Recombinant Rat Lp-PLA2/Pla2g7 Protein (His Tag)

Catalog Number: PDMR100087

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

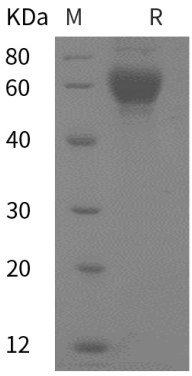
Description

Species	Rat
Source	HEK293 Cells-derived Rat Lp-PLA2 protein Met1-Asn440, with an C-terminal His
Calculated MW	48.3 kDa
Observed MW	60 kDa
Accession	Q5M7T7
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat Lp-PLA2/Pla2g7 proteins, 2 μg/lane of Recombinant Rat Lp-PLA2/Pla2g7 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 60 kDa.

Background

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Secretory phopholipase A2 is an enzyme that hydrolyses the Sn-2 ester bond of phospholipids, generating free fatty acids and lysophospholipids. Most secretory PLA2s are stored in cytoplasmic granules and are released in the extracellular environment on appropriate cell activation. Thus, they are present at higher concentration in the plasma and biologic fluids of patients with systemic inflammatory, autoimmune, or allergic disease, such as acute pancreatitis, rheumatoid arthritis, bronchial asthma, and allergic rhinitis. Also known as Lp-PLA2, PLA2G-VII is a plasma enzyme bound to lipoproteins: 80% bound to LDL, 15%-20% to HDL, and the remainder to VLDL (4-6). It is produced in major by mature macrophages and activated platelets. In contrast to other classical sPLA2s, PLA2G VII has poor specificity toward Sn-2 long chain fatty acids, unless heavily oxidized, and undergoes the catalysis of its substrates in the aqueous phase rather than at the interfacial surface of lipids. Thus, it has high specificity for water-soluble phospholipids in plasma including oxidatively modified phospholipids and platelet-activating factor (PAF). Because of the latter activity, it is also known as PAF acetylhydrolase (PAF-AH).

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