

Human PLA2G1B / PLA2 Protein (His Tag)

Catalog Number: 10865-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

PLA2; PLA2A; PPLA2

Protein Construction:

A DNA sequence encoding the human PLA2G1B (NP_000919.1) (Met 1-Ser 148) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to hydrolyze 1-Hexadecanoyl-2-(1-pyrenedecanoyl)-sn-glycero-3-phosphomethanol. The specific activity is >2,500 pmol/min/μg.

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: Asp 16

Molecular Mass:

The recombinant human PLA2G1B comprises 144 amino acids after removal of the signal peptide, and has a predicted molecular mass of 16.2 kDa. rh PLA2G1B migrates as an approximately 19 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 10mM Tris, 5mM CaCl₂, pH 8.0

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:

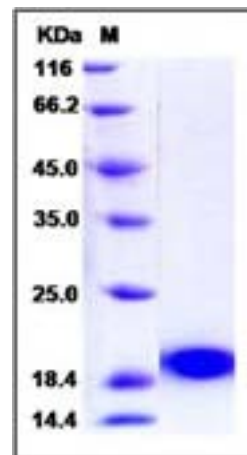
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

phospholipase A2, also known as Phosphatidylcholine 2-acylhydrolase 1B, Group IB phospholipase A2, PLA2 and PLA2G1B, is a secreted protein which belongs to the phospholipase A2 family. Phospholipase A2 / PLA2G1B catalyzes the release of fatty acids from glycerol-3-phosphocholines. The best known varieties are the digestive enzymes secreted as zymogens by the pancreas of mammals. Sequences of pancreatic Phospholipase A2 / PLA2G1B enzymes from a variety of mammals have been reported. One striking feature of these enzymes is their close homology to venom phospholipases of snakes. Other forms of Phospholipase A2 / PLA2G1B have been isolated from brain, liver, lung, spleen, intestine, macrophages, leukocytes, erythrocytes, inflammatory exudates, chondrocytes, and platelets. Mice lacking in Phospholipase A2 / PLA2G1B are resistant to obesity and diabetes induced by feeding a diabetogenic high-fat/high-carbohydrate diet. Oral supplementation of a diabetogenic diet with the PLA2G1B inhibitor methyl indoxam effectively suppresses diet-induced obesity and diabetes. PLA2G1B inhibition may be a potentially effective oral therapeutic option for treatment of obesity and diabetes.

References

1.Labonté,E.D. et al., 2006, Diabetes. 55 (4) :935-41. 2.Mounier,C.M. et al.,2008, Br J Cancer. 98 (3):587-95. 3.Hui,D.Y. et al., 2009, Br J Pharmacol. 157 (7):1263-9.

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