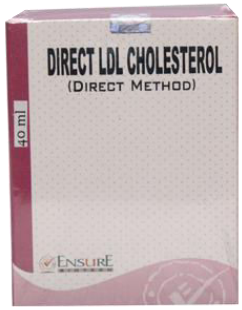
DIRECT LDL CHOLESTROL



SUMMARY & PRINCIPLE

1. LDL Cholesterol levels are important in the diagnosis and classification of hyperlipoproteinaemias Measurement of LDL cholesterol levels can serve as an indicator of tendency towards coronary artery disease.
2. The reagent is for use on automated clinical chemistry analyzers

Cholesterol esters (LDL Part) → Cholesterol + Fatty Acids

Cholesterol (LDL Part) + O2 → H_2O_2, + Cholestenone

H_2O_2 + Chromogen → Blue Dye + H_2O

REAGENT COMPONENTS

The following components are present in :

Reagent 1 : Goods Buffer 20 mmol/l, pH 7.0, HDAOS 1mmol/l

Reagent 2 : Goods buffer 20 mmol/l, pH 7.0. COD 1.0 U/ml, CE 5.0 U/ml, POD 15 U/ml, 4-AAP 3.0 mmol/l.

Stabilizers, inactive ingredients and surface active agents.

REAGENT

- **Ready to use.**
- ✓ Stable up to expiry at 2^0- 8^0C
- ✓ Stable for 30 days when opened and refrigerated on the analyzer.

APPLICATION PROGRAMME

Refer to operators manual of instrument for setting up the following programme. Employ a suitable calibrator for assay. Calibrator value of Direct homogeneous method is preferred.

Calibrator Preparation :

Calibrator should be reconsittued with 0.5 ml of Distilled water Reconstittuion stability of calibrator at 2-80 up to 7 days.

ASSAY PARAMETERS

Test Parameters :

☐ Reaction Type ... End point. ☐ReagentVol... 600µl + 200µl

☐ Wave length ... 620nm ☐ Calibrator con : As on vial

☐ Zero Setting : Reagent blank ☐ Linearity 1000mg/dl

☐ Incubation : 5mins. at 37¢ ☐ Units : mg/dl

☐ Sample Vol 6µl

MANUAL ASSAY PROCEDURE :

Prewarm at 37°C take the required amount of reagent before use.

	Blank	Calibrator	Test
1-LDL Cholesterol Reagent	600 µl	600 µl	600 µl
LDL Calibrator	-	6µl	-
Sample	-	-	6µl
2- LDL Cholesterol Reagent	200 µl	200 µl	200 µl

Mix well and keep at 37°C for 5mts. Read Abs of Test (T) and calibrator (C) against reagent blank at 620 nm

CALCULATIONS

LDL-c (mg/dl) = absT ÷ abs c x conc. Of calibrator.

EXPECTED VALUES

LDL Cholesterol	< 130 mg/dl (Desirable) 130-159 mg/dl (Borderline high) 160-189 mg/dl (High) >190 mg/dl (very high)

NOTE: The reference value should be used as guide only.

MEASURING RANGE

Up to: 1000 mg/dl.

Determine sample with higher concentration via the rerun function.

INTERFERENCE

There is no significant interference in samples containing up to 40 mg/dL of free bilirubin,40mg/dL of conjugated bilirubin,500 mg/dL of haemoglobin and 100 mg/dL ascorbic acid.

QUALITY CONTROL

Inclusion of a normal value and abnormal value chemistry control serum in each test run ensures optimum quality control.
Consistent use of same type and methodology of control serum provides between run precision and accuracy data.
We recommend to produce such data on daily basis for greater accuracy in assay system which include reagents, instrument, apparatus and operator.

NOTE:

LDL Reagents include ingredients which may affect magnesium assays, therefore it is recommended to wash the cuvettes thoroughly after using the reagents. Recalibrate the instrument (with freshly reconstituted calibrator) if control sera values shows inaccurate results.

BIBLIOGRAPHY

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