Data Sheet (Cat.No.TMPY-04692)

TargetMol

Lp-PLA2/PLA2G7 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	R75400;phospholipase A2 group VII
Protein Construction:	A DNA sequence encoding the mouse Pla2g7 (NP_038765.2) (Met1-Asn440) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Phe 22
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q60963
Molecular Weight:	48.3 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Platelet-activating factor acetylhydrolase, also known as 1-alkyl-2-acetylglycerophosphocholine esterase, 2-acetyl-1-alkylglycero-phosphocholine esterase, Group-VIIA phospholipase A2, LDL-associated phospholipase A2, PAF 2-acylhydrolase, PLA2G7 and PAFAH, is a secreted protein that 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 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 that is present in 27% of Japanese. It could have a significant physiologic effect in the presence of inflammatory bodily responses.

Reference

Stafforini D.M., et al., 1996, J. Clin. Invest. 97:2784-2791.
Yoshida H., et al., 1998, Thromb. Haemost. 80:372-375.
Yamada Y., et al., 1998, Metabolism 47:177-181.
Kruse S., et al., 2000, Am. J. Hum. Genet. 66:1522-1530.

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