Apolipoprotein – A_1
Immunoturbidimetry
Quantitative determination

Cat. No. 101-0498 *Size 1x80 ml/1x2 ml*

PRINCIPLE:

The apolipoproteins contained in the human serum form immunocomplexes with their corresponding antibodies. The concentrations are determined by turbidimetry assay. The results are evaluated using a reference curve prepared with the aid of dilutions of calibrator.

CLINICAL SIGNIFICANCE:

In the study of cardiovascular diseases, the apolipoproteins A_1 and B determination represents a more discriminate parameters that the normal lipid determination. Lipoprotein A_1 and B are respectively the markers from HDL and LDL lipoproteins. From an individual level, the risk is increased by a higher Apo B concentration and a lower Apo A_1 concentration.

REAGENTS:

1. **Reagent 1 (1x80 ml)**

TRIS/PEG. buffer pH 7.5

2. **Reagent 2 (1x2 ml)**

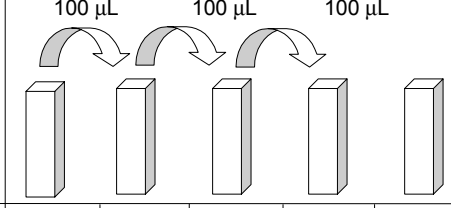
Antiserum Apolipoprotein A_1

Optional: 101-0499 Apo A_1/Apo B calibrator liquid serum

PREPARATION AND STABILITY:

R.1: Ready to use. Stable at 2-8ºC up to the expiration date.
R.2: Must be diluted with buffer solution. The dilutions depends on the analyser (Inquire).
Stable, at 2-8ºC, up to the expiration date.
Calibrator; Ready to use.

Calibration curve: Prepare dilutions of the calibrator APO A1/B using 9 g/L NaCl as diluent:

Std Nº	1	2	3	4	5
Dilution	1/7	1/14	1/28	1/56	0
NaCl (µL) Calibrator (µL)	300 50	100 --	100 --	100 --	100 --
					
Factor	3.00	1.5	0.75	0.37	0

Multiply the Apo A1 calibrator concentration by the corresponding dilution factor indicated in the table to obtain the Apo A1 concentration of the diferent calibrators.

SAMPLES:

Fresh serum. Apolipoproteins in serum are stable 8 days at 2-8ºC.
Do not use haemolized or lipemic samples.
The controls and samples will dilute manually or automatically with saline solution. (NaCl 0.9%).

PROCEDURE:

Wavelength:	340 nm
Cuvette:	1 cm light path
Temperature:	37 ºC
Zero:	distilled water

1. Dilute Antiserum Apo-A_1 (R.2) 1:41 with buffer solution R.1. The working reagent is stable 2 weeks at 2-8ºC.

2. Dilute samples and controls 1:21 with saline solution. (NaCl 0.9%)

3. Pipette into a cuvette:

	Blank	Calibrator	Sample
NaCl 9 g/L (µL)	20	--	--
Calibrator (µL)	--	20	--
Dil. Sample (µL)	--	--	20
Work. Reag. (mL)	1.0	1.0	1.0

4. Mix and read the absorbance (A) against blank after 10 minutes of the working reagent addition.

CALCULATION:

Calculate the absorbance for each calibrator and plot the values found against the concentration in a calibration curve. Apo A_1 concentration in the sample is calculated by interpolation its A value on the calibration curve.

Chronolab has instruction sheets available for several automatic analyzers.

REFERENCE VALUES:

Between 100 – 190 mg/dL.
Each laboratory should establish its own reference range.

PERFORMANCE CHARACTERISTICS:

1. *Measurement interval*: 20-600 mg/dL, under the described assay conditions.

REFERENCES:

Alaupovic P., Lee D.M., Mc. Conathy W.J., Biochem, Byophis Acca 260, 289 (1972)
Fruchart J.L., Kora I., Cachera C. Duthilleul P., Clin. Chem. 28,59 (1982)