

LDL – CHOLESTEROL

Enzymatic Colorimetric Method 100 Tests

PRINCIPLE :

Low density lipoproteins (LDL) are precipitated by heparin at their isoelectric point (pH 5.04). After centrifugation the high density lipoproteins (HDL) and the very low density lipoproteins (VLDL) remain in the supernatant. These can then be determined by enzymatic methods .

LDL-cholesterol= Total cholesterol – cholesterol
In the supernatant..

SAMPLE

Serum

NORMAL VALUE :

< 150 mg / dL

REAGENTS :

1.	Precipitating Reagent: Heparin Citrate buffer ,pH 5.04	50,000 IU / L 50 mmol /L
2.	Standard cholesterol	50 mg / dL (1.29 mmol/L)
	Additional Reagent: Cholesterol Kit	

STABILITY :

The reagents are stable up to the expiry date specified when stored at +4 to +8 °C .

PROCEDURE:

Precipitation :

Sample	0.05 ml
Precipitating reagent (R1)	0.5 ml

Vortex, let stand 10 min., centrifuge for 15 min. at 4000 rpm.

Measure Cholesterol in the supernatant using the same enzymatic method for total Cholesterol.

Determination of Cholesterol in supernatant :

	Blank (ml)	Standard (ml)	Sample (ml)
Distilled water	0.05	-	-
Standard (R2)	-	0.05	-
Supernatant	-	-	0.05
Working reagent	1.00	1.00	1.00

Mix, incubate at 37°C for 10 min. Read absorbance of sample (A_{Sample}) and standard (A_{Standard}) against the blank at 500 nm, (495 – 550 nm).

CALCULATION :

Conc. of cholesterol in the supernatant:

$$= \frac{A_{\text{Sample}}}{A_{\text{Standard}}} \times \text{standard} \times 11 \text{ (dil. Factor)}$$

Calculation of the LDL- cholesterol:

LDL-choL.=Total chol – chol.in the supernatant.

CLINICAL INTERPRETATION

	mg/dl	mmol/l
No treatment required	<150	3.9
Suspect range	150-190	3.9-4.9
Treatment required	> 190	>4.9

QUALITY CONTROL :

For accuracy and reproducibility control:-
Assayed Multi – Sera, Normal and Elevated

REFERENCES :

H.Wieland and D. Seidel, J lipid Res.24, 904 (1983).

LDL – Cholesterol

Enzymatic Colorimetric Method

Precipitating Reagent
+4 to +8°C **100 Tests**
In vitro diagnostic use

CAT. No. **CH 12 31**

REAGENTS

R1 Precipitating reagent **50 ml**
R2 Standard **5 ml**

CONTACTS

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