

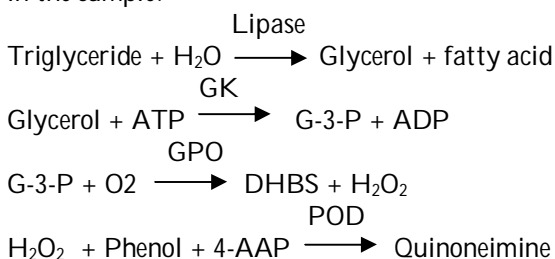
# BHAT BIOSCAN™

Pack size. TGL 1 X 20ml  
1 x 50ml  
1x 100ml

## TRIGLYCERIDES-GPO-PAP

### Principle:

Triglyceride upon hydrolysis with lipase releases glycerol and fatty acids. The glycerol is converted to glycerol-3-phosphate (G-3-P) using ATP by the action of glycerol kinase (GK). Glycerol-3-phosphate oxidase (GPO) catalysis the oxidation of the G-3-P to produce dihydroxyacetone phosphate (DHBS) and H<sub>2</sub>O<sub>2</sub>. In further reaction, quinoneimine is formed from H<sub>2</sub>O<sub>2</sub>, 4-aminoantipyrine and 4-chlorophenol under the catalytic influence of peroxidase (POD). The intensity of the colour formed is proportional to the concentration of triglyceride in the sample.



### Reagent Composition:

1. Triglyceride reagent	
Pipes buffer pH 7.2	50mmol/L
4-Chlorophenol	10mmol/L
4-AAP	50mmol/L
ATP	0.3mmol/L
Mg Cl <sub>2</sub>	0.5 mmol/L
Lipase	4000U/L
Glycerol kinase	800 U/L
Glycerol-3-P oxidase	15000 U/L
POD	550U/L
2. Triglyceride standard	200mg/dl

### Reagent Preparation:

Reagent is ready to use.

### Storage & Stability:

Store at 2-8° C, and keep away from light. Unopened reagent is stable until expiry date stated on the label.

Cat. No. TGL - 20

Cat. No. TGL - 50

Cat. No. TGL-100

### Sample:

Unhemolysed serum or heparinised plasma can be used.

### Procedure:

Let stand reagents and specimens at room temperature.

Tube	Blank	Standard	Sample
Reagent	1000µl	1000 µl	1000 µl
Standard	-	10 µl	-
Sample	-	-	10 µl

Mix and Incubate @ 37 °C for 10min. or 20 min. @ 25 - 28 °C. Read the absorbance at 500 (460-560nm) against reagent blank.

### Calculations:

Calculate the result as follows:

$$\text{Triglyceride (mg/dl)} = \frac{A_{\text{sample}}}{A_{\text{standard}}} \times \text{Std. con.}$$

### Expected Value:

Adult : upto 150mg/dl

Each lab should optimize its own normal range.

### Quality Control:

The assay linear up to 600mg/dl . Use always QC sera to analyze the performance of the assay.

### Reference:

1. Young, D, Pestaner, L. Clin. Chem.21,5 (1975)
2. Fossati ,P, Principe, L. Clin. Chem. 28, 2077 (1982).

