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ENPP3 Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19749b

Product Information

Application	WB, E
Primary Accession	O14638
Other Accession	NP_005012.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24586
Calculated MW	100124
Antigen Region	814-843

Additional Information

Gene ID	5169
Other Names	Ectonucleotide pyrophosphatase/phosphodiesterase family member 3, E-NPP 3, Phosphodiesterase I beta, PD-Ibeta, Phosphodiesterase I/nucleotide pyrophosphatase 3, CD203c, Alkaline phosphodiesterase I, Nucleotide pyrophosphatase, NPPase, ENPP3, PDNP3
Target/Specificity	This ENPP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 814-843 amino acids from the C-terminal region of human ENPP3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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.
Precautions	ENPP3 Antibody(C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENPP3 (HGNC:3358)

Function	Hydrolase that metabolizes extracellular nucleotides, including ATP, GTP, UTP and CTP (PubMed:29717535, PubMed:9344668). Also hydrolyzes extracellular 2',3'-cGAMP (cyclic GMP-AMP), a second messenger that activates TMEM173/STING and triggers type-I interferon production, and is therefore involved in the regulation of innate immune response (PubMed:38749434). 2',3'-cGAMP appears to be further processed to GMP, AMP and inorganic phosphate (PubMed:38749434). Limits mast cells and basophils response during inflammation and during the chronic phases of allergic responses by eliminating extracellular ATP, a signaling molecule activating these cells in an autocrine manner. Metabolizes extracellular ATP in the lumen of the small intestine, and thereby prevents ATP-induced apoptosis of intestinal plasmacytoid dendritic cells (By similarity). Has a broad specificity and can also hydrolyze UDP-GlcNAc into UMP and GlcNAc-1-phosphate and potentially several other intracellular nucleotide sugars, including UDP-GalNAc, CMP-NeuAc, GDP-Fuc, and UDP-GlcA. Thereby, could modulate glycan biosynthesis and protein glycosylation (By similarity). Can hydrolyze extracellular dinucleoside polyphosphates, including the vasoactive adenosine polyphosphates as well (PubMed:12846830). In addition, displays an alkaline phosphodiesterase activity in vitro (PubMed:11342463).
Cellular Location	Cell membrane; Single-pass type II membrane protein. Apical cell membrane; Single-pass type II membrane protein. Secreted Note=Detected at the cell surface of basophils (PubMed:11342463) Detected at the apical plasma membrane of bile duct cells (PubMed:15072822). Located to the apical surface in intestinal and kidney epithelial cells. Secreted in serum, and in lumen of epithelial cells.
Tissue Location	Detected on bile ducts in liver, and in blood serum (at protein level) (PubMed:15072822). Detected in prostate and uterus (PubMed:9344668). Detected on basophils, but not neutrophils (PubMed:11342463).

Background

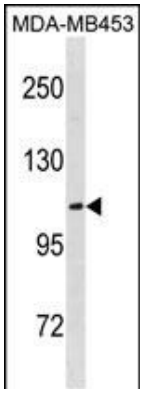
The protein encoded by this gene belongs to a series of ectoenzymes that are involved in hydrolysis of extracellular nucleotides. These ectoenzymes possess ATPase and ATP pyrophosphatase activities and are type II transmembrane proteins. Expression of the related rat mRNA has been found in a subset of immature glial cells and in the alimentary tract. The corresponding rat protein has been detected in the pancreas, small intestine, colon, and liver. The human mRNA is expressed in glioma cells, prostate, and uterus. Expression of the human protein has been detected in uterus, basophils, and mast cells. [provided by RefSeq].

References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Ono, E., et al. J. Allergy Clin. Immunol. 125(2):483-489(2010)
Wolanczyk-Medrala, A., et al. Ann Agric Environ Med 16(2):301-304(2009)
Chirumbolo, S., et al. Inflamm. Res. 58(11):755-764(2009)
Ocmant, A., et al. J. Immunol. Methods 320 (1-2), 40-48 (2007) :

Images

ENPP3 Antibody (C-term) (Cat. #AP19749b) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the ENPP3 antibody detected the ENPP3 protein (arrow).



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.