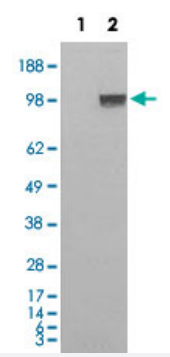
ENPP1 polyclonal antibody

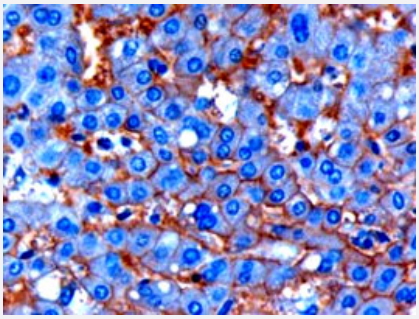
Catalog # PAB6879 Size 100 ug

Applications



Western Blot (Transfected lysate)

HEK293 overexpressing Human ENPP1 and probed with ENPP1 polyclonal antibody (Cat # PAB6879) (mock transfection in first lane) .



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

ENPP1 polyclonal antibody (Cat # PAB6879) (1 ug/mL) staining of paraffin embedded human liver. Microwaved antigen retrieval with citrate buffer pH 6, HRP-staining.

Specification

Product Description	Goat polyclonal antibody raised against synthetic peptide of ENPP1.
Immunogen	A synthetic peptide corresponding to C-terminus of human ENPP1.
Sequence	C-KTHLPTFSQED
Host	Goat
Theoretical MW (kDa)	105
Reactivity	Human

Form	Liquid
Purification	Antigen affinity purification
Concentration	0.5 mg/mL
Recommend Usage	ELISA (1:32000) Western blot (1-3 ug/mL) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1-2 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In Tris saline, pH 7.3 (0.5% BSA, 0.02% sodium azide)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Western Blot (Transfected lysate)

  HEK293 overexpressing Human ENPP1 and probed with ENPP1 polyclonal antibody (Cat # PAB6879) (mock transfection in first lane) .

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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- Enzyme-linked Immunoabsorbent Assay

Gene Info — ENPP1

Entrez GeneID	5167
Protein Accession#	NP_006199.2
Gene Name	ENPP1
Gene Alias	M6S1, NPP1, NPPS, PC-1, PCA1, PDNP1
Gene Description	ectonucleotide pyrophosphatase/phosphodiesterase 1
Omim ID	125853 173335 208000 601665 602475

Gene Ontology	Hyperlink
Gene Summary	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. [provided by RefSeq
Other Designations	Ly-41 antigen|OTTHUMP00000043194|alkaline phosphodiesterase 1|membrane component, chromosome 6, surface marker 1|phosphodiesterase I/nucleotide pyrophosphatase 1|plasma-cell membrane glycoprotein 1

Publication Reference

- Decreased levels of nucleotide pyrophosphatase phosphodiesterase 1 are associated with cartilage calcification in osteoarthritis and trigger osteoarthritic changes in mice.

  Bertrand J, Nitschke Y, Fuerst M, Hermann S, Schäfers M, Sherwood J, Nalesso G, Ruether W, Rutsch F, Dell'Accio F, Pap T.

  Annals of the Rheumatic Diseases 2012 Jul; 71(7):1249.

  Application: IHC, Human, Mouse , Human cartilage samples, Mouse knee joint sections

- Variants of ENPP1 are associated with childhood and adult obesity and increase the risk of glucose intolerance and type 2 diabetes.

  Meyre D, Bouatia-Naji N, Tounian A, Samson C, Lecoeur C, Vatin V, Ghoussaini M, Wachter C, Hercberg S, Charpentier G, Patsch W, Pattou F, Charles MA, Tounian P, Clement K, Jouret B, Weill J, Maddux BA, Goldfine ID, Walley A, Boutin P, Dina C, Froguel P.

  Nature Genetics 2005 Aug; 37(8):863.

Pathway

- Metabolic pathways
- Nicotinate and nicotinamide metabolism
- Pantothenate and CoA biosynthesis
- Purine metabolism
- Riboflavin metabolism
- Starch and sucrose metabolism

Disease

- Albuminuria
- Alzheimer disease
- Aortic Diseases
- Arteriosclerosis
- Atherosclerosis
- Body Weight
- Calcinosis
- Cardiovascular Diseases
- Chondrocalcinosis
- Coronary Artery Disease
- Coronary Disease
- Diabetes Complications
- Diabetes Mellitus
- Diabetic Nephropathies
- Disease Progression
- Edema
- Fatty Liver
- Genetic Predisposition to Disease
- Glomerulonephritis
- Glucose Intolerance
- Hepatitis C
- Hyperglycemia
- Hyperinsulinism
- Hyperlipidemias

- Hypertension
- Hypertriglyceridemia
- Hypertrophy
- Insulin Resistance
- Kidney Failure
- Metabolic Diseases
- Metabolic Syndrome X
- Myocardial Infarction
- Myocardial Ischemia
- Neoplasms
- Obesity
- Ossification of Posterior Longitudinal Ligament
- Osteoarthritis
- Osteoporosis
- Overweight
- Peripheral Vascular Diseases
- Polycystic Ovary Syndrome
- Pre-Eclampsia
- Proteinuria
- Psychotic Disorders
- Renal Insufficiency
- Schizophrenia
- Urinary Bladder Neoplasms
- Viremia
- Werner syndrome