

Product datasheet for **TA323700**

PTEN Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:500-1000, IHC: 1:50-100, IF: 1:100-200
Reactivity:	Human, Mouse, Rat
Modifications:	Phospho-specific
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Peptide sequence around phosphorylation site of threonine 380/382/383 (R-Y-S(p)-D-T(p)-T(p)-D-S) derived from Human PTEN.
Formulation:	PBS pH7.3, 0.05% NaN ₃ , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	54 kDa
Gene Name:	phosphatase and tensin homolog
Database Link:	NP_000305 Entrez Gene 19211 Mouse Entrez Gene 50557 Rat Entrez Gene 5728 Human P60484



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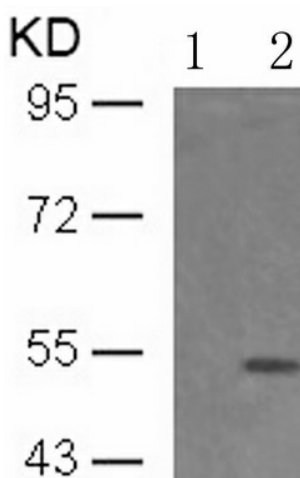
Background: Tumor suppressor. Acts as a dual-specificity protein phosphatase, dephosphorylating tyrosine-, serine- and threonine-phosphorylated proteins. Also acts as a lipid phosphatase, removing the phosphate in the D3 position of the inositol ring from phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 3,4-diphosphate, phosphatidylinositol 3-phosphate and inositol 1,3,4,5-tetrakisphosphate with order of substrate preference in vitro $\text{PtdIns}(3,4,5)\text{P}_3 > \text{PtdIns}(3,4)\text{P}_2 > \text{PtdIns}3\text{P} > \text{Ins}(1,3,4,5)\text{P}_4$. 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 AIP1 to suppress AKT1 activation. Dephosphorylates tyrosine-phosphorylated focal adhesion kinase and inhibits cell migration and integrin-mediated cell spreading and focal adhesion formation. May be a negative regulator of insulin signaling and glucose metabolism in adipose tissue.

Synonyms: 10q23del; BZS; CWS1; DEC; GLM2; MHAM; MMAC1; PTEN1; TEP1

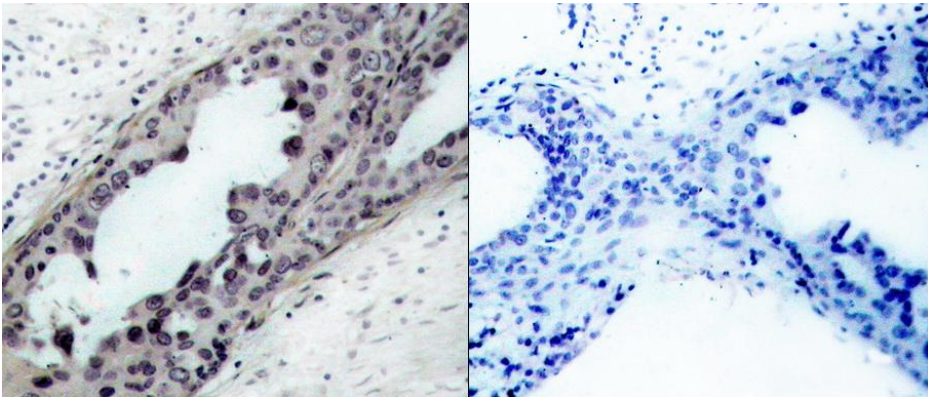
Protein Families: Druggable Genome, Phosphatase

Protein Pathways: Endometrial cancer, Focal adhesion, Glioma, Inositol phosphate metabolism, Melanoma, p53 signaling pathway, Pathways in cancer, Phosphatidylinositol signaling system, Prostate cancer, Small cell lung cancer, Tight junction

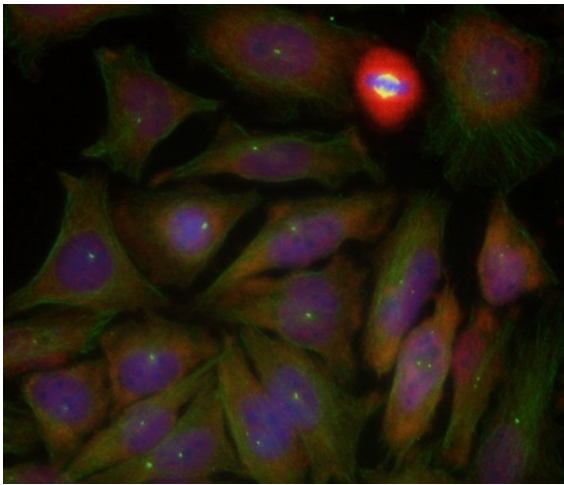
Product images:



Predicted band size: 54 kDa. Positive control: HeLa cells lysate. Recommended dilution: 1/ 500-1000. (Gel: 10%SDS-PAGE Lane 1: Treated with the peptide Lane 2: HeLa cells lysate Lysates: 30 ug per lane Primary antibody: 1/500 dilution Secondary antibody: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution Exposure time: 1 minute)



Predicted cell location: Cytoplasm; Nucleus.
Positive control: Human breast carcinoma tissue.
Recommended dilution: 1/ 50-100 The image on the left is immunohistochemistry of paraffin-embedded human breast carcinoma tissue using PTEN (Phospho-Ser380/Thr382/Thr383) antibody at dilution 1/50, on the right is treated with the synthetic peptide. (Original magnification: x200)



Predicted cell location: Cytoplasm; Nucleus.
Positive control: HeLa cells. Recommended dilution: 1/ 100-200 The image is immunofluorescence of methanol-fixed HeLa cells using PTEN (Phospho-Ser380/Thr382/Thr383) antibody at dilution 1/100. (Original magnification: x200)