

PLA2G7 Protein, Mouse (419a.a, HEK293, His)

Cat. No.:	HY-P77444
Synonyms:	Platelet-Activating Factor Acetylhydrolase; gVIIA-PLA2; LDL-Associated Phospholipase A2; LDL-PLA(2); PAF 2-Acylhydrol
Species:	Mouse
Source:	HEK293
Accession:	Q60963/NP_038765.2(F22-N440)
Gene ID:	27226
Molecular Weight:	Approximately 52-65 kDa.

PROPERTIES

AA Sequence	<pre> FHWQDTSSFD FRPSVMFHKL QSVMSAAGSG HSKIPKNGS YVPGCTDLMF GYGNESVFVR LYYP AQDQGR LDTVWIPNKE YFLGLSIFLG TPSIVGNILH LLYGSLTTPA SWNSPLRTGE KYPLIVFSHG LGAFRTIYSA IGIGLASNGF IVATVEHRDR SASATYFFED QVAAKVENRS WLYLRKVKQE ESESVRKEQV QQR AIECSRA LSAILDIEHG DPKENVLGSA FDMKQLKDAI DETKIALMGH SFGGATVLQA LSEDQRFRCG VALDPWMPV NEELYSR TLQ PLLFINS AKF QTPKDI AKMK KFYQPDKERK MITIKGSVHQ NFD DFTFVTG KIIGNKLT LK GEIDSRVAID LTNKASMAFL QKHLGLQKDF DQWDPLVEGD DENLIPGSPF DAVTQVPAQQ HSPGSQTQN </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

PLA2G7 protein, a lipoprotein-associated calcium-independent phospholipase A2, plays a pivotal role in phospholipid catabolism during inflammatory and oxidative stress responses. Operating at the lipid-aqueous interface, it hydrolyzes the ester bond of fatty acyl groups at the sn-2 position of phospholipids, with a specific preference for those carrying short-chain fatty acyl groups. Additionally, PLA2G7 can target phospholipids with long fatty acyl chains if they bear oxidized functional groups. The enzyme's versatility extends to inactivating platelet-activating factor (PAF), a potent pro-inflammatory signaling lipid, and hydrolyzing oxidatively truncated phospholipids, preventing their accumulation and uncontrolled pro-inflammatory effects. When associated with high-density lipoprotein (HDL) particles, PLA2G7 contributes to the hydrolysis of phospholipids containing long-chain fatty acyl hydroperoxides, safeguarding against potential oxylipin accumulation in the vascular wall. Furthermore, PLA2G7 catalyzes the release of F2-isoprostanes, serving as lipid biomarkers for cellular oxidative damage.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA