

Human PLA2G7 / PAFAH Protein (His Tag)

Catalog Number: 10848-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

LDL-PLA2; LP-PLA2; PAFAD; PAFAH

Protein Construction:

A DNA sequence encoding the human PLA2G7 (Q13093-1) precursor (Met 1-Asn 441) was expressed, with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave a colorimetric peptide substrate, 10-hexadecyl-2-deoxy-2-thio S-acetylsglycerol-3-phosphoryl choline (2-Thio-PAF), in the presence of 5, 5'-Dithiobis(2-nitrobenzoic acid) (DTNB). The specific activity is >5000 pmoles/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: Phe 22

Molecular Mass:

The secreted recombinant human PLA2G7 comprises 431 amino acids with a predicted molecular mass of 49.2 kDa. As a result of glycosylation, it migrates as an approximately 50-55 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM NaAc, 150mM NaCl, 10% glycerol, pH 5.0

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:

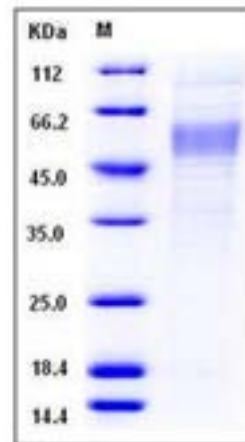
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Platelet-activating factor acetylhydrolase, also known as 1-alkyl-2-acetyl-glycerophosphocholine esterase, 2-acetyl-1-alkyl-glycerophosphocholine esterase, Group-VIIA phospholipase A2, LDL-associated phospholipase A2, PAF 2-acylhydrolase, PLA2G7 and PAFAH, is secreted protein which belongs to the AB hydrolase superfamily and Lipase family. PLA2G7 / PAFAH modulates the action of platelet-activating factor (PAF) by hydrolyzing the sn-2 ester bond to yield the biologically inactive lyso-PAF. It has a specificity for substrates with a short residue at the sn-2 position. It is inactive against long-chain phospholipids. PLA2G7 / PAFAH is a potent pro- and anti-inflammatory molecule that has been implicated in multiple inflammatory disease processes, including cardiovascular disease. PLA2G7 also represents an important, potentially functional candidate in the pathophysiology of coronary artery disease (CAD). Defects in PLA2G7 are the cause of platelet-activating factor acetylhydrolase deficiency (PLA2G7 deficiency). It is a trait which is present in 27% of Japanese. It could have a significant physiologic effect in the presence of inflammatory bodily responses.

References

1.Stafforini D.M., et al., 1996, J. Clin. Invest. 97:2784-2791. 2.Yoshida H., et al., 1998, Thromb. Haemost. 80:372-375. 3.Yamada Y., et al., 1998, Metabolism 47:177-181.

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