



## Product Datasheet

<b>Product Name</b>	Secreted Phospholipase A2-XII Human Recombinant
<b>Cata No</b>	CB500506
<b>Source</b>	<i>Escherichia Coli</i> .
<b>Synonyms</b>	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 Phospholipase A2-XII Human Recombinant 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 – His-Tag (underlined).  
MRGSHHHHHHGMASHMQEQAQTDDWRATLKTI  
RNGVHKIDTYLNAALDLL  
GGEDGLCQYKCS DGSKPFPYGYKPSPPNGCG  
SPLFGVHLNIGIPSLTKCCNQ  
HDCRYETCGKSKNDCDEEFQYCLSKICRDVQKTL  
GLTQHVQACETTVELLFD  
SVIHLGCKPYLDSQRAACRCHYEKTDL

### Physical Appearance

Sterile Filtered lyophilized (freeze-dried) powder.

### Purity

Greater than 95% as determined by SDS PAGE.

### Formulation

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

### 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. The lyophilized protein remains stable until the expiry date when stored at -20°C.

### Applications

Western blotting

**\* For Non-Clinical Research Use Only \***



# California Bioscience

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83103 Avenue 48, Ste.1B #204  
Coachella, CA 92236 USA  
Phone : +1.6268339877  
Email : [info@cali-bio.com](mailto:info@cali-bio.com)

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