



PTEN blocking peptide (DAG-P1891)

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]
Specificity	Expressed at a relatively high level in all adult tissues, including heart, brain, placenta, lung, liver, muscle, kidney and pancreas.
Conjugate	Unconjugated
Applications	BL
Sequence Similarities	Contains 1 C2 tensin-type domain. Contains 1 phosphatase tensin-type domain.
Format	Liquid
Buffer	Preservative: 0.1% Sodium Azide Constituents: PBS, BSA
Preservative	0.1% Sodium Azide
Storage	Store at +4°C. Do not freeze. Preservative: 0.1% Sodium Azide Constituents: PBS, BSA

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; phosphatase and tensin-like protein; mutated in multiple advanced cancers 1; 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_000314.4
Protein Refseq	NP_000305.3
UniProt ID	F6KD01
Chromosome Location	10q23.3
Pathway	3-phosphoinositide degradation, organism-specific biosystem; 3-phosphoinositide degradation, conserved biosystem; Adaptive Immune System, organism-specific biosystem; Androgen receptor signaling pathway, organism-specific biosystem; BCR signaling pathway, organism-specific biosystem; Class I PI3K signaling events, organism-specific biosystem; Constitutive PI3K/AKT Signaling in Cancer, organism-specific biosystem; D-myo-inositol (1,3,4)-trisphosphate biosynthesis, organism-specific biosystem; D-m
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-
