

Recombinant Human PLA2G7/Lp-PLA2 Protein (His Tag)

Catalog No. PKSH031390

Note: Centrifuge before opening to ensure complete recovery of vial contents.

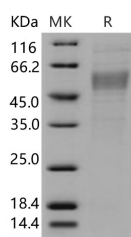
Description

Synonyms	2-acetyl-1-alkylglycerophosphocholine esterase;EC 3.1.1;EC 3.1.1.47;1-alkyl-2-acetyl-glycerophosphocholine esterase;Group-VIIA phospholipase A2;gVIIA-PLA2;LDL-associated phospholipase A2;LDL-PLA(2);LDL-PLA2;lipoprotein-associated phospholipase A2;LpPLA2;Lp-PLA2;PAF acetylhydrolase;PAF-AH;PAFAH/PAF 2-acylhydrolase;phospholipase A2;group VII (platelet-activating factor acetylhydrolase;PLA2G7;plasma);platelet-activating factor acetylhydrolase
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Asn 441
Accession	Q13093-1
Calculated Molecular Weight	49.2 kDa
Observed molecular weight	50-55 kDa
Tag	C-His
Bioactivity	Measured by its ability to cleave a colorimetric peptide substrate, 1O-hexadecyl-2-deoxy-2-thio Sacetylsnglyceryl-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.

Properties

Purity	> 88 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
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. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Platelet-activating factor acetylhydrolase; also known as 1-alkyl-2-acetyl-glycerophosphocholine esterase; 2-acetyl-1-alkylglycero-phosphocholine 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.

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