

Rabbit anti-Human ENPP2 Polyclonal Antibody | anti-ENPP2 antibody

ENPP2 Antibody (Center)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA28662	Rabbit	Human	Western Blot, ELISA, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

ENPP2; Polyclonal Antibody; ENPP2 Antibody (Center); Ectonucleotide pyrophosphatase/phosphodiesterase family member 2; E-NPP 2; Autotaxin; Extracellular lysophospholipase D; LysoPLD; ATX; PDNP2; anti-ENPP2 antibody

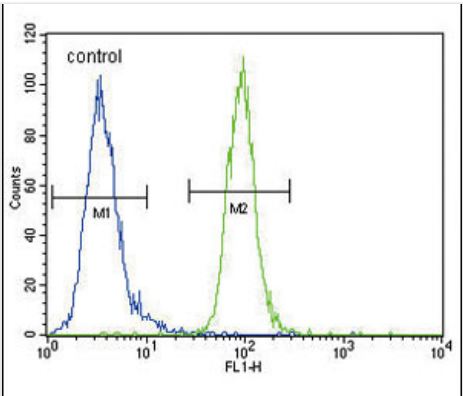
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	This ENPP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 377-406 amino acids from the Central region of human ENPP2.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Length	888
Applicable Applications for anti-ENPP2 antibody	WB (Western Blot), ELISA, FCM/FACS (Flow Cytometry)
Application Notes	WB~~1:2000 FC~~1:10~50
Antigen Region	377-406
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.
Function	Hydrolyzes lysophospholipids to produce the signaling molecule lysophosphatidic acid (LPA) in extracellular fluids (PubMed:15769751, PubMed:26371182, PubMed:27754931, PubMed:14500380, PubMed:12354767,). Major substrate is lysophosphatidylcholine (PubMed:12176993, PubMed:27754931, PubMed:14500380). Also can act on sphingosylphosphorylcholine producing sphingosine-1-phosphate, a modulator of cell motility (PubMed:14500380). Can hydrolyze, in vitro, bis-pNPP, to some extent pNP-TMP, and barely ATP (PubMed:15769751, PubMed:12176993). 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:11559573). Stimulates migration of melanoma cells,probably via a pertussis toxin-sensitive G protein (PubMed:1733949). May have a role in induction of parturition (PubMed:12176993). Possible involvement in cell proliferation and adipose tissue development (Probable). Tumor cell motility-stimulating factor (PubMed:1733949, PubMed:11559573). 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:21393252). Shows a preference for the sn-1 to the sn-2 isomer of 1-O-alkyl-sn-glycero-3- phosphocholine (lyso-PAF) (PubMed:21393252).
Cellular Location	Secreted

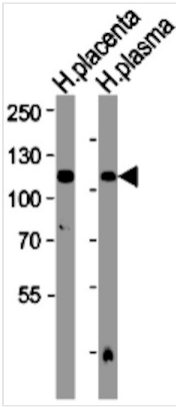
Preparation and Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

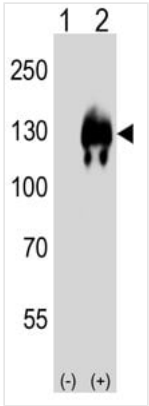
IMAGES



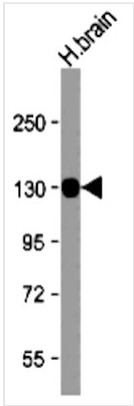
FCM (Flow Cytometry)
ENPP2 Antibody (Center)(AAA28662) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



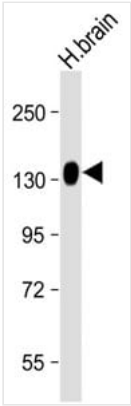
WB (Western Blot)
Western blot analysis of lysates from human placenta and plasma tissue lysate (from left to right), using ENPP2 Antibody (Center)(Cat. #AAA28662). AAA28662 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



WB (Western Blot)
Western blot analysis of (arrow) using rabbit polyclonal ENPP2 Antibody (Center)(AAA28662). 293T cell lysates either nontransfected (Lane 1) or transiently transfected (Lane 2) with the gene.



WB (Western Blot)
Anti-ENPP2 Antibody (Center) at 1:2000 dilution + Human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 99 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



WB (Western Blot)
Anti-ENPP2 Antibody (Center) at 1:2000 dilution + Human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 99 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-ENPP2 antibody	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. The protein is secreted and further processed to make the biologically active form.
Product Categories/Family for anti-ENPP2 antibody	Crown Antibodies; Cancer; Cardiovascular; Metabolism; Neuroscience; Signal Transduction
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)

NCBI AND UNIPROT INFORMATION

NCBI GI #	91823602
NCBI GeneID	5168
NCBI Accession #	NP_001035181.1; NP_001124335.1; NP_006200.3
NCBI GenBank Nucleotide #	NM_001040092.2
UniProt Accession #	Q13822; Q13827; Q14555; Q15117; Q9UCQ8; Q9UCR0; Q9UCR1; Q9UCR2; Q9UCR3; Q9UCR4; A8UHA1; E9PHP7
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
NCBI Protein Information	ectonucleotide pyrophosphatase/phosphodiesterase family member 2
UniProt Protein Name	Ectonucleotide pyrophosphatase/phosphodiesterase family member 2
UniProt Gene Name	ENPP2
UniProt Synonym Gene Names	ATX; PDNP2; E-NPP 2; LysoPLD
UniProt Entry Name	ENPP2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.