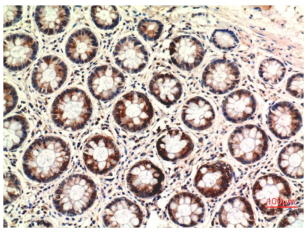
PTEN (7H2) Mouse mAb

db6563 **Package : 50μL 100μL**

Product Name : PTEN (7H2) Mouse mAb
Cat.No.: db6563
Synonyms : BZS;MHAM;MMAC1;TEP1;phosphatase and tensin homolog
Application : IHC-P
Reactivity : Human
Host species : Mouse

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 PtdIns(3,4,5)P3 > PtdIns(3,4)P2 > PtdIns3P > Ins(1,3,4,5)P4 (PubMed/26504226). 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. 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.
Immunogen	Synthetic peptide conjugated to KLH
Gene ID	5728
Swiss Prot	P60484
Synonyms	BZS;MHAM;MMAC1;TEP1;phosphatase and tensin homolog
Reactivity	Human
Application	IHC-P
Recommended dilution	IHC: 1:50-1:100

Calculated MW	54 kDa
Host species	Mouse
Clonality	Monoclonal
Clonality No.	7H2-6G9-6H5
Isotype	IgG1
Purity	Affinity Purification
Conjugation	Un-conjugated
Storage Stability	Store at -20°C. Supplied in PBS, 50% Glycerol(pH 7.3), 0.02% sodium azide and 0.5% BSA . Stable for 12 months from date of receipt.



Immunohistochemistry analysis of paraffin-embedded Human Colon Carcinoma Tissue using PTEN (7H2) antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.