

CHOLESTEROL

5 x 25 mL, 5 x 100 mL
51403002, 51403003

INTENDED USE

This reagent is intended for *in vitro* quantitative determination of Cholesterol in serum or plasma.

- CHOD-PAP methodology
- Linear upto 600 mg/dL
- Contains LCF (Lipaemic clearing factor) which minimizes rerun

CLINICAL SIGNIFICANCE

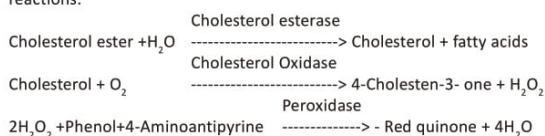
It is the main lipid found in the blood, bile & brain tissues. It is also one of the most important steroids of the body & is a precursor of many steroid hormones. Two thirds of cholesterol present in the blood is esterified. The liver metabolizes the cholesterol & it is transported in the blood stream by lipoproteins.

Increased levels are found in hypercholesterolaemia, hyperlipidaemia, hypothyroidism, uncontrolled diabetes, nephritic syndrome & cirrhosis.

Decreased levels are found in malabsorption, malnutrition, hyperthyroidism, anaemia & liver diseases.

PRINCIPLE

Enzymatic colorimetric determination of total cholesterol according to the following reactions.



REAGENT COMPOSITION

CHOLESTEROL REAGENT	5 x 25 mL / 5 x 100 mL
Pipes buffer (pH 6.70)	50 mmol/L
Phenol	24 mmol/L
Sodium Cholate	0.5 mmol/L
4-aminoantipyrene	0.5 mmol/L
Cholesterol Esterase	> 180 U/L
Cholesterol Oxidase	> 200 U/L
Peroxidase	> 1000 U/L
CHOLESTEROL STANDARD	1 x 4 mL
Cholesterol std. concentration	200 mg/dL

STORAGE AND STABILITY

The sealed reagents are stable upto the expiry date stated on the label when stored at 2- 8°C.

LINEARITY

This reagent is linear upto 600 mg/dL.

If the concentration is greater than linearity (600 mg/dL), dilute the sample with normal saline and repeat the assay. Multiply the result with dilution factor.

NORMAL RANGE

It is recommended that each laboratory establish its own reference values.

The following value may be used as guide line.

Serum / Plasma : 150 – 220 mg/dL

PREPARATION AND STABILITY OF WORKING REAGENT

The reagent is ready to use.

PRECAUTION

To avoid contamination, use clean laboratory wares.

Avoid direct exposure of reagent to light.

SAMPLE

Serum / Plasma (free of haemolysis).

GENERAL SYSTEM PARAMETER

Mode of Reaction	End point
Slope of reaction	Increasing
Wavelength I	505 (492 -550) nm
Wavelength II	630 nm
Temperature	37°C
Standard Concentration	200 mg/dL
Blank	Reagent
Linearity	600 mg/dL
Incubation time	5 min
Sample volume	10 µL
Reagent volume	1000 µL
Cuvette	1 cm light path

LABORATORY PROCEDURE

	Blank	Standard	Sample
Working Reagent	1000 µL	1000 µL	1000 µL
Standard	-	10 µL	-
Sample	-	-	10 µL

Mix, and incubate for 5 min. at 37°C. Measure the absorbance of sample and standard against reagent blank.

CALCULATION

$$\text{Cholesterol Conc. (mg/dL)} = \frac{\text{Absorbance of sample}}{\text{Absorbance of standard}} \times 200$$

BIBLIOGRAPHY

Allain, C.C., *et al.*; Clin.Chem 20 (1974), 470

SYMBOLS USED ON THE LABELS

SYMBOLS USED ON THE LABELS: IN VITRO DIAGNOSTIC USE SEE PACKAGE INSERT FOR PROCEDURE LOT NUMBER MANUFACTURER'S ADDRESS MANUFACTURING DATE EXPIRY DATE TEMPERATURE LIMIT



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ADS/V.02/D60114

ISO 9001 : 2008
ISO 13485 : 2003