

# **ENPP2 Antibody (Center K416) Blocking Peptide**

Synthetic peptide Catalog # BP2854c

# **Specification**

# **ENPP2 Antibody (Center K416) Blocking Peptide - Product Information**

Primary Accession

013822

# ENPP2 Antibody (Center K416) Blocking Peptide - Additional Information

### **Gene ID 5168**

#### **Other Names**

Ectonucleotide pyrophosphatase/phosphodiesterase family member 2, E-NPP 2, Autotaxin, Extracellular lysophospholipase D, LysoPLD, ENPP2, ATX, PDNP2

# **Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/products/AP2854c>AP2854c</a> was selected from the Center region of human ENPP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### ENPP2 Antibody (Center K416) Blocking Peptide - Protein Information

### Name ENPP2

# **Function**

Hydrolyzes lysophospholipids to produce the signaling molecule lysophosphatidic acid (LPA) in extracellular fluids (PubMed:<a href="http://www.uniprot.org/citations/15769751" target="\_blank">15769751</a>, PubMed:<a href="http://www.uniprot.org/citations/26371182" target="\_blank">26371182</a>, PubMed:<a href="http://www.uniprot.org/citations/27754931" target="\_blank">27754931</a>, PubMed:<a href="http://www.uniprot.org/citations/14500380" target="\_blank">14500380</a>, PubMed:<a href="http://www.uniprot.org/citations/12354767" target="\_blank">12354767</a>). Major substrate is lysophosphatidylcholine (PubMed:<a href="http://www.uniprot.org/citations/12176993" target="\_blank">12176993</a>, PubMed:<a href="http://www.uniprot.org/citations/27754931" target="\_blank">27754931</a>, PubMed:<a href="http://www.uniprot.org/citations/14500380" target="\_blank">14500380</a>, PubMed:<a href="http://www.uniprot.org/citations/14500380" target="\_blank">14500380</a>, PubMed:<a href="http://www.uniprot.org/citations/14500380" target="\_blank">14500380</a>, Can also act on sphingosylphosphorylcholine producing sphingosine-1-phosphate, a modulator of cell motility



(PubMed:<a href="http://www.uniprot.org/citations/14500380" target=" blank">14500380</a>). Can hydrolyze, in vitro, bis-pNPP, to some extent pNP-TMP, and barely ATP (PubMed: <a href="http://www.uniprot.org/citations/15769751" target="\_blank">15769751</a>, PubMed:<a href="http://www.uniprot.org/citations/12176993" target="\_blank">12176993</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/11559573" target=" blank">11559573</a>). Stimulates migration of melanoma cells, probably via a pertussis toxin-sensitive G protein (PubMed:<a href="http://www.uniprot.org/citations/1733949" target=" blank">1733949</a>). May have a role in induction of parturition (PubMed:<a href="http://www.uniprot.org/citations/12176993" target=" blank">12176993</a>). Possible involvement in cell proliferation and adipose tissue development (Probable). Tumor cell motility-stimulating factor (PubMed: <a href="http://www.uniprot.org/citations/1733949" target=" blank">1733949</a>, PubMed:<a href="http://www.uniprot.org/citations/11559573" target="blank">11559573</a>). Required for LPA production in activated platelets, cleaves the sn-1 lysophospholipids to generate sn-1 lysophosphatidic acids containing predominantly 18:2 and 20:4 fatty acids (PubMed:<a href="http://www.uniprot.org/citations/21393252" target=" blank">21393252</a>). Shows a preference for the sn-1 to the sn-2 isomer of 1-O-alkyl-sn-glycero-3- phosphocholine (lyso-PAF) (PubMed: <a href="http://www.uniprot.org/citations/21393252" target=" blank">21393252</a>).

# Cellular Location Secreted

#### **Tissue Location**

Detected in blood plasma (at protein level) (PubMed:12176993, PubMed:26371182). Predominantly expressed in brain, placenta, ovary, and small intestine. Expressed in a number of carcinomas such as hepatocellular and prostate carcinoma, neuroblastoma and non-small-cell lung cancer. Expressed in body fluids such as plasma, cerebral spinal fluid (CSF), saliva, follicular and amniotic fluids. Not detected in leukocytes. Isoform 1 is more highly expressed in peripheral tissues than in the central nervous system (CNS) Adipocytes only express isoform 1. Isoform 3 is more highly expressed in the brain than in peripheral tissues.

# **ENPP2 Antibody (Center K416) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

# • Blocking Peptides

ENPP2 Antibody (Center K416) Blocking Peptide - Images

# ENPP2 Antibody (Center K416) Blocking Peptide - Background

ENPP2 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 protein stimulates the motility of tumor cells and has angiogenic properties, and its expression is upregulated in several kinds of carcinomas. This protein is secreted and further processed to make the biologically active form.

# **ENPP2 Antibody (Center K416) Blocking Peptide - References**

Kawagoe H., Soma O., Goji J., Nishimura N., Narita M., Genomics 30:380-384(1995)Nam S.W., Clair T., Kim Y.S., McMarlin A., Cancer Res. 61:6938-6944(2001)The MGC Project Team Genome Res. 14:2121-2127(2004)