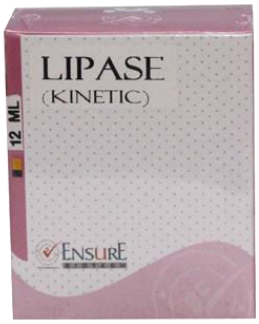
LIPASE



INTENDED USE :

This reagent kit is intended for "in vitro" quantitative determination of LIPASE activity in serum & plasma.

CLINICAL SIGNIFICANCE:

Lipases are glycol proteins with a molecular weight of 47000 Daltons. Lipase hydrolyzes the ester linkages. Specifically, lipase catalyzes the partial hydrolysis of dietary triglycerides in the intestine to the 2monoglyceride intermediate, with the production of long chain fatty acids.

PRINCIPLE:

The chromogenic lipase substrate 1, 2-O-dilauryl-rac-glycero-Bglutaric acid-(6-methylresorutin)-ester is cleaved by the catalytic action of alkaline lipase solution to form 1,2-O-dilauryl-rac-glycerol and an unstable intermediate glutaric acid-(6-methylresoruhn)-ester. This decomposes spontaneously in alkaline solution to form glutaric acid and methylresorufin. The color intensity of the red dye formed is directly proportional to lipase activity and can be determined photometrically.

REAGENT COMPOSITION:

Reagent 1 : Butler Reagent

Reagent 2 : Substrate Reagent

Lipase Calibrator Concentration : Printed on the Vial.

SAMPLES:

Li-, Na- vagy NH_4 -heparin plasma,serum. EDTA-, oxalate-, fluoride or citrated plasma lead to decreased results.

WORKING REAGENT PREPARATION & STABILITY

Reagent 1 & Reagent 2 are Ready to use and are stable up to the expiry date stated on the label. LIPASE Calibrator : Dissolve with 1.0 ml of distilled water. Cap and mix gently to dissolve contents. Reconstituted calibrator is stable for 7 days at 2 to 8°C or 3 months at -20°C; aliquots into small volumes and freeze.

GENERAL SYSTEM PARAMETERS:

Reaction type	Fixed Time
Wave length	580 nm
Light Path	1 cm
Reaction Temperature	37^0 C
Blank/ Zero Setting	With Distilled Water
Reagent Volume	1.2 ml
Sample Volume	10 µl
Lag Delay Time	60 Sec
Read Time	60 Sec
Interval Time	60. Sec
Calibrator Concentration	Printed on Vial
Low Normal at 37°C	13 U/l
Hi h Normal at 37°C	60 U/l
Linearity	250 U/l

ASSAY PROCEDURE:

	Calibrator	Sample
Reagent 1	1000 µl	1000 µl
Calibrator	10 µl	
Sample		10 µl

Mix and incubate for 60 second and then add

Reagent2	200 µl	200 µl

Mix and after 60 second incubation, measure the change in absorbance for 60 seconds at 37°C.

Determine the ΔAbsorbance.

CALCULATION :

Lipase Activity (U/l) = (Δ Abs. of Sample/Δ Abs. of Calibrator) X Conc. of Calibrator

LINEARITY :

Reagent is Linear up to 250 U/l.

Dilute the sample appropriately and re-assay if Lipase Activity exceeds 250 U/l.

REFERENCE NORMAL VALUE:

Serum Lipase activity : 13 60 U/I

It is recommended that each laboratory should assign its own normal range.

QUALITY CONTROL:

For accuracy it is necessary to run known controls with every assay.

LIMITATION & PRECAUTIONS:

1. Storage conditions as mentioned on the kit to be adhered.
2. Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
3. Before the assay bring all the reagents to room temperature.
4. Avoid contamination of the reagent during assay process.
5. Use clean glassware free from dust or debris.

BIBLIOGRAPHY:

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