PLAQPRO™ Lp-PLA₂ Assay

Enzyme activity kit to measure Lp-PLA₂ activity in serum samples

The PLAQPRO $^{\text{TM}}$ Lp-PLA $_2$ Assay measures the enzyme activity of Lp-PLA $_2$ (lipoprotein-associated phospholipase A2) in serum samples. The assay is designed to run on automated clinical chemistry analyzers.

Approximately two-thirds of heart attacks and strokes are caused by the rupture of an unstable, rupture-prone atherosclerotic plaque. Unstable plaques are characterized by high levels of inflammatory cells and inflammatory mediators.

Lipoprotein-associated phospholipase A2 (Lp-PLA $_2$) is produced by inflammatory cells and circulates primarily bound to low-density lipoprotein (LDL) and is to a lesser extent associated with high-density lipoprotein (HDL) in human plasma. LDL oxidation is an early key event in the pathogenesis of atherosclerosis. Elevated Lp-PLA $_2$ levels have been found in atherosclerotic plaques and rupture lesions.

Citations: 1

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Ordering Information

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ENZ-KIT179-0200

200 tests

Manuals, SDS & CofA

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- Cost-efficient alternative to competitor's Lp-PLA₂ detection system
- Wide analytical measurement range from 0 - 400.0 nmol/min/mL
- Analytical sensitivity of 0.236 nmol/min/mL
- High specificity and reproducibility, lot-after-lot
- Ready-to-use calibration standards and QC controls are provided
- Designed to run on automated clinical chemistry analyzers



Handling & Storage

Use/Stability Store all components, with the exception of Reagent 1, at -80°C until the kit's expiration

date. Reagent 1 may be stored at or below -20°C. Once thawed, the components can

be stored at 2-8°C for up to 4 weeks.

Handling Avoid freeze/thaw cycles.

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Application Colorimetric detection, HTS

Application Notes For the measurement of enzyme activity of Lp-PLA₂ (lipoprotein-associated

phospholipase A2) in serum samples.

Contents Lp-PLA₂ assay buffer

Lp-PLA₂ assay substrate 5 calibrator standards

QC low control QC high control

Sensitivity 0.236 nmol/min/mL

Species Reactivity Human

Technical Info / Product

Notes

The PLAQPRO $^{\text{TM}}$ Lp-PLA $_2$ Assay is a colorimetric readout enzyme activity assay. During the test, Lp-PLA $_2$ in serum samples hydrolyze the S $_N$ 2 position of the substrate, 1-myristoyl-2-(4-nitrophenylsuccinyl)phosphatidylcholine. The resulting colored reaction product, 4-nitrophenol, is measured spectrophotometrically and the rate of formation of 4-nitrophenol is determined over successive measurements.

The assay kit includes five $\operatorname{Lp-PLA}_2$ calibrator standards for use in generating a standard curve fit of change in absorbance versus $\operatorname{Lp-PLA}_2$ activity level in $\operatorname{nmol/min/mL}$. The activity of $\operatorname{Lp-PLA}_2$ in serum samples is interpolated from the calibration curve.

UniProt ID Q13093



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