Total Cholesterol

Version: 1
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Summary: Procedure used to determine the total concentration of cholesterol present in blood, serum, and plasma. Cholesterol esters are hydrolysed by cholesterol esterase. Cholesterol is then oxidized by cholesterol oxidase with formation of hydrogen peroxide. Peroxidase uses the hydrogen peroxide, phenol, and 4-aminotipyrine to form a quinoneimine dye which is measured at 500 nm.

Reagents and Materials:

Reagent/Material	Vendor	Stock Number
Cholesterol Rapid Liquid Reagent	Cliniqa	R85464
Multi Analyte Calibrator	Prolabs	R60010
Assayed Control Serum 1	Prolabs	R83082
Assayed Control Serum 2	Prolabs	R83083

Protocol:

Analysis by automated system Cobas Mira Plus

1) Calibrate Cobas for Total Cholesterol analysis by running a multi analyte standard and two control serum.

2) Sample handling as performed by Cobas Mira Plus.

- **a)** Pipette 3 µL of sample into a cuvette slot.
- **b)** Add 275 µL of Cholesterol Rapid Liquid Reagent.
- **c)** Mixture is incubated at 37˚C for 10 minutes.
- **d)** Absorbance is measured at 500nm.

Reagent Preparation:

Cholesterol Rapid Liquid Reagent: As supplied by vendor

Multi Analyte Calibrator: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

Assayed Control Serum 1: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

Assayed Control Serum 2: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.