ACCUCARE
CHOLESTEROL-SLR
CHOD-POD METHOD

Quantitative determination of Total Cholesterol in serum/plasma Only *For In vitro Diagnostic Use*

ORDER INFORMATION

REF	Cont.
CHOLSLR 25	1 x 25 ml
CHOLSLR 100	2 X 50 ml
CHOLSLR 125	5 X 25 ml
CHOLSLR 200	4 x 50 ml
CHOLSLR 500	1 x 500 ml
CHOLSLR 1000	2 x 500 ml

CLINICAL SIGNIFICANCE

Cholesterol is a fat-like substance that is found in all body cells. The liver makes all of the cholesterol the body needs to form cell membranes and to make certain hormones. The determination of serum cholesterol is one of the important tools in the diagnosis an classification of lipemia. High blood cholesterol is one of the major risk factors for heart disease5,6. Clinical diagnosis should not be made on a single test result; it should integrate clinical and other laboratory data.

PRINCIPLE

Cholesterol esters are hydrolyzed to produce cholesterol. Hydrogen Peroxide is then produced from oxidation of cholesterol by cholesterol oxidase. The indicator quinoneimine is formed from hydrogen peroxide and 4-aminoantipyrine in the presence of phenol and peroxide. The absorption of the red quinoneimine dye is proportional to the concentration of cholesterol in the sample.

REAGENT COMPOSITION

Reagent I : Cholesterol Reagent
Cholesterol Standard : 200 mg/dl

SAMPLE COLLECTION AND PRESERVATION

Serum, heparinised plasma or EDTA plasma.
Stability: 6 days at 2 – 8°C; 4 months at -20°C

REAGENT PREPARATION

The Reagent is ready to use.

REAGENT STORAGE AND STABILITY

The Reagent is stable till expiry when stored at 2 - 8°C.
Store protected from light.

AUTOMATED PARAMETERS	
Wavelength	505nm (490-550nm)
Reaction Type	End point
Cuvette	1 cm light path
Reaction Temperature	37°C
Measurement	Against Reagent Bl
Sample Volume	10 µl
Reagent Volume	1000 µl
Incubation	5 minutes
Maximum Blank Absorbance	< 0.30
Low Normal at 37°C	< 200 mg/dl
High Normal at 37°C	> 240 mg/dl
Linearity at 37°C	1000 mg/dl

MANUAL ASSAY PROCEDURE

PIPETTE INTO TEST TUBES

	BLANK	STD	SAMPLE
SAMPLE	-	-	10 µl
STANDARD	-	10 µl	-
REAGENT	1000 µl	1000 µl	1000 µl

Mix, Incubate for 5 mins. at 37°C (or 10 mins. at 20 - 25°C)
Measure absorbance of Sample (AT) and Standard (AS) against Reagent blank at 505nm.
The colour is stable for at least 30 mins.

CALCULATIONS

$$\text{Cholesterol Mg/dl} = \frac{\text{Abs.of Sample (AT)}}{\text{Abs.of Standard (AS)}} \times \text{Standard Value (200)}$$

LINEARITY

The method is linear upto a concentration of 1000 mg/dl. Dilute samples above this concentration 1:1 with 0.9% saline solution and repeat assay. Multiply the result by 2.

QUALITY CONTROL

It is recommended to run a normal and a pathological control serum which is commercially available to verify the performance of the measured procedure. The value of controls should fall within the established limit.

REFERENCE VALUES

Normal	< 200 mg/dl
Borderline - High	220 - 239 mg/dl
High	> 240 mg/dl

BIBLIOGRAPHY

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