

Product datasheet for **TA336693**

ENPP1 Goat Polyclonal Antibody

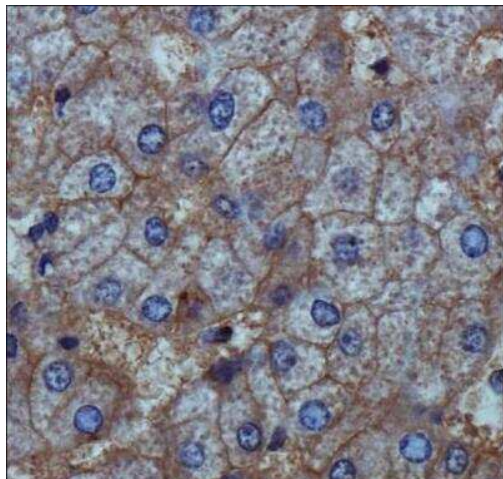
Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Immunohistochemistry, Western Blot: 1:1000, Peptide ELISA: 1:2000, Immunohistochemistry-Paraffin: 1:200
Reactivity:	Human
Host:	Goat
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to a C-terminal portion of the human ENPP1 protein (between residues 900-925) [UniProt P22413]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	140 kDa
Gene Name:	ectonucleotide pyrophosphatase/phosphodiesterase 1
Database Link:	NP_006199 Entrez Gene 5167 Human P22413

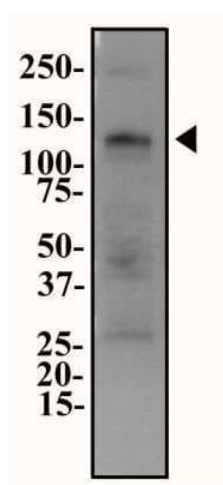


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Background:	ENPP1 (ectonucleotide pyrophosphatase/phosphodiesterase family member 1) is a type II transmembrane glycoprotein which is implicated in membrane surface ATP hydrolysis, regulation of pyrophosphate levels, bone mineralization as well as soft tissue calcification. ENPP1 negatively regulates bone mineralization by hydrolyzing extracellular nucleotide triphosphates (NTPs) to produce inorganic pyrophosphate (PPi, an inhibitor of mineralization), whereas tissue-nonspecific ALP positively regulates mineralization by hydrolyzing NTPs and PPi to produce extracellular concentrations of inorganic phosphate (Pi, a substrate for mineralization). ENPP1 is expressed on outer surfaces of mineralizing cells, such as osteoblasts and chondrocytes, and on the membranes of osteoblast- and chondrocyte-derived matrix vesicles. It also hydrolyzes other NTPs such as GTP, CTP, TTP, UTP etc. to their corresponding monophosphates with the release of PPi and diadenosine polyphosphates, and also 3',5'-cAMP to AMP, and may also regulate the availability of nucleotide sugars in ER/Golgi complex, as well as the regulation of purinergic signaling. ENPP1 binds directly to INSR for inhibiting insulin signaling and ENPP1's K173Q/ K121Q polymorphism is associated with insulin resistance, NIDDM, and obesity. Defective ENPP1 causes increased susceptibility for ossification of the posterior longitudinal ligament of spine (OPLL), arterial calcification of infancy, generalized, type 1 (GACI1), obesity/glucose intolerance/NIDDM, and rickets hypophosphatemic autosomal recessive type 2 (ARHR2).
Synonyms:	ARHR2; COLED; M6S1; NPP1; NPPS; PC-1; PCA1; PDNP1
Note:	This ENPP1 antibody is useful for Peptide ELISA, Western Blot and Immunohistochemistry-paraffin embedded sections. In Western blot a band was observed at ~130-150kDa in Human Liver and HepG2 lysates that was blocked by preincubation with the immunizing peptide. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, Nicotinate and nicotinamide metabolism, Pantothenate and CoA biosynthesis, Purine metabolism, Riboflavin metabolism, Starch and sucrose metabolism

Product images:

Immunohistochemistry-Paraffin: ENPP-1 Antibody TA336693 - ENPP1 Antibody TA336693 - ENPP1 antibody was tested in human liver using DAB with hematoxylin counterstain.



Western Blot: ENPP-1 Antibody TA336693 - Western blot analysis of ENPP-1 in HepG2 cell lysate at 2.0 ug/ml.