



CHOLESTEROL-ENZYMIC METHOD
FOR BECKMAN CX AND LX SYSTEMS

CHOL

INTENDED USE

This reagent is for the use of quantitative determination of cholesterol in serum or plasma.

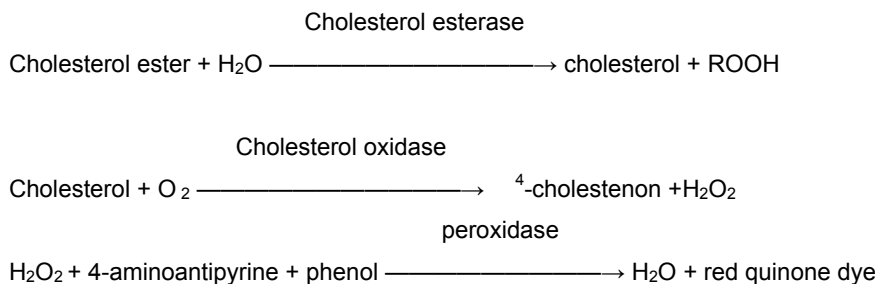
CLINICAL SIGNIFICANCE

Total cholesterol in the blood is elevated in idiopathic hypercholesterolemia, both primary and secondary hyperlipidemias, diabetes mellitus, nephrotic syndrome, hypothyroidism and biliary obstruction. Pregnancy may also accompanied by a moderate increase of cholesterol level.

Decreases of cholesterol are seen in patients with severe hepatitis and occasionally in severe anemia or infection.

PRINCIPLE

Human serum contains a mixture of free and esterified cholesterol, both of which are measured to determine the total cholesterol. The cholesterol esterase converts cholesterol ester to free cholesterol, which is then oxidized by the cholesterol oxidase to yield cholest-4-en-3-one and hydrogen peroxide. The hydrogen peroxide reacts with 4-aminopyridine and phenol, in the presence of peroxidase, to produce an intense red chromophore.



SPECIMEN COLLECTION AND PREPARATION

Serum or heparinized plasma is recommend. The use of oxalate, citrate, fluoride and EDTA results in slightly lower cholesterol values.

REAGENT

- Each kit contains 2 cartridge of total cholesterol reagent(2×300 tests).
- Ready to use
- Components:

cholesterol esterase,	200 u/l	cholesterol oxidase	1000u/l
peroxidase	5000u/l	4-aminopyridine	0.28mM
phenol	7.8 mM		

STORAGE: 2~8

PRECAUTIONS:

1. For in vitro diagnostic use only.
2. Since all specimens are potentially infectious, they should be handled with appropriate precautions and practices in accordance with Biosafety level 2 as recommended by USA NIH manual Biosafety in Microbiological and Biomedical Laboratories, and in accordance with National or local regulations related to the safety precautions of such materials.
3. Each laboratory has to perform the quality control test to assure the results being reliable before running the



specimen tests.

PROCEDURES: Use bar code reading to follow the Beckman CX4 and LX-20 parameters and procedures.

EXPECTED VALUE:

130~250 mg/dl (3.4~6.5 mmol/l)

NOTE: It is generally recommended that each laboratory establish its own range of normal values for commonly performed tests.

REFERENCES:

1. Allain, c.c., et.al. Clinic. Chem. 20:470,1974.
2. Flegg HM: Ann: Clinic. Biochem. 10:79,1973.
3. Richmond W.: Clinic. Chem. 19:130, 1973.
4. Tarbutton P.N. and Gunter C.R.Clin. 20:724,1974.