

## PLA2G2E Human

**Description:** Secreted Phospholipase A2-IIe Human Recombinant manufactured with N-terminal His-Tag. PLA2G2E His-Tagged Fusion Protein is 15.8 kDa protein containing 123 amino acid residues of the human secreted phospholipase A2-IIe and 16 additional amino acid residues His-Tag

(underlined).MRGSHHHHHGMASHMNLVQFGVMIEKMTGKSALQYNDYGCYCGIGGSHWPVD  
QTDWCCHAHDCCYGRLEKLGCEPKLEKYLFSVSERGIFCAGRTTCQRLTCECDKRAALCFRRNL  
GTYNRKYAHYPNKLCTGTPPC.

**Synonyms:** Group IIE secretory phospholipase A2, EC 3.1.1.4, Phosphatidylcholine 2-acylhydrolase GIIE, GIIE sPLA2, sPLA(2)-IIE, sPLA2-IIE, PLA2G2E.

**Source:** Escherichia Coli.

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

**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-IIe is 100% homologous to the amino acid sequence of the human Secreted Phospholipase A2-IIe without signal sequence.

**Formulation:**

Sterile filtered and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH-4.

**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.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Solubility:**

Add 0.2 ml of 0.1M Acetate buffer pH-4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 g/ml. In higher concentrations the solubility of this antigen is limited.

**Introduction:**

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.

Catalog #: ENPS-334

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