

Recombinant Human PLA2G4A

Cat. No. PLA2G4A-30736TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment corresponding to amino acids 1-110 of Human Phospholipase A2 with proprietary tag; Predicted MWt 37.73 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	110 amino acids
Description	This gene encodes a member of the cytosolic phospholipase A2 group IV family. The enzyme catalyzes the hydrolysis of membrane phospholipids to release arachidonic acid which is subsequently metabolized into eicosanoids. Eicosanoids, including prostaglandins and leukotrienes, are lipid-based cellular hormones that regulate hemodynamics, inflammatory responses, and other intracellular pathways. The hydrolysis reaction also produces lysophospholipids that are converted into platelet-activating factor. The enzyme is activated by increased intracellular Ca²⁺ levels and phosphorylation, resulting in its translocation from the cytosol and nucleus to perinuclear membrane vesicles.
Molecular Weight	37.730kDa inclusive of tags
Tissue specificity	Expressed in various tissues such as macrophages, platelets, neutrophils, fibroblasts and lung endothelium.
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.31% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MSFIDPYQHIIVEHQYSHKFTVVVLRA TKVTKGAFGDMLDTPDPYVELFISTTPDSRK RTRHFNNNDINPVWNETFEFILDPNQENVLEITLMDANYVMDETLGTATFTVS
Sequence Similarities	Contains 1 C2 domain.Contains 1 PLA2c domain.

GENE INFORMATION

Gene Name	PLA2G4A phospholipase A2, group IVA (cytosolic, calcium-dependent) [Homo sapiens]
Official Symbol	PLA2G4A
Synonyms	PLA2G4A; phospholipase A2, group IVA (cytosolic, calcium-dependent); PLA2G4; cytosolic phospholipase A2; cPLA2 alpha;
Gene ID	5321
mRNA Refseq	NM_024420
Protein Refseq	NP_077734
Uniprot ID	P47712
Chromosome	1q25

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Location	
Pathway	ADP signalling through P2Y purinoceptor 1, organism-specific biosystem; Arachidonic acid metabolism, organism-specific biosystem; Arachidonic acid metabolism, conserved biosystem; Ca-dependent events, organism-specific biosystem; Endothelins, organism-specific biosystem;
Function	calcium ion binding; calcium-dependent phospholipase A2 activity; calcium-dependent phospholipid binding; hydrolase activity; lysophospholipase activity;

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