Datasheet for ABIN7553820

ENPP1 Protein (AA 1-925) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	ENPP1
Protein Characteristics:	AA 1-925
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ENPP1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat ENPP1 Protein expressed in mammalien cells.
Sequence:	MERDGCAGGG SRGGEGGRAP REGPAGNGRD RGRSHAAEAP GDPQAAASLL APMDVGEEPL EKAARARTAK DPNTYKVLSL VLSVCVLTTI LGCIFGLKPS CAKEVKSCKG RCFERTFGNC RCDAACVELG NCCLDYQETC IEPEHIWTCN KFRCGEKRLT RSLCACSDDC KDKGDCCINY SSVCQGEKSW VEEPCESINE PQCPAGFETP PTLLFSLDGF RAEYLHTWGG LLPVISKLKK CGTYTKNMRP VYPTKTFPNH YSIVTGLYPE SHGIIDNKMY DPKMNASFSL KSKEKFNPEW YKGEPIWVTA KYQGLKSGTF FWPGSDVEIN GIFPDIYKMY NGSVPFEERI LAVLQWLQLP KDERPHFYTL YLEEPDSSGH SYGPVSSEVI KALQRVDGMV GMLMDGLKEL NLHRCLNLIL ISDHGMEQGS CKKYIYLNKY LGDVKNIKVI YGPAARLRPS DVPDKYYSFN YEGIARNLSC REPNQHFKPY LKHFLPKRLH FAKSDRIEPL TFYLDPQWQL ALNPSERKYC GSGFHGSDNV FSNMQALFVG YGPGFKHGIE ADTFENIEVY NLMCDLLNLT PAPNNGTHGS LNHLLKNPVY TPKHPKEVHP LVQCPFTRNP RDNLGCSCNP SILPIEDFQT QFNLTVAEEK IIKHETLPYG

Product Details

	RPRVLQKENT ICLLSQHQFM SGYSQDILMP LWTSYTVDRN DSFSTEDFSN CLYQDFRIPL SPVHKCSFYK NNTKVSYGFL SPPQLNKNSS GIYSEALLTT NIVPMYQSFQ VIWRYFHDTL LRKYAEERNG VNVVSGPVFD FDYDGRCDSL ENLRQKRRVI RNQEILIPTH FFIVLTSCKD TSQTPLHCEN LDTLAFILPH RTDNSESCVH GKHDSSWVEE LLMLHRARIT DVEHITGLSF YQQRKEPVSD ILKLKTHLPT FSQED **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	ENPP1
Alternative Name:	ENPP1 (ENPP1 Products)
Background:	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) [Cleaved into: Ectonucleotide pyrophosphatase/phosphodiesterase family member 1, secreted form] [Includes: Alkaline phosphodiesterase I (EC 3.1.4.1), Nucleotide pyrophosphatase (NPPase) (EC 3.6.1.9) (Nucleotide diphosphatase)],FUNCTION: Nucleotide pyrophosphatase that generates

Target Details

	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:27467858, PubMed:8001561, PubMed:25344812, PubMed:28011303, PubMed:35147247). 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). {ECO:0000250|UniProtKB:P06802, ECO:0000269|PubMed:10615944, ECO:0000269|PubMed:25344812, ECO:0000269|PubMed:27467858, ECO:0000269|PubMed:28011303, ECO:0000269|PubMed:28964717, ECO:0000269|PubMed:35147247, ECO:0000269|PubMed:8001561, ECO:0000305|PubMed:11004006}.
Molecular Weight:	104.9 kDa
UniProt:	P22413
Pathways:	Regulation of Carbohydrate Metabolic Process

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months