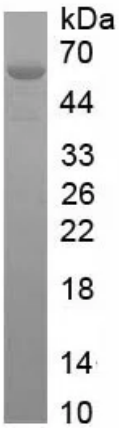
Active Phospholipase A2 Group VII (LpPLA2)

Catalog#:PHR12546

概述（Summary）

别称（Alternative Names）	PLA2G7; PAF-AH; PAFAH; Lp-PLA2; LDL-PLA2; Platelet Activating Factor Acetylhydrolase,Plasma; Phospholipase A2,Group VII; LDL-associated phospholipase A2; Phospholipase A2, Lipoprotein Associated
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Leu22-Asn440】
Accession #	Q5M7T7
表达宿主（Host）	293F
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	48.6 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

$$\text{Specific Activity (pmol/min/ug)} = \frac{\text{Adjusted } V_{max}^{*} \text{ (OD/min) x well volume (L) x } 10^{12} \text{ pmol/mol}}{\text{ext. coeff}^{**} \text{ (M}^{-1}\text{cm}^{-1}\text{) x path corr.}^{***} \text{ (cm) x amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank
**Using the extinction coefficient 13260 $M^{-1}cm^{-1}$
***Using the path correction 0.320 cm

PLA2G-VII which is also known as Lp-PLA2, is a plasma enzyme bound to lipoproteins: 80% bound to LDL, 15%-20% to HDL, and the remainder to VLDL. 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). Lack of human PLA2G-VII is related to a higher risk for stroke and heart disease.The activity of recombinant rat PLA2G-VII was measured by its ability to cleave a colorimetric peptide substrate 1-O-hexadecyl-2-deoxy-2-thio-S-acetyl-sn-glyceryl-3-phosphorylcholine (2-Thio-PAF). The reaction was performed in 50 mM MES, 150 mM NaCl, 0.1 mg/mL BSA, pH 6.5 (Assay Buffer), initiated by addition 50 µL of various concentrations of PLA2G-VII (diluted by Assay Buffer) to 50 µL of 0.2 mM Substrate and 0.2 mM DTNB mixture. The final well serves as a negative control with no PLA2G-VII, replaced with 50 µL assay buffer. Then read absorbance at 405 nm in kinetic mode for 5 minutes. The specific activity of recombinant rat PLA2G-VII is 112.37 pmol/min/µg.

注意事项（Note）

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