

Human Autotaxin / ENPP2 / NPP2 Protein (His Tag)

Catalog Number: 11308-H07H



Sino Biological
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: HEK293 Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg 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, mannitol and 0.01% Tween80 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:

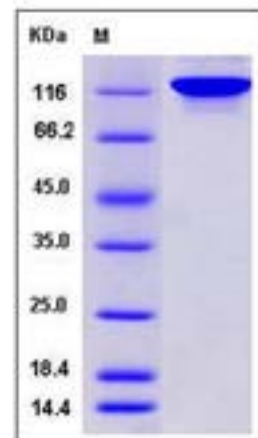
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ENPP2 (Ectonucleotide pyrophosphatase/phosphodiesterase family member 2), also referred as Autotaxin, is a secreted enzyme encoded by the ENPP2 gene. This gene product stimulates the motility of tumor cells, has angiogenic properties, and its expression is upregulated in several kinds of carcinomas. The Autotaxin protein is important for generating the lipid signaling molecule lysophosphatidic acid (LPA), which is a potent mitogen, which facilitates cell proliferation and migration, neurite retraction, platelet aggregation, smooth muscle contraction, actin stress formation and cytokine and chemokine secretion. ATX has been found to catalyze the formation of cyclic phosphatidic acid (cPA), which have antitumor role by antimitogenic regulation of cell cycle, inhibition of cancer invasion and metastasis. LPA receptors and ATX are upregulated in numerous cancer cell types and show expression patterns that correlate with tumor cell invasiveness. Thus, Autotaxin has recently emerged as an attractive target for the development of anti-cancer chemotherapeutics. In addition, Serum ATX activity was found to be enhanced in relation to hepatic fibrosis in chronic liver disease due to hepatitis virus C infection.

References

1. Tania M, *et al.* (2010) Autotaxin: a protein with two faces. *Biochem Biophys Res Commun.* 401(4): 493-7.
2. Ikeda H, *et al.* (2009) Significance of serum autotaxin activity in gastrointestinal disease. *Rinsho Byori.* 57(5): 445-9.
3. Parrill AL, *et al.* (2008) Autotaxin inhibition: challenges and progress toward novel anti-cancer agents. *Anticancer Agents Med Chem.* 8(8): 917-23.

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