



href="http://www.uniprot.org/citations/28011303" target="\_blank">28011303</a>, PubMed:<a href="http://www.uniprot.org/citations/35147247" target="\_blank">35147247</a>). 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:<a href="http://www.uniprot.org/citations/27467858" target="\_blank">27467858</a>, PubMed:<a href="http://www.uniprot.org/citations/8001561" target="\_blank">8001561</a>). 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:<a href="http://www.uniprot.org/citations/10615944" target="\_blank">10615944</a>). Also involved in melanogenesis (PubMed:<a href="http://www.uniprot.org/citations/28964717" target="\_blank">28964717</a>). Also able to hydrolyze 2',3'-cGAMP (cyclic GMP-AMP), a second messenger that activates TMEM173/STING and triggers type-I interferon production (PubMed:<a href="http://www.uniprot.org/citations/25344812" target="\_blank">25344812</a>). 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:<a href="http://www.uniprot.org/citations/25344812" target="\_blank">25344812</a>). Not able to hydrolyze the 2',3'-cGAMP linkage isomer 3'-3'-cGAMP (PubMed:<a href="http://www.uniprot.org/citations/25344812" target="\_blank">25344812</a>).

### 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 Blocking Peptide(N-term) - Protocols

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

- [Blocking Peptides](#)

## ENPP1 Blocking Peptide(N-term) - Images

## ENPP1 Blocking Peptide(N-term) - Background

This gene is a member of the ecto-nucleotide pyrophosphatase/phosphodiesterase (ENPP) family. The encoded protein is a type II transmembrane glycoprotein comprising two identical disulfide-bonded subunits. This protein has broad specificity and cleaves a variety of substrates, including phosphodiester bonds of nucleotides and nucleotide sugars and pyrophosphate bonds of nucleotides and nucleotide sugars. This protein may function to hydrolyze nucleoside 5' triphosphates to their corresponding monophosphates and may also hydrolyze diadenosine polyphosphates. Mutations in this gene have been associated with 'idiopathic' infantile arterial calcification, ossification of the posterior longitudinal ligament of the spine (OPLL), and insulin resistance.

**ENPP1 Blocking Peptide(N-term) - References**

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