4: Hela

Predicted band size: 47kDa Observed band size: 56kDa

Human pancreas was stained with anti-PTEN (ANT0026R) rabbit antibody

Rat pancreas was stained with anti-PTEN (ANT0026R) rabbit antibody

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