# Recombinant Protein Technical Manual

## Recombinant Human PLA2G1B/PLA2 Protein (His Tag)(Active)

**RPES0349**

## Product Data:

**Product SKU:** RPES0349

**Size:** 10µg

**Species**: Human

**Expression host:** HEK293 Cells

**Uniprot:** NP_000919.1

## Protein Information:

| | |
|---|---|
| **Molecular Mass:** | 16.2 kDa |
| **AP Molecular Mass:** | 19 kDa |
| **Tag:** | C-His |
| **Bio-activity:** | Measured by its ability to hydrolyze 1-Hexadecanoyl-2-(1-pyrenedecanoyl)-sn-glycero-3-phosphomethanol. The specific activity is >2,500 pmol/min/µg. |
| **Purity:** | > 92 % as determined by reducing SDS-PAGE. |
| **Endotoxin:** | < 1.0 EU per µg as determined by the LAL method. |
| **Storage:** | Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping:** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation:** | Lyophilized from sterile 10mM Tris, 5mM CaCl2, pH 8.0 |
| **Reconstitution:** | Please refer to the printed manual for detailed information. |
| **Application:** | |
| **Synonyms:** | PLA2G1B;Phospholipase A2;Group IB phospholipase A2;PLA2;PLA2A;PPLA2 |

## Immunogen Information:

**Sequence:** Met 1-Ser 148

## Background:

phospholipase A2, also known as Phosphatidylcholine 2-acylhydrolase 1B, Group IB phospholipase A2, PLA2 and PLA2G1B, is a secreted protein which belongs to the phospholipase A2 family. Phospholipase A2 / PLA2G1B catalyzes the release of fatty acids from glycero-3-phosphocholines. The best known varieties are the digestive enzymes secreted as zymogens by the pancreas of mammals. Sequences of pancreatic Phospholipase A2 / PLA2G1B enzymes from a variety of mammals have been reported. One striking feature of these enzymes is their close homology to venom phospholipases of snakes. Other forms of Phospholipase A2 / PLA2G1B have been isolated from brain, liver, lung, spleen, intestine, macrophages, leukocytes, erythrocytes, inflammatory exudates, chondrocytes, and platelets. Mice lacking in Phospholipase A2 / PLA2G1B are resistant to obesity and diabetes induced by feeding a diabetogenic high-fat/high-carbohydrate diet. Oral supplementation of a diabetogenic diet with the PLA2G1B inhibitor methyl indoxam effectively suppresses diet-induced obesity and diabetes. PLA2G1B inhibition may be a potentially effective oral therapeutic option for treatment of obesity and diabetes.