ACCUCARE

TRIGLYCERIDES

Enzymatic colorimetric test – GPO PAP

Quantitative Determination of Triglycerides in Serum/Plasma
Only f*or In vitro Diagnostic* Use

ORDER INFORMATION

REF	Cont.
TGLSLR 25	1 X 25 ml
TGLSLR 125	5 X 25 ml
TGLSLR 200	4 x 50 ml

CLINICAL SIGNIFICANCE

Triglycerides are fats that provide energy for the cell. Like cholesterol, they are delivered to the body's cells by lipoproteins in the blood. A diet with a lot of saturated fats or carbohydrates will raise the triglyceride levels. The increases in serum triglycerides are relatively non-specific. For example liver dysfunction resulting from hepatitis, extra hepatic biliary obstruction or cirrhosis, diabetes mellitus is associated with the increase . Clinical diagnosis should not be made on a single test result; it should integrate clinical and other laboratory data.

PRINCIPLE

Triglycerides are determined after enzymatic hydrolysis with lipases. The quinonemine indicator is formed from hydrogen peroxide, 4-aminophenazone, and 4-chlorophenol under the catalytic influence of peroxidase.

REAGENT COMPOSITION

Reagent I : Triglyceride reagent
Triglyceride Standard : 200 mg/dl (2.25 mmol/L)

SAMPLE COLLECTION AND PRESERVATION

Serum, heparinised plasma or EDTA plasma.
Stability : 5-7 days at 2 - 8°C. 3 months at -20°C.

REAGENT PREPARATION

Reagent is ready to use.

REAGENT STORAGE AND STABILITY

Reagent is stable till the expiry date at 2-8°c .

AUTOMATED PARAMETERS	
Wavelength	505 nm
Reaction Type	End Point
Cuvette	1 cm light path
Reaction Temperature	37°C
Measurement	Against Reagent Blank
Sample Volume	10µl
Reagent Volume	1000µl
Incubation	5 minutes
Blank Absorbance limit	<0.300
Low Normal at 37°C	40 mg/dl (0.45 mmol/L)
High Normal at 37°C	165 mg/dl (1.86 mmol/L)
Linearity at 37°C	1300 mg/dl (14.68 mmol/L)

MANUAL ASSAY PROCEDURE

PIPETTE INTO TEST TUBES

	BLANK	STD	SAMPLE
Sample	-	-	10µl
Standard	-	10µl	-
Reagent	1000µl	1000µl	1000µl

Mix well, 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 505 nm.

The colour is stable for 30 min. at 20 - 25° C.

CALCULATION

Triglycerides (mg/dl) = AT/AS x conc. Std.

LINEARITY

The method is linear upto a concentration of 1300 mg/dl (14.68 mmol/L). Dilute samples above this concentration 1:1 with 0.9% saline and reassay. Multiply the result by 2.

REFERENCE VALUE

Recommended (desirable) Triglycerides levels for adults:

Male	40 - 160 mg/dL (0.45 - 1.81 mmol/L)
Female	35 - 135 mg/dL (0.40 - 1.53 mmol/L)

INTERFERENCES

Icterus: No significant interference of conjugated bilirubin upto 12 mg/dL.and unconjugated bilirubin concentration upto: 27 mg/dl).

Hemolysis: No significant interference up to 600 mg/dl)

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.

BIBLIOGRAPHY

Buccolo G., David M., Clin. Chem, 19, (1973), 476

LAB-CARE DIAGNOSTICS (INDIA) PVT. LTD.
C1 Type, Shed No. 3225, Chemical Zone, GIDC Sarigam,
SARIGAM - 396 155 (Dist. Valsad). INDIA
Tel : 91-22-2554 2109 / 2554 1558 . Fax : 2554 3541
Email : accucare@labcarediagnostics.com
Website : www.labcarediagnostics.com