

Product Data Sheet

□ Cat # RP-411

Recombinant Human Secreted Phospholipase A2-X

Size: □ 10 ug

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, Ca²⁺-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. The amino acid sequence of the recombinant human Secreted Phospholipase A2-X is 100% homologous to the amino acid sequence of the human Secreted Phospholipase A2-X without signal sequence and activation peptide.

Source: *Escherichia Coli* Secreted Phospholipase A2-X Human Recombinant 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-X and 16 additional amino acid residues - HisTag (underlined). Sterile filtered and lyophilized from 0.5 mg/ml in 0.01M Tris buffer pH 7.2.

Applications and Suggested Dilutions: Add 0.2 ml of distilled water and let the lyophilized pellet dissolve completely. Greater than 95% as determined by SDS PAGE. Western blotting Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Single-step procedure using affinity Ni-NTA chromatography. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, S an Antonio, T X 7 8 24 4 , U S A;

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400 Fax: +91-11-42208444 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com