

## PLA2G12A

### Recombinant Human PLA2G12A/Phospholipase A2-XIIA His

<b>Catalog No.</b>	CSI12540	<b>Quantity:</b>	2 µg
	CSI12541		10 µg
	CSI12542		1.0 mg

**Alternate Names:** Group XIIA secretory phospholipase A2, EC 3.1.1.4, Phosphatidylcholine 2-acylhydrolase GXII, GXII sPLA2, PLA2G12, sPLA2-XII, PLA2G12A.

**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 lysophospholipids, which represent another class of lipid mediators. The secretory PLA2 (sPLA2) family, in which 10 isozymes have been identified, consists of low molecular weight, Ca<sup>2+</sup>-requiring secretory enzymes that have been implicated in a number of biological processes, such as modification of eicosanoid generation, inflammation, and host defense. This enzyme has been proposed to hydrolyze phosphatidylcholine (PC) in lipoproteins to liberate lyso- PC and free fatty acids in the arterial wall, thereby facilitating the accumulation of bioactive lipids and modified lipoproteins in atherosclerotic foci. In mice, sPLA2 expression significantly influences HDL particle size and composition and demonstrate that an induction of sPLA2 is required for the decrease in plasma HDL cholesterol in response to inflammatory stimuli. Instillation of bacteria into the bronchi was associated with surfactant degradation and a decrease in large:small ratio of surfactant aggregates in rats. Secreted Recombinant Human Phospholipase A2-XII was produced with N-terminal His-Tag. PLA2G12 His-Tagged Fusion Protein is 20.6 kDa containing 167 amino acid residues of the human secreted phospholipase A2-XII and 16 additional amino acid residues.

**Physical Appearance:** Sterile Filtered lyophilized (freeze-dried) powder.

**Gene ID:** 81579

**Source:** *E. coli*

**Formulation:** Sterile filtered and lyophilized from 0.5 mg/ml in 0.01 M Tris buffer, pH 8.6.

**Purity:** Greater than 95% as determined by SDS PAGE.

**Purification Method:** Ni-NTA affinity chromatography.

**Specificity:** The amino acid sequence of the recombinant human Secreted Phospholipase A2-XII is 100% homologous to the amino acid sequence of the human Secreted Phospholipase A2-XII without signal sequence.

**Amino Acid Sequence:** MRGSHHHHHH GMASHMQEQA QTTDWRATLK TIRNGVHKID TYLNAALDLL GGEDGLCQYK CSDGSKPFPR YGYKPSPPNG CGSPLFGVHL NIGIPSLTKC CNQHRCYET CGKSKNDCDE EFQYCLSKIC RDVQKTLGLT QHVQACETT V ELLFDSVIHL GCKPYLDSQR AACRCHYEELK TDL.

**Applications:** Western blotting.

**Storage & Stability:**



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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 expiration date when stored at -20°C.

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