

CHARM_{cm}[®]

Cardiometabolic Health &
Advanced Risk Management

Innovative Excellence

CHARM_{cm} Redefining Healthcare

CHARM Lipoprotein(a) POC Testing System

The CHARM_{cm} analyser enables routine Point-of-Care Lp(a) measurements, providing easy access to determining Lp(a)-mediated cardiovascular risk.

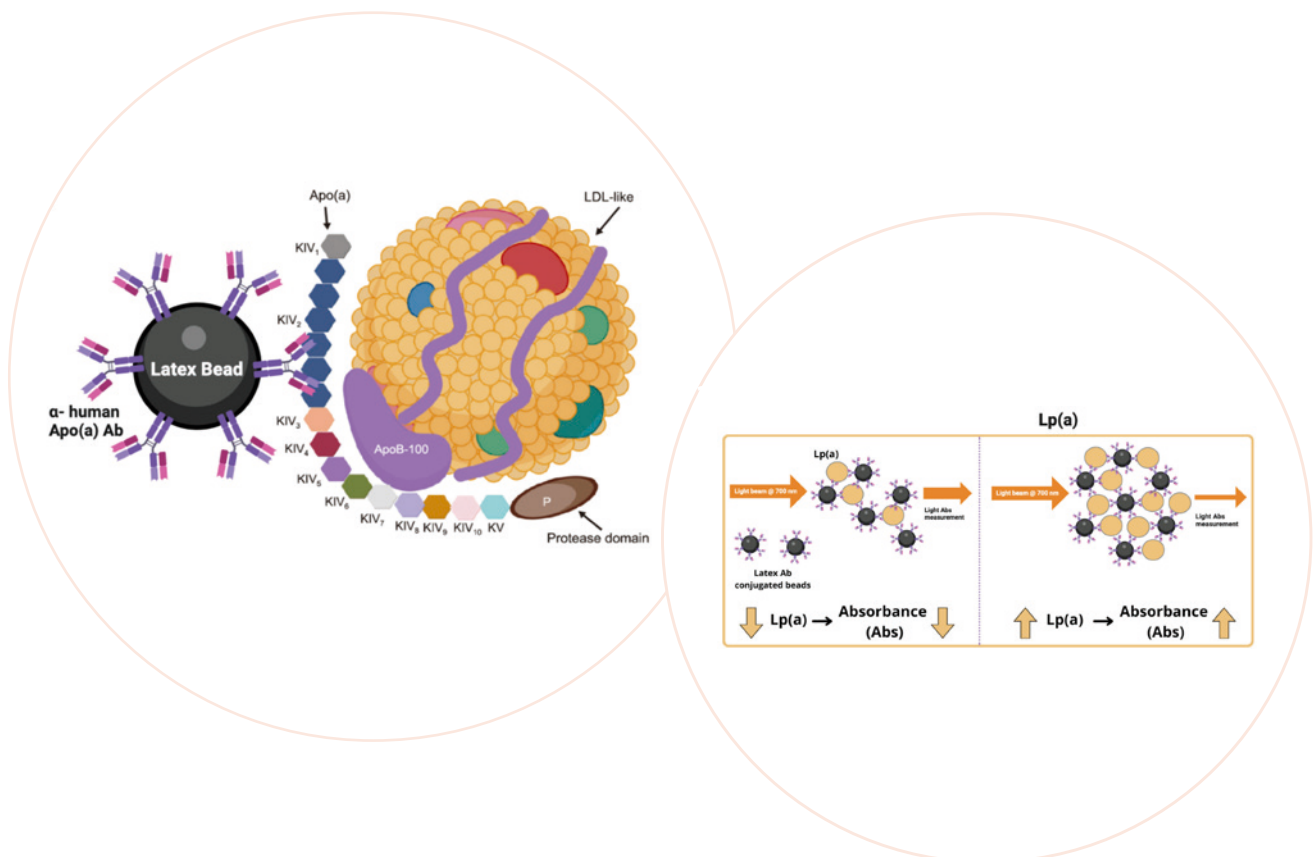


Methodology

Latex-enhanced Immunoturbidimetric kinetic measurement of the Lp(a) concentration at 700 nm (absorbance)

Lp(a) is measured based on a **latex-enhanced immunoturbidimetric assay**. Lp(a) present in biological samples binds to a specific anti-Lp(a) antibody (usually a monoclonal/polyclonal antibody against apo(a)), which is coated on latex particles and causes agglutination.

The degree of turbidity caused by agglutination can be measured optically and is **proportional to the amount of Lp(a)** in the sample. It can also be referred to as the reduction in transmitted light due to scattering, often described as an increase in absorbance, which is proportional to the degree of turbidity in the sample. The assay occurs at a recommended temperature of 37 °C, and the signals are read at an optimal wavelength of 700 nm. With higher concentrations of Lp(a), a higher degree of latex agglutination is observed.







Scientific Data

Parameter	Sample Material	Sample Volume	Assay Range	Precision within run
Lipoprotein(a)	Serum or EDTA plasma	10 µl	10 - 100 mg/dl	CV < 2.5% (at 50 mg/dl)

Sample Material

Fresh sample material: 10 µl serum or EDTA plasma.
Immediately centrifuge and process after blood collecting.

Test Kit

ERS cuvette filled with glycine buffer solution
ERS cap filled with latex reagent - rabbit anti human Lp(a) polyclonal antibodies

Measurement Range

10 - 100 mg/dl
>100 mg/dl - Samples with concentrations higher than the upper limit of the measurement range must be diluted 1 + 2 with physiological sa-line (0.9% NaCl solution), e.g. 10 µl sample + 20 µl 0.9% NaCl solution, and the result multiplied by 3.

Precision within run:

N = 20; mean = 50 mg/dl; CV = 2.46%
N = 20; mean = 23 mg/dl; CV = 5.60%

Correlation

N = 40; y (Euromedix Lp(a)) = 0.9918 x
(Commercial test Lp(a)) - 0.3985; R² = 0.985;

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Know
your
Lp(a)



Cardiometabolic Health & Advanced Risk Management, Let's get in touch ...

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