

Recombinant human ENPP-2/Autotaxin protein

Catalog Number: ATGP4057

PRODUCT INFORMATION

Expression system

HEK293

Domain

49-863aa

UniProt No.

Q13822

NCBI Accession No.

NP_001035181.1

Alternative Names

Ectonucleotide pyrophosphatase/phosphodiesterase family member 2 isoform 2, ectonucleotide pyrophosphatase/phosphodiesterase 2, ENPP2, E-NPP 2, AUTOTAXIN, Extracellular lysophospholipase D, LysoPLD, ENPP2, ATX, PDNP2, ATX-X, NPP2, PD-IALPHA

PRODUCT SPECIFICATION

Molecular Weight

94.9kDa (825aa)

Concentration

0.25mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS - PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 15,000 units/mg, and defined as the amount of enzyme that hydrolyze 1nmole of bis(p-Nitrophenyl) phosphate per minute at pH8.7 at 37°C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles

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BACKGROUND

Description

ENPP-2, also known as Autotaxin, belongs to the ectonucleotide pyrophosphatase/phosphodiesterase (NPP) family. ENPP-2 is able to cleave the phosphodiester bond between the α and the β position of triphosphate nucleotides, acting as an ectonucleotide phosphodiesterase producing pyrophosphate, as most members of the ENPP family. It is unlike ENPP-1 and ENPP-3, has weak activity against nucleotides, but exhibits a lysophospholipase D activity which allows the formation of lysophosphatidic acid (LPA) and choline from lysophosphatidylcholine. Also, ENPP-2 and LPA are involved in numerous inflammatory-driven diseases such as asthma and arthritis. Recombinant human ENPP-2/Autotaxin, fused to His-tag at C-terminus, was expressed in HEK293 and purified by using conventional chromatography techniques.

Amino acid Sequence

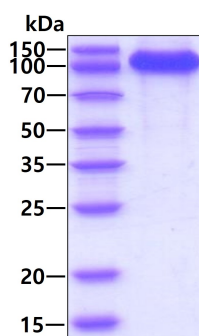
<DGS>MDSPWTN ISGCKGRCF ELQEAGPPDC RCDNLCKSYT SCCHDFDELC LKTARGWECT KDRCGEVRNE
ENACHCEDC LARGDCCTNY QVVCKGESHW VDDDC EEIKA AECFAGFVRP PLIIFSVDGF RASYMCKGSK VMPNIEKLRS
CGTHSPYMRP VYPTKTFPNL YTLATGLYPE SHGIVGNSMY DPVFDATFHL RGREKFNHRW WGGQPLWITA TKQGVKAGTF
FWSVVIPIER RILTILQWLT LPDHERPSVY AFYSEQPDFS GHKYGPFGPE MTNPLREIDK IVGQLMDGLK QKLHRCVNV
IFVGDHGMED VTCDRTEFLS NYLTNVDDIT LVPGLTGRIR SKFSNNAKYD PKAIIANLTC KKPQDQHFQPY LKQHLPKRLH
YANNRRIEDI HLLVERRWHV ARKPLDVYKK PSGKCFQGD HGFNDKVNMS QTVFVGYGST FKYKTKVPPF ENIELYNVMC
DLLGLKPAPN NGTHGSLNHL LRTNTRPTM PEEVTRPNYP GIMYLQSDFD LGCTCDDKVE PKNKLELNK RLHTKGSTEE
RHLLYGRPAV LYRTRYDILY HTDFESGYSE IFLMPLWTSY TVSKQAEVSS VPDHLTSCVR PDVRVSPSFS QNCLAYKNDK
QMSYGLFPP YLSSSPEAKY DAFLVTNMVP MYPAFKRVWN YFQRVLVKKY ASERNGVNV SGPIFDYDYD GLHDTEDKIK
QYVEGSSIPV PTHYYSITS CLDFTQPADK CDGPLSVSSF ILPHRPDNEE SCNSSEDESK WVEELMKMHT ARVRDIEHLT
SLDFFRKT SR SYPEILTLKT YLHTYESEI<H HHHHH>

General References

Benesch MG., et al, (2014) FEBS Letters. 588:2712-2727.
Kawagoe H., et al, (1995) Genomics. 30:380-384.
Benesch MG., et al, (2015) Journal of Lipid Research. 56:1134-1144.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain