

ENPP-2 Protein, Human (HEK293, His)

Cat. No.:	HY-P70167
Synonyms:	rHuEctonucleotide phosphodiesterase family member 2/ENPP-2, His ; ATX; ATXFLJ26803; ATX-X; Autotaxin; autotaxin-t; EC 3.1.4.39; ectonucleotide pyrophosphatase/phosphodiesterase 2; E-NPP 2; ENPP2; LysoPLD; NPP2; PD-IALPHA; PDNP2; PDNP2NPP2
Species:	Human
Source:	HEK293
Accession:	AAH34961.1 (A36-I863)
Gene ID:	5168
Molecular Weight:	100-120 kDa

PROPERTIES

AA Sequence

A E G W E E G P P T	V L S D S P W T N I	S G S C K G R C F E	L Q E A G P P D C R
C D N L C K S Y T S	C C H D F D E L C L	K T A R G W E C T K	D R C G E V R N E E
N A C H C S E D C L	A R G D C C T N Y Q	V V C K G E S H W V	D D D C E E I K A A
E C P A G F V R P P	L I I F S V D G F R	A S Y M K K G S K V	M P N I E K L R S C
G T H S P Y M R P V	Y P T K T F P N L Y	T L A T G L Y P E S	H G I V G N S M Y D
P V F D A T F H L R	G R E K F N H R W W	G G Q P L W I T A T	K Q G V K A G T F F
W S V V I P H E R R	I L T I L Q W L T L	P D H E R P S V Y A	F Y S E Q P D F S G
H K Y G P F G P E M	T N P L R E I D K I	V G Q L M D G L K Q	L K L H R C V N V I
F V G D H G M E D V	T C D R T E F L S N	Y L T N V D D I T L	V P G T L G R I R S
K F S N N A K Y D P	K A I I A N L T C K	K P D Q H F K P Y L	K Q H L P K R L H Y
A N N R R I E D I H	L L V E R R W H V A	R K P L D V Y K K P	S G K C F F Q G D H
G F D N K V N S M Q	T V F V G Y G S T F	K Y K T K V P P F E	N I E L Y N V M C D
L L G L K P A P N N	G T H G S L N H L L	R T N T F R P T M P	E E V T R P N Y P G
I M Y L Q S D F D L	G C T C D D K V E P	K N K L D E L N K R	L H T K G S T E E R
H L L Y G R P A V L	Y R T R Y D I L Y H	T D F E S G Y S E I	F L M P L W T S Y T
V S K Q A E V S S V	P D H L T S C V R P	D V R V S P S F S Q	N C L A Y K N D K Q
M S Y G F L F P P Y	L S S S P E A K Y D	A F L V T N M V P M	Y P A F K R V W N Y
F Q R V L V K K Y A	S E R N G V N V I S	G P I F D Y D Y D G	L H D T E D K I K Q
Y V E G S S I P V P	T H Y Y S I I T S C	L D F T Q P A D K C	D G P L S V S S F I
L P H R P D N E E S	C N S S E D E S K W	V E E L M K M H T A	R V R D I E H L T S
L D F F R K T S R S	Y P E I L T L K T Y	L H T Y E S E I	

Biological Activity

The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

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. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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

The ENPP-2 Protein hydrolyzes lysophospholipids, specifically lysophosphatidylcholine, to produce the signaling molecule lysophosphatidic acid (LPA) in extracellular fluids. It can also act on sphingosylphosphorylcholine, producing sphingosine-1-phosphate, which modulates cell motility. In addition, ENPP-2 Protein has been shown to hydrolyze bis-pNPP, pNP-TMP, and ATP to varying extents. It is involved in various motility-related processes, including angiogenesis and neurite outgrowth, and acts as an angiogenic factor by stimulating the migration of smooth muscle cells and microtubule formation. ENPP-2 Protein is also implicated in melanoma cell migration, potentially through a pertussis toxin-sensitive G protein. It may play a role in parturition induction, as well as in cell proliferation and adipose tissue development. Furthermore, it is required for LPA production in activated platelets and cleaves sn-1 lysophospholipids to generate sn-1 lysophosphatidic acids containing predominantly 18:2 and 20:4 fatty acids. ENPP-2 Protein exhibits a preference for the sn-1 isomer of 1-O-alkyl-sn-glycero-3-phosphocholine (lyso-PAF).

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

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