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ENPP1 Antibody (C-Terminus)

Goat Polyclonal Antibody
Catalog # ALS12222

Specification

ENPP1 Antibody (C-Terminus) - Product Information

Application	**IHC-P, E**
Primary Accession	P22413
Reactivity	**Human, Rabbit**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**105kDa KDa**
Dilution	**IHC-P~~N/A** **E~~N/A**

ENPP1 Antibody (C-Terminus) - Additional Information

Gene ID 5167

Other Names
Ectonucleotide pyrophosphatase/phosphodiesterase family member 1, E-NPP 1, Membrane component chromosome 6 surface marker 1, Phosphodiesterase I/nucleotide pyrophosphatase 1, Plasma-cell membrane glycoprotein PC-1, Alkaline phosphodiesterase I, 3.1.4.1, Nucleotide pyrophosphatase, NPPase, 3.6.1.9, ENPP1, M6S1, NPPS, PC1, PDNP1

Target/Specificity
Human ENPP1.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
ENPP1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

ENPP1 Antibody (C-Terminus) - 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:<a

href="http://www.uniprot.org/citations/25344812" target="_blank">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)

ENPP1 Antibody (C-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ENPP1 Antibody (C-Terminus) - Images

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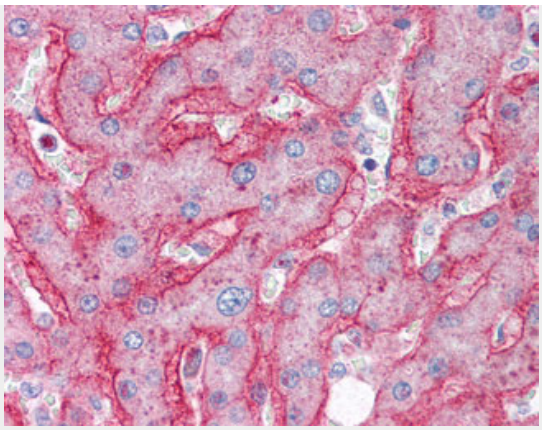
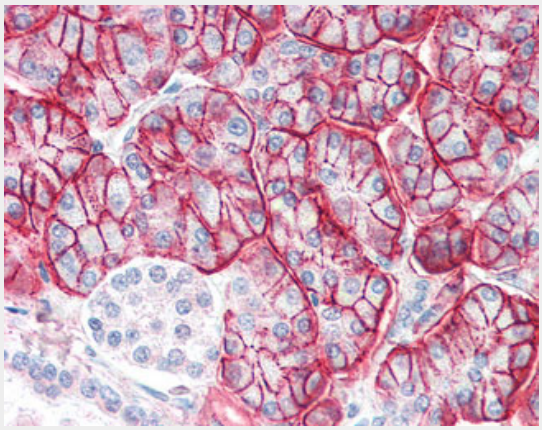


Anti-ENPP1 antibody IHC of human liver.



Anti-ENPP1 antibody IHC of human pancreas.

ENPP1 Antibody (C-Terminus) - Background

By generating PPi, plays a role in regulating pyrophosphate levels, and functions in bone mineralization and soft tissue calcification. PPi inhibits mineralization by binding to nascent hydroxyapatite (HA) crystals, thereby preventing further growth of these crystals. Preferentially hydrolyzes ATP, but can also hydrolyze other nucleoside 5' triphosphates such as GTP, CTP, TTP and UTP to their corresponding monophosphates with release of pyrophosphate and diadenosine polyphosphates, and also 3',5'-cAMP to AMP. 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. Appears to modulate insulin sensitivity and function.

ENPP1 Antibody (C-Terminus) - References

Buckley M.F.,et al.J. Biol. Chem. 265:17506-17511(1990).
Funakoshi I.,et al.Arch. Biochem. Biophys. 295:180-187(1992).
Bozzali M.,et al.Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
Mungall A.J.,et al.Nature 425:805-811(2003).
Pizzuti A.,et al.Diabetes 48:1881-1884(1999).