ENPP2 Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	ENPP2, Blocking Peptide
Full Product Name	ENPP2 Peptide - N-terminal region
Product Gene Name	ENPP2 blocking peptide
Product Synonym Gene Name	ATX; ATX-X; FLJ26803; LysoPLD; NPP2; PD-IALPHA; PDNP2; AUTOTAXIN
Sequence	YTLATGLYPE SHGIVGNSMY DPVFDATFHL RGREKFNHRW WGGQPLWITA
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	ENPP2 peptide (MBS3232551) is used for blocking the activity of ENPP2 antibody (MBS3207586)
Molecular Weight	95kDa
OMIM	601060
Product Categories/Family for ENPP2 blocking peptide	Peptide
Applications Tested/Suitable for ENPP2 blocking peptide	Western Blot (WB)
Related Product Information for ENPP2 blocking peptide	This is a synthetic peptide designed for use in combination with anti-ENPP2 Antibody, made Target Description: The protein encoded by this gene functions as both a phosphodiesterase, which cleaves phosphodiester bonds at the 5' end of oligonucleotides, and a phospholipase, which catalyzes production of lysophosphatidic acid (LPA) in extracellular fluids. LPA evokes growth factor-like responses including stimulation of cell proliferation and chemotaxis. This gene product stimulates the motility of tumor cells and has angiogenic properties, and its expression is upregulated in several kinds of carcinomas. The gene product is secreted and further processed to make the biologically active form. Several alternatively spliced transcript variants encoding different isoforms have been identified.
Other Notes	Small volumes of ENPP2 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 ENPP2 purchase	MBS3232551 is a blocking peptide targeting ENPP2. Also known as ENPP2 Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ENPP2. It may not necessarily be applicable to this product.

NCBI GI #	91823602
NCBI GeneID	5168
NCBI Accession #	NP_001035181
UniProt Primary Accession #	Q13822
UniProt Related Accession #	Q13822

GenBank Nucleotide #	NM_001040092
NCBI Official Full Name	ectonucleotide pyrophosphatase/phosphodiesterase family member 2 isoform 2 preproprotein
NCBI Official Synonym Full Names	ectonucleotide pyrophosphatase/phosphodiesterase 2
NCBI Official Symbol	ENPP2
NCBI Official Synonym Symbols	ATX; NPP2; ATX-X; PDNP2; LysoPLD; AUTOTAXIN; PD-IALPHA
UniProt Protein Name	Ectonucleotide pyrophosphatase/phosphodiesterase family member 2
UniProt Synonym Protein Names	Autotaxin; Extracellular lysophospholipase D; LysoPLD
Protein Family	Ectonucleotide pyrophosphatase/phosphodiesterase family
UniProt Gene Name	ENPP2
UniProt Synonym Gene Names	ATX; PDNP2; E-NPP 2; LysoPLD
UniProt Entry Name	ENPP2_HUMAN
NCBI Protein Information	ectonucleotide pyrophosphatase/phosphodiesterase family member 2
NCBI Summary for ENPP2	The protein encoded by this gene functions as both a phosphodiesterase, which cleaves phosphodiester bonds at the 5' end of oligonucleotides, and a phospholipase, which catalyzes production of lysophosphatidic acid (LPA) in extracellular fluids. LPA evokes growth factor-like responses including stimulation of cell proliferation and chemotaxis. This gene product stimulates the motility of tumor cells and has angiogenic properties, and its expression is upregulated in several kinds of carcinomas. The gene product is secreted and further processed to make the biologically active form. Several alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Aug 2008]
UniProt Comments for ENPP2	ENPP2: Hydrolyzes lysophospholipids to produce lysophosphatidic acid (LPA) in extracellular fluids. Major substrate is lysophosphatidylcholine. Also can act on sphingosylphosphphorylcholine producing sphingosine-1-phosphate, a modulator of cell motility. Can hydrolyze, in vitro, bis-pNPP, to some extent pNP-TMP, and barely ATP. Involved in several motility- related processes such as angiogenesis and neurite outgrowth. Acts as an angiogenic factor by stimulating migration of smooth muscle cells and microtubule formation. Stimulates migration of melanoma cells, probably via a pertussis toxin-sensitive G protein. May have a role in induction of parturition. Possible involvement in cell proliferation and adipose tissue development. Tumor cell motility-stimulating factor. Belongs to the nucleotide pyrophosphatase/phosphodiesterase family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Lipid Metabolism - ether lipid; Phosphodiesterase; Secreted, signal peptide; Secreted; Motility/polarity/chemotaxis; EC 3.1.4.39 Chromosomal Location of Human Ortholog: 8q24.1 Cellular Component: extracellular space; integral to plasma membrane; plasma membrane Molecular Function: nucleotide diphosphatase activity; phosphodiesterase I activity; nucleic acid binding; hydrolase activity; zinc ion binding; calcium ion binding; transcription factor binding; scavenger receptor activity; alkylglycerophosphoethanolamine phosphodiesterase activity; polysaccharide binding; lysophospholipase activity Biological Process: G-protein coupled receptor protein signaling pathway; receptor-mediated endocytosis; phospholipid catabolic process; immune response; cell motility; chemotaxis; regulation of angiogenesis; phosphate metabolic process; regulation of cell migration
Research Articles on ENPP2	**1.** In the presence of LPC, the cell motile activity of PANC-R9 cells was markedly stimulated. In contrast, LPC did not affect the cell motile activity of PANC-1 cells. PANC-R9 cell motility was inhibited by an ATX inhibitor, PF-8380. These results suggest that LPA signaling via LPA1 is a potent molecular target for the regulation of tumor progression in PANC-1 cells.
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