Data Sheet (Cat.No.TMPH-02692)

TargetMol

PLA2G15 Protein, Mouse, Recombinant (His & Myc)

General Information

Synonyms:	LCAT-like lysophospholipase (LLPL);Lysosomal phospholipase A and acyltransferase; Pla2g15;Lysosomal phospholipase A2 (LPLA2);Phospholipase A2 group XV;Lypla3;1-O-acylceramide synthase (ACS);Lysophospholipase 3
Protein Construction:	34-412 aa
Species:	Mouse
Expression Host:	E. coli
Accession:	Q8VEB4
Molecular Weight:	50.5 kDa (predicted)
AA Sequence:	AQRHPPVVLVPGDLGNQLEAKLDKPKVVHYLCSKKTDSYFTLWLNLELLLPVIIDCWIDNIRLVYNRTSRATQF PDGVDVRVPGFGETFSMEFLDPSKRNVGSYFYTMVESLVGWGYTRGEDVRGAPYDWRRAPNENGPYFLALR EMIEEMYQMYGGPVVLVAHSMGNVYMLYFLQRQPQVWKDKYIHAFVSLGAPWGGVAKTLRVLASGDNNRI PVIGPLKIREQQRSAVSTSWLLPYNHTWSHEKVFVYTPTTNYTLRDYHRFFRDIGFEDGWFMRQDTEGLVEA MTPPGVELHCLYGTGVPTPNSFYYESFPDRDPKICFGDGDGTVNLESVLQCQAWQSRQEHRVSLQELPGSEH IEMLANATTLAYLKRVLLEP

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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.

Shipping:

In general, Lyophilized powders are shipping with blue ice. Solutions are shipping with dry ice.

Protein Background

Has dual calcium-independent phospholipase and O-acyltransferase activities with a potential role in glycerophospholipid homeostasis and remodeling of acyl groups of lipophilic alcohols present in acidic cellular compartments. Catalyzes hydrolysis of the ester bond of the fatty acyl group attached at sn-1 or sn-2 position of phospholipids (phospholipase A1 or A2 activity) and transfer it to the hydroxyl group at the first carbon of lipophilic alcohols (O-acyltransferase activity). Among preferred fatty acyl donors are phosphatidylcholines, phosphatidylethanolamines, phosphatidylglycerols and phosphatidylserines. Favors sn-2 over sn-1 deacylation of unsaturated fatty acyl groups of phosphatidylcholines and phosphatidylethanolamines. Among preferred fatty acyl acceptors are natural lipophilic alcohols including short-chain ceramide N-acetyl-sphingosine (C2 ceramide), alkylacylglycerols, monoacylglycerols, and acylethanolamides such as anandamide and oleoylethanolamide. Selectively hydrolyzes the sn-1 fatty acyl group of truncated oxidized phospholipids and may play a role in detoxification of reactive oxidized phospholipids during oxidative stress. Required for normal phospholipid degradation in alveolar macrophages with potential implications in pulmonary surfactant clearance. At neutral pH, hydrolyzes the sn-1 fatty acyl group of the lysophosphatidylcholines.

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