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Anti-ENPP1 Antibody (C-Terminus)

Goat Anti Human Polyclonal Antibody
Catalog # ALS17456

Product Information

Application	WB, IHC-P
Primary Accession	P22413
Predicted	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	104924
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	5167
Alias Symbol	ENPP1
Other Names	ENPP1, Alkaline phosphodiesterase I, ARHR2, E-NPP 1, Ly-41 antigen, NPP1, NPPS, PC1, PDNP1, Alkaline phosphodiesterase 1, M6S1, PCA1, Pc-1
Target/Specificity	ENPP1 Antibody detects human ENPP1.
Reconstitution & Storage	Lyophilized from PBS, pH 7.4, 0.02% sodium azide. Store lyophilized at -20°C. The reconstituted product can be stored for short term at 4 °C or long term at -20 °C or below. Avoid freeze/thaw cycles.
Precautions	Anti-ENPP1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENPP1 (HGNC:3356)
Function	Nucleotide pyrophosphatase that generates diphosphate (PPi) and functions in bone mineralization and soft tissue calcification by regulating pyrophosphate levels (By similarity). PPi inhibits bone mineralization and soft tissue calcification by binding to nascent hydroxyapatite crystals, thereby preventing further growth of these crystals (PubMed:11004006). Preferentially hydrolyzes ATP, but can also hydrolyze other nucleoside 5' triphosphates such as GTP, CTP and UTP to their corresponding monophosphates with release of pyrophosphate, as well as diadenosine polyphosphates, and also 3',5'-cAMP to AMP (PubMed:25344812, PubMed:27467858, PubMed:28011303, PubMed:35147247, PubMed:8001561). May also be involved in the regulation of the availability of nucleotide sugars in the endoplasmic reticulum and Golgi, and the regulation of purinergic signaling (PubMed:27467858,

PubMed:8001561). Inhibits ectopic joint calcification and maintains articular chondrocytes by repressing hedgehog signaling; it is however unclear whether hedgehog inhibition is direct or indirect (By similarity). Appears to modulate insulin sensitivity and function (PubMed:10615944). Also involved in melanogenesis (PubMed:28964717). Also able to hydrolyze 2',3'-cGAMP (cyclic GMP-AMP), a second messenger that activates TMEM173/STING and triggers type-I interferon production (PubMed:25344812). 2',3'-cGAMP degradation takes place in the lumen or extracellular space, and not in the cytosol where it is produced; the role of 2',3'-cGAMP hydrolysis is therefore unclear (PubMed:25344812). Not able to hydrolyze the 2',3'-cGAMP linkage isomer 3'-3'-cGAMP (PubMed:25344812).

Cellular Location

[Ectonucleotide pyrophosphatase/phosphodiesterase family member 1]: Cell membrane; Single-pass type II membrane protein. Basolateral cell membrane; Single-pass type II membrane protein Note=Targeted to the basolateral membrane in polarized epithelial cells and in hepatocytes, and to matrix vesicles in osteoblasts (PubMed:11598187). In bile duct cells and cancer cells, located to the apical cytoplasmic side (PubMed:11598187)

Tissue Location

Expressed in plasma cells and also in a number of non-lymphoid tissues, including the distal convoluted tubule of the kidney, chondrocytes and epididymis (PubMed:9344668). Expressed in melanocytes but not in keratinocytes (PubMed:28964717)

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