



PTEN blocking peptide (CDBP5966)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded 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. [provided by RefSeq, Jul 2008]
Conjugate	Unconjugated
Applications	Used as a blocking peptide in immunoblotting applications.
Format	Liquid
Concentration	200 µg/mL
Size	0.05 mg
Preservative	None
Storage	-20°C

GENE INFORMATION

Gene Name	PTEN phosphatase and tensin homolog [Homo sapiens (human)]
Official Symbol	PTEN
Synonyms	PTEN; phosphatase and tensin homolog; BZS; DEC; CWS1; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity

protein phosphatase PTEN; mitochondrial PTENalpha; phosphatase and tensin-like protein; mutated in multiple advanced cancers 1; mitochondrial phosphatase and tensin protein alpha; MMAC1 phosphatase and tensin homolog deleted on chromosome 10; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN

Entrez Gene ID	5728
mRNA Refseq	NM_000314
Protein Refseq	NP_000305
UniProt ID	P60484
Pathway	3-phosphoinositide degradation; Adaptive Immune System; Androgen receptor signaling pathway; BCR signaling pathway; Class I PI3K signaling events; Constitutive PI3K/AKT Signaling in Cancer; D-myo-inositol (1; DAP12 interactions
Function	PDZ domain binding; anaphase-promoting complex binding; enzyme binding; inositol-1,3,4,5-tetrakisphosphate 3-phosphatase activity; inositol-1,3,4,5-tetrakisphosphate 3-phosphatase activity; lipid binding; magnesium ion binding; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity; phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity; phosphatidylinositol-3,4-bisphosphate 3-phosphatase activity; phosphatidylinositol-3,4-bisphosphate 3-phosphatase activity; phosphatidylinositol-3-phosphatase activity; phosphoprotein phosphatase activity; platelet-derived growth factor receptor binding; protein binding; protein kinase binding; protein serine/threonine phosphatase activity; protein tyrosine phosphatase activity; protein tyrosine/serine/threonine phosphatase activity