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℃.

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

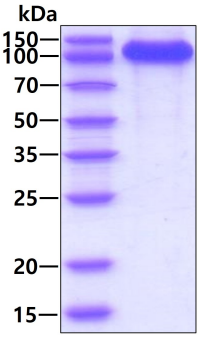
<DGS>MDSPWTN ISGSCKGRCF ELQEAGPPDC RCDNLCKSYT SCCHDFDELC LKTARGWECT KDRCGEVRNE ENACHCSEDC LARGDCCTNY QVVCKGESHW VDDDCEEIKA AECPAGFVRP PLIIFSVDGF RASYMKKGSK VMPNIEKLRS CGTHSPYMRP VYPTKTFPNL YTLATGLYPE SHGIVGNSMY DPVFDATFHL RGREKFNHRW WGGQPLWITA TKQGVKAGTF FWSVVIPHER RILTILQWLT LPDHERPSVY AFYSEQPDFS GHKYGPFGPE MTNPLREIDK IVGQLMDGLK QLKLHRCVNV IFVGDHGMED VTCDRTEFLS NYLTNVDDIT LVPGTLGRIR SKFSNNAKYD PKAIIANLTC KKPDQHFKPY LKQHLPKRLH YANNRRIEDI HLLVERRWHV ARKPLDVYKK PSGKCFFQGD HGFDNKVNSM QTVFVGYGST FKYKTKVPPF ENIELYNVMC DLLGLKPAPN NGTHGSLNHL LRTNTFRPTM PEEVTRPNYP GIMYLQSDFD LGCTCDDKVE PKNKLDELNK RLHTKGSTEE RHLLYGRPAV LYRTRYDILY HTDFESGYSE IFLMPLWTSY TVSKQAEVSS VPDHLTSCVR PDVRVSPSFS QNCLAYKNDK QMSYGFLFPP YLSSSPEAKY DAFLVTNMVP MYPAFKRVWN YFQRVLVKKY ASERNGVNVI SGPIFDYDYD GLHDTEDKIK QYVEGSSIPV PTHYYSIITS CLDFTQPADK CDGPLSVSSF ILPHRPDNEE SCNSSEDESK WVEELMKMHT ARVRDIEHLT SLDFFRKTSR 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