

ENPP3 Protein, Human (HEK293, His)

Cat. No.:	HY-P700410
Synonyms:	E-NPP 3; NPP3; PD-Ibeta; NPPase; ENPP3; PDNP3; CD203c; B10; gp130RB13-6
Species:	Human
Source:	HEK293
Accession:	O14638 (L48-I875)
Gene ID:	5169
Molecular Weight:	Approximately 116 kDa

PROPERTIES

AA Sequence

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LEKQGSCRRK  C FDASFRGLE  NCRCDVACKD  RGDCCWDFED
TCVESTRIWM  CNKFRCGETR  LEASLCSUSD  DCLQRKDCCA
DYKSVCQGET  SWLEENCDTA  QQSQCPEGFD  LPPVILFSMD
GFRAEYLYTW  DTLMPNINKL  KTCGIHSKYM  RAMYPTKTFP
NHYTIVTGLY  PESHGII DNN  MYDVNLNKNF  SLS SKEQNNP
AWWHGQPMWL  TAMYQGLKAA  TYFWPGSEVA  INGSFPSIYM
PYNGSVPFEE  RISTLLKWL D  LPKAERPRFY  TMYFEEPDS S
GHAGGPVSAR  VIKALQVVDH  AFGMLMEGLK  QRNLHNCVNI
ILLADHGMDQ  TYCNKMEYMT  DYFPRINFFY  MYEGPAPRIR
AHNIPHDFFS  FNSEEI VRNL  SCRKPDQHFK  PYLTPDLPKR
LHYAKNVRID  KVHLFVDQQW  LAVRSKSNTN  CGGGNHGYNN
EFRSMEAIFL  AHGPSFKEKT  EVEPFENIEV  YNLMCDLLRI
QPAPNNGTHG  SLNHLLKVPF  YEPSHAE EVS  KFSVCGFANP
LPTESLDCFC  PHLQNSTQLE  QVNQMLNLTQ  EEITATVKVN
LPFGRPRVLQ  KNVDHCLLYH  REYVSGFGKA  MRMPMWSSYT
VPQLGDT SPL  PPTVPDCLRA  DVRVPPSESQ  KCSFY LADKN
ITHGFLYPPA  SNRTSDSQYD  ALITSNLVPM  YEEFRKMWDY
FHSVLLIKHA  TERNGVNVVS  GPIFDYNYDG  HFDAPDEITK
HLANTDVPI P  THYFVVL TSC  KNKSHTPENC  PGWLDVLPFI
IPHRPTNVES  CPEGKPEALW  VEERFTHAIA  RVRDVELLTG
LDFYQDKVQP  VSEILQLKTY  LPTFETTI

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Biological Activity

Measured by its binding ability in a functional ELISA. Immobilized Human ENPP3 at 2 µg/mL can bind anti-ENPP3 recombinant antibody, the EC₅₀ is ≤ 2.868 ng/mL.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

ENPP3, a hydrolase, plays a pivotal role in metabolizing extracellular nucleotides, encompassing ATP, GTP, UTP, and CTP. This enzymatic activity is instrumental in modulating immune responses, particularly in the regulation of mast cell and basophil reactions during inflammation and chronic allergic phases. ENPP3 achieves this by eliminating extracellular ATP, a signaling molecule that activates basophils and mast cells, subsequently triggering the release of inflammatory cytokines. Furthermore, within the small intestine's lumen, ENPP3 metabolizes extracellular ATP, effectively preventing ATP-induced apoptosis in intestinal plasmacytoid dendritic cells. Alongside its involvement in nucleotide metabolism, ENPP3 exhibits alkaline phosphodiesterase activity, adding to its diverse functions in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA