Recombinant Human PLA2G4A, His-tagged

Cat. No. PLA2G4A-557H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PLA2G4A is manufactured with N-terminal fusion HisTag. sPLA2-X His-Tagged Fusion Protein, is 15.5 kDa containing 123 amino acid residues of the human secreted phospholipase A2. It is expressed in*Escherichia Coli*.
Species	Human
Source	E.coli
Description	Phospholipase A2 (PLA2) catalyzes the hydrolysis of the sn-2 position of membrane glycerophospholipids to liberate arachidonic acid (AA), a precursor of eicosanoids including prostaglandins and leukotrienes. The same reaction also produces lysophosholipids, which represent another class of lipid mediators. The secretory PLA2 (sPLA2) family, in which 10 isozymes have been identified, consists of low molecular weight, Ca2+requiring secretory enzymes that have been implicated in a number of biological processes, such as modification of eicosanoid generation, inflammation, and host defense.
Amino Acid Sequence	MRGSHHHHHHGMASHMGILELAGTVGCVGPRTPIAYMKYGCFCGLGGHGQ RDAI DWCCHGHDCCYTRAEEAGCSPKTERYSWQCVNQSVLCGPAENKCQE LLCKCDQ EIANCLAQTEYNLKYLFYPQFLCEPDSPKCD.
Physical Appearance	Sterile Filtered lyophilized (freeze-dried) powder.
Purity	Greater than 95% as determined by SDS PAGE.

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Formulation	Sterile filtered and lyophilized from 0.5 mg/ml in 0.01M Tris buffer pH 7.2.
Stability	Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. The lyophilized protein remains stable until the expiry date when stored at -20°C.

GENE INFORMATION

Gene Name	PLA2G4A phospholipase A2, group IVA (cytosolic, calcium-dependent) [Homo sapiens]
Synonyms	PLA2G4A; phospholipase A2, group IVA (cytosolic, calcium-dependent); PLA2G4; MGC126350; cPLA2-alpha; PLA2G4A; cytosolic phospholipase A2; cPLA2; lysophospholipase; phospholipase A2 group IVA; phosphatidylcholine 2-acylhydrolase; calcium-dependent phospholipid-binding protein; EC 3.1.1.4; EC 3.1.1.5
Gene ID	5321
mRNA Refseq	NM_024420
Protein Refseq	NP_077734
MIM	600522
UniProt ID	P47712
Chromosome Location	1q25
Pathway	Arachidonic acid metabolism; Ether lipid metabolism; Fc epsilon RI signaling pathway;

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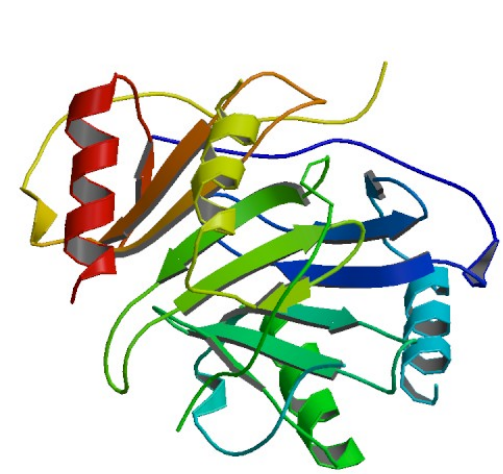
	Fc gamma R-mediated phagocytosisGlycerophospholipid metabolism; GnRH signaling pathway; Long-term depression; MAPK signaling pathway; Vascular smooth muscle contraction; alpha-Linolenic acid metabolism; Opioid Signalling
Function	calcium-dependent phospholipase A2 activity; hydrolase activity; lysophospholipase activity; phospholipase A2 activity
PDB rendering based on 1f9q.	

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