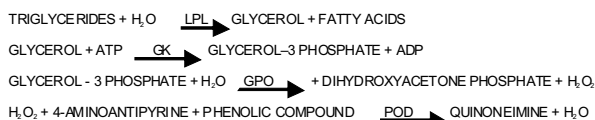


This reagent kit is for quantitative estimation of Triglycerides in serum/plasma.

## PRINCIPLE:

The triglycerides present in the serum is catabolised into glycerol and free fatty acids by lipoprotein lipase. Liberated glycerol is converted to glycerol-3-phosphate in presence of glycerol kinase and ATP. Glycerol 3 phosphate is acted upon by glycerol-3-phosphate oxidase to form hydrogen peroxide. This together with phenolic compound and 4-Aminoantipyrine in presence of peroxidase gives the purple colour complex. The intensity of the colour is measured at 546 nm (530-570 nm) or green filter and corresponds to the triglycerides concentration.



## CLINICAL SIGNIFICANCE:

Serum triglyceride estimation is a significant and important aspect of the lipid profile test. It is important in hyper lipoproteinemia investigation. Elevated levels are seen in arteriosclerosis, diabetic mellitus, glycogen storage disease like Von Gierke's disease, alcoholism and nephrotic syndrome.

## SPECIMEN COLLECTION AND STORAGE:

- \* Fresh, fasting, unhemolysed serum sample is preferred.
- \* Plasma collected with heparin or EDTA as anti coagulant may be used.
- \* Serum triglyceride are slightly (5 mg/dl) higher than plasma levels.
- \* Samples are stable for 2 days when stored at 2-8° C.

## PRECAUTION:

- \* Estrom Triglyceride reagent is for In Vitro diagnostic use only.

## REAGENTS:

All the reagents are to be stored at 2-8° C

	No. of Bottles	
	12x1.1 ml	5X10 & 5x20 ml
Reagent 1 (Enzyme Chromogen)	12	5
Reagent 2 (Phenol)	1	5
Standard (200mg/dl)	1	1

## REAGENT RECONSTITUTION:

- A) **12 x 1.1 ml:** Add 1.1 ml of Reagent 2 (Phenol) to the vial containing Reagent 1 (Enzyme Chromogen). Mix. Wait for 5 minutes before use.
- B) **5 x 10 & 5 x 20 ml:** Transfer the contents of 1 vial of Reagent-1 (Enzyme Chromogen) to the bottle containing Reagent-2 (Phenol) Mix. Wait for 5 minutes before use.

## REAGENT STORAGE AND STABILITY:

All the reagents are stable up to expiry date indicated on the bottle label. Working Reagent is stable for 15 days when stored at 2-8° C. Protect from light. A pink colour of working reagent (0.2) due to aging of reagent does not affect the test results.

## GENERAL INSTRUMENT PARAMETERS

Reaction Type	: End Point
Std. Conc.	: 200 mg/dl
Slope of Reaction	: Increasing
Units	: mg/dl
Wavelength	: 546 nm (530-570 nm)
Incubation	: 5 Minutes
Flowcell Temperature	: 37°C
Zero Setting	: Reagent blank
Reagent Volume	: 1.0 ml
Path length	: 1.0 cm
Sample Volume	: 10 µl (0.01 ml)

Dispense	Blank	Std.	Test
Working Reagent	1.0 ml	1.0 ml	1.0 ml
Standard	-	10 µl	-
Sample	-	-	10 µl

Incubate at 37° C for 5 minutes.

Mix well and read at 546 nm (530-570 nm) or against green filter.

## STABILITY OF REACTION MIXTURE:

The colour of the reaction mixture is stable for 30 minutes when stored at room temperature, protected from light.

## LINEARITY:

This method is linear for Triglycerides values up to 800 mg/dl. For samples with values higher than 800 mg/dl, dilute the sample using normal saline, and repeat the assay. Apply proper dilution factor while calculation.

## CALCULATION:

$$\text{Concentration of Triglycerides in sample mg/dl} = \frac{\text{Abs. of Test}}{\text{Abs. of Std.}} \times 200$$

## REFERENCE VALUES:

Serum Triglycerides

Male	65-170 mg/dl
Female	45-145 mg/dl

It is recommended that each laboratory establish its own reference values.

## BIBLIOGRAPHY:

- \* FOSSATI, R, LORENZO, P., Serum Triglycerides determined colorimetrically with an enzyme, that produces hydrogen peroxide, Clin. Chem 28, 2077-2080 (1982).
- \* McGOWAN, M.W., ARTISS, J.D., STRANDBERG, D.R., ZAK, B.A. Peroxidase coupled method for the colorimetric determination of serum triglycerides, Clin. Chem. 29, 538-452 (1983).

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	Attention, see instructions for use		Consult Instructions For Use
	For in vitro diagnostic use only		Catalog #
	Store between 2-8°C		Lot Number
	Do not use if package is damaged		Date of Manufacturing
	Manufacturer		Use by