Phospho-PTEN (Y240) Antibody Blocking Peptide

PRODUCT OVERVIEW

Product Name	PTEN, Blocking Peptide
Full Product Name	Phospho-PTEN (Y240) Antibody Blocking Peptide
Product Gene Name	PTEN blocking peptide
Product Synonym Names	Phosphatidylinositol 3;5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN; Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog; PTEN; MMAC1; TEP1
Form/Format	Lyophilized with 100% acetonitrile and is supplied as a powder.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
OMIM	137800
Reconstitution	Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Related Product Information for PTEN blocking peptide	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.
Other Notes	Small volumes of PTEN blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PTEN purchase	MBS9231540 is a blocking peptide targeting PTEN. Also known as Phospho-PTEN (Y240) Antibody Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTEN. It may not necessarily be applicable to this product.

NCBI GI #	73765544
NCBI GeneID	5728
NCBI Accession #	NP_000305.3
UniProt Primary Accession #	P60484
UniProt Secondary Accession #	O08586
UniProt Related Accession #	P60484
GenBank Nucleotide #	NM_000314.7
NCBI Official Full Name	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN isoform PTEN
NCBI Official Synonym Full Names	phosphatase and tensin homolog
NCBI Official Symbol	PTEN
NCBI Official Synonym Symbols	BZS; DEC; CWS1; GLM2; MHAM; TEP1; MMAC1; PTEN1; 10q23del; PTENbeta
UniProt Protein Name	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN

UniProt Synonym Protein Names	Mutated in multiple advanced cancers 1; Phosphatase and tensin homolog
Protein Family	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase
UniProt Gene Name	PTEN
UniProt Synonym Gene Names	MMAC1; TEP1
UniProt Entry Name	PTEN_HUMAN
NCBI Protein Information	phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN
NCBI Summary for PTEN	This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded by 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. The use of a non-canonical (CUG) upstream initiation site produces a longer isoform that initiates translation with a leucine, and is thought to be preferentially associated with the mitochondrial inner membrane. This longer isoform may help regulate energy metabolism in the mitochondria. A pseudogene of this gene is found on chromosome 9. Alternative splicing and the use of multiple translation start codons results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Feb 2015]
Research Articles on PTEN	**1.** inflammatory state of adipose tissue is not affected by the anti-inflammatory response of the A2a-adenosine system and miR-221/PTEN
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