

Human Autotaxin / ENPP2 / NPP2 Protein (His Tag)

Catalog Number: 11308-H07H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ATX, ATX-X, AUTOTAXIN, LysoPLD, NPP2, PD-IALPHA, PDNP2

Protein Construction:

A DNA sequence encoding the mature form of human ENPP2 (AAH34961.1) (Asp 49-Ile 863) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human ENPP2 consists of 834 amino acids and has a calculated molecular mass of 96 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhENPP2 is approximately 120-130 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

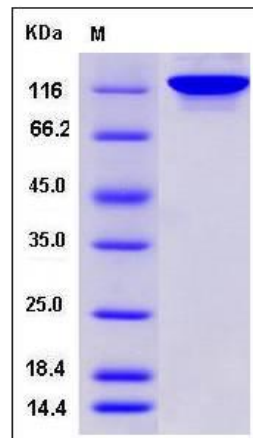
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Autotaxin (ATX) also known as ectonucleotide pyrophosphatase / phosphodiesterase family member 2 (NPP2 or ENPP2). It belongs to the nucleotide pyrophosphatase/phosphodiesterase family. As a catalytic protein, Autotaxin possesses lysophospholipase D activity, and thus involved in cellular membrane lipid metabolism and remodeling. Autotaxin is discovered in human melanoma cells, has been gaining attention because it could be involved in cancer invasion and metastasis as an autocrine motility factor. Recent evidence has indicated that ATX is a key enzyme in the synthesis of lysophosphatidic acid (LPA), a lipid mediator with a wide range of biological actions including the stimulation of proliferation and contraction in hepatic stellate cells, a pivotal player in hepatic fibrosis. LPA evokes growth factor-like responses including stimulation of cell proliferation and chemotaxis. Thus, Autotaxin involves in several motility-related processes such as angiogenesis and neurite outgrowth. It was found acts as an angiogenic factor by stimulating migration of smooth muscle cells and microtubule formation. Additionally, Autotaxin / ENPP2 was thought as a culprit protein for cancer, which potentially stimulates cancer cell proliferation and tumor cell motility, augments the tumorigenicity and induces angiogenic responses.

References

1. Ikeda H. et al., 2009, RinshoByori. 57 (5): 445-9.
2. Boucher J. et al., 2005, Diabetologia. 48: 569-77.
3. Pradere J.P. et al., 2007, BiochimBiophysActa. 1771: 93-102.
4. Tania M. et al., 2010, BiochemBiophysRes Commun. 401 (4): 493-7.

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