TRIGLYCERIDES SL

Enzymatic Colorimetric Method
Liquid Reagent ready to use

REF. 0073/50	**2x 50 ml**
REF. 0075/50	**4x 50 ml**
REF. 0073	**2x100 ml**
REF. 0075	**4x100 ml**
REF. 0097	**4x250 ml**
REF. 0075L	**1x1000 ml**

CE
IVD

Azienda certificata DNV

GIESSE DIAGNOSTICS

INTENDED USE

Quantitative determination of triglycerides in serum and plasma.

PRINCIPLE

Triglycerides are hydrolized by lipoproteinlipase (LPL) to produce glycerol and free fatty acids. The glycerol participates in a series of coupled enzymatic reactions, in which glycerol kinase (GK) and glycerol phosphate oxidase (GPO) are involved and H_2O_2 is generated.
The Hydrogen peroxide reacts with TOOS and 4-AAP to form a colored complex, whose color intensity is directly proportional to the concentration of triglycerides in the sample.

SAMPLE

Serum, plasma with heparin, obtained from patients fasted for at least 10-12 hours. Do not use highly hemolyzed or icteric samples.
Store samples at 2-8°C before analysis, do not store samples at room temperature as phospholipids may hydrolyze, releasing free glycerol and falsely elevating triglycerides value.
Freeze the sample if not tested within 24 hours.

KIT COMPONENTS

Reagent (A) Volume = 50/100/250/1000 ml	Good buffer Magnesium chloride ATP 4-AAP TOOS LPL (lipoproteinlipase) POD (peroxidase) GK (glycerol kinase) GPO	100 mmol/l 15 mmol/l 4 mmol/l 1 mmol/l 0.1 mmol/l 2500 U/L 1800 U/L 1000 U/L 5500 U/L
Standard Volume = 10 ml	Glycerol	200 mg/dl (2.28 mmol/l)

The reagents are stable until the expiration date indicated on the label if stored at 2-8°C and protected from light. Do not freeze. Once opened reagents are stable for 2 months at 2-8°C if contamination is avoided.
Keep bottles closed when not in use.

REAGENTS PREPARATION

Liquid Reagent, bring to room temperature (15-25°C) before use.
The light color of the reagent (< 0.050 O.D.) due to air or light does not affect their operation.

PRECAUTIONS AND WARNINGS

Reagents may contain some non-reactive and preservative components. It is suggested to handle carefully it, avoiding contact with skin and swallow.
Use the normal precautions required in the laboratory.
Dispose of waste according to local laws.

PROCEDURE

Wavelength:	546 nm (520 – 570)
Lightpath:	1 cm
Temperature:	37°C
Reading:	against blank reagent
Method:	Increasing End Point
Sample/Reagent:	1/100

pipette:	**blank**	**sample**	**standard**
Reagent (A)	1000 µl	1000 µl	1000 µl
water	10 µl		
sample		10 µl	
standard			10 µl

Mix, incubate at 37 °C for 5 minutes, read against blank reagent the absorbance of the sample (Ax) and the standard (As).

Volumes can be proportionally modified.

This method describes the manual procedure to use the kit.
For automated procedure, ask for specific applications.

RESULTS CALCULATION

Triglycerides mg/dl = Ax/As x 200 (standard value)

EXPECTED VALUES

Serum/plasma < 200 mg/dl

Each laboratory should establish appropriate reference intervals related to its population.

QUALITY CONTROL

You must perform the controls at each kit's use and verify that the values obtained are within the reference range reported in the operating instructions. For this purpose we recommend the use of control sera: PRECISENORM (REF.6000) and PRECISEPATH (REF.6001).

PERFORMANCE

Sensitivity: the sensitivity of the method is: 3 mg/dl.
Linearity: the method is linear up to 1000 mg/dl. For higher values, dilute the sample 1:10 and multiply the result by 10.
Precision intra-assay:

	Level 1	Level 2
Mean (mg/dl)	125.6	199.2
DS	3.6	6.1
CV %	2.9	3.1

Precision inter-assay:

	Level 1	Level 2
Mean (mg/dl)	121.1	199.9
DS	4.5	7.0
CV %	3.7	3.5

Interferences: bilirubin does not interfere up to 10 mg/dl. Hemoglobin does not interfere up to 500 mg/dl.
Correlation against a reference method: Y = 1.0861x+ 3.1742 r = 0.9996

REFERENCES

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