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California Bioscience

Product Datasheet

Product Name	Secreted Phospholipase A2-V Human Recombinant
Cata No	CB500504
Source	*Escherichia Coli.*
Synonyms	Calcium-dependent phospholipase A2, EC 3.1.1.4, Phosphatidylcholine 2-acylhydrolase, PLA2-10, Group V phospholipase A2, GV-PLA2, MGC46205, hVPLA(2), DKFZp686C2294, sPLA2-V, PLA2G5.

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.

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 Phospholipase A2-V Human Recombinant was produced with N-terminal His-Tag. PLA2G5 His-Tagged Fusion protein is 15.5 kDa containing 118 amino acid residues of the human secreted phospholipase A2-V and 16 additional amino acid residues – His-Tag (underlined).

MRGSHHHHHH GMASHMGLLD LKSMIEKVTG KNALTNYGFY GCYCGWGGRG TPKDGTDWCC WAHDHCYGRLEEKGCNIRTQ SYKYRFAWGV VTCEPGPFCH VNLCACDRKL VYCLKRNLRS YNPQYQYFPN ILCS

Physical Appearance

Lyophilized (freeze-dried) powder.

Purity

Greater than 95% as determined by SDS PAGE.

Formulation

Filtered (0.4μm) and lyophilized in 0.5 mg/mL in 0.05M Acetate buffer pH4.

Reconstitution

Add 0.1M Acetate buffer pH4 to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10μg/mL. In higher concentrations the solubility of this antigen is limited. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture

Applications

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Western blotting

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