

Recombinant Mouse Pla2g2e, His-tagged

Cat. No. Pla2g2e-1196M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse PLA2G2E (Met 1-Cys 142) was expressed, with a C-terminal polyhistidine tag.
Species	Mouse
Source	Human Cells
ProteinLength	1-142 a.a.
Description	Mouse Group IIE secretory phospholipase A2, also known as GIIE sPLA2, sPLA2-IIE, Phosphatidylcholine 2-acylhydrolase 2E and PLA2G2E is a secreted protein which belongs to the phospholipase A2 family. Mammalian secretory phospholipase A2s (sPLA2s) form a family of structurally related enzymes that are involved in a variety of physiological and pathological processes via the release of arachidonic acid from membrane phospholipids or the binding to specific membrane receptors. Phospholipases A2 / PLA2 are enzymes that release fatty acids from the second carbon group of glycerol. This particular phospholipase specifically recognizes the sn-2 acyl bond of phospholipids and catalytically hydrolyzes the bond releasing arachidonic acid and lysophospholipids. Phospholipases A2 / PLA2 are commonly found in mammalian tissues as well as insect and snake venom. Venom from both snakes and insects is largely composed of melittin, which is a stimulant of Phospholipases A2 / PLA2. Due to the increased presence and activity of Phospholipases A2 / PLA2 resulting from a snake or insect bite, arachidonic acid is released from the phospholipid membrane disproportionately. As a result,

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inflammation and pain occur at the site. PLA2G2E catalyzes the calcium-dependent hydrolysis of the 2-acyl groups in 3-sn-phosphoglycerides. Has a preference for arachidonic-containing phospholipids.

Predicted N Terminal Asn 20

Form Lyophilized from sterile PBS, 10% glycerol, pH 7.4

Molecular Mass The secreted recombinant mouse PLA2G2E comprises 134 amino acids and has a calculated molecular mass of 15.5 kDa. The apparent molecular mass of the recombinant protein is approximately 18 kDa in SDS-PAGE under reducing conditions.

Endotoxin < 1.0 eu per µg of the protein as determined by the LAL method.

Purity >97 % as determined by SDS-PAGE

Stability Samples are stable for up to twelve months from date of receipt at -70°C

Storage Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution A hardcopy of COA with reconstitution instruction is sent along with the products.

Shipping In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

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Gene Name	Pla2g2e?phospholipase A2, group IIE [?Mus musculus?(house mouse)]
Official Symbol	Pla2g2e
Synonyms	Pla2g2e; phospholipase A2, group IIE; group IIE secretory phospholipase A2; sPLA2-IIE; GIIE sPLA2; mGIIEsPLA2s; phosphatidylcholine 2-acylhydrolase 2E; NP_036174.1; EC 3.1.1.4
Gene ID	26970
mRNA Refseq	NM_012044
Protein Refseq	NP_036174
UniProt ID	Q9QUL3
Chromosome Location	4 D3; 4
Pathway	Acyl chain remodelling of PC; Arachidonic acid metabolism; Ether lipid metabolism
Function	calcium ion binding; hydrolase activity; metal ion binding; phospholipase A2 activity