ACCUCARE

LIPASE

Kinetic chromogenic substrate.

Quantitative determination of LIPASE in serum/plasma
Only for *In Vitro* Diagnostic Use

ORDER INFORMATION

REF	CONT.
LIPSLR	1x10 ml
LIPSLR	1x20 ml

CLINICAL SIGNIFICANCE

Lipase is a pancreatic enzyme necessary for the absorption and digestion of nutrients that catalyzes the hydrolysis of glycerol esters of fatty acids. Determination of Lipase is used for the diagnosis of diseases of pancreas such as acute and chronic pancreatitis and obstruction of pancreatic duct.

PRINCIPLE

The pancreatic lipase in presence of colipase, desoxycholate and calcium ions hydrolyses the substrate 1-2-O-dilauryl-rac-glycero-3-glutaric acid-(6'methylresourfin)- ester. to 1-2-O-dilauryl-rac-glycerol and Glutaric(6'methylresourfin)- ester which is monitored as increase in the absorbance. The rate of methylresorufin formation measured photometrically is proportional to the catalytic concentration of lipase present in the sample.

REAGENT COMPOSITION

Reagent I : Buffer Reagent
Reagent 2 : Substrate Reagent
Lipase calibrator : (Lyophilized) Human Serum.

SAMPLE COLLECTION AND PRESERVATION

Use non haemolysed serum collected without prolonged venous stasis. Specimen are stable for at least 2 days when stored at 4℃.

REAGENT PREPARATION AND STORAGE

R1 - Ready to use stability after opening 90 days at 2-8 deg c
R2 - Mix gentle before use

Lipase calibrator : dissolve with 0.5 ml of D/W cap and mix gently to dissolve contents. stability ; 7 days at 2-8° or 3 months at -20℃ aliquote into small volume and freeze.

REAGENT STORAGE AND STABILITY

Up to expiry date when stored tightly closed at 2-8℃ protected from light and contaminations during the use.

REFERENCE VALUES

Serum/plasma	< 60 IU/L

The reference values are to be considered as indicative only.
Every Laboratory should establish its own normal ranges.

Procedure changed Please check reagent volume.

AUTOMATED PARAMETERS	
Wavelength	578 nm
Reaction Temperature	37 deg c
Measurement	Against D/W
Reaction	Fix time Kinetic
Reaction Direction	Increasing
Sample Volume	20 µl
Reagent Volume	800 + 200 µl
Delay	120 Sec.
Interval	120 Sec.
Low normal	5 U/L
High Normal	60 U/L
Linearity	250 U/L

MANUAL ASSAY PROCEDURE

PIPETTE INTO TEST TUBES

	Calibrator	SAMPLE
Reagent 1	800 µl	800 µl
Sample	-	20 µl
Calibrator	20 µl	-
Mix Well and Incubate for 2-3 min.		
Reagent 2	200 µl	200 µl

Mix well and incubate at 37℃ for 120 Sec. (Delay Time). Measure the absorbance increase for 120 Sec. (Interval Time) and determine the Δ Absorbance for sample (ΔA_{sample})And Calibrator ($\Delta A_{calibrator}$) .

CALCULATION

$$\text{LIPASE (IU/L)} = \frac{(\Delta A_{sample})}{(\Delta A_{calibrator})} \times \text{Calibrator Value}$$

The method is linear upto a concentration of 250 IU/L.
If the concentration exceeds this value, the sample should be diluted 1:1 with 0.9% saline solution and reassayed. Multiply the result by 2.

LINEARITY

The method is linear to a concentration of 250 U/L

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

Tietz N.W et al Clinical guide to laboratory tests 3rd ed AACC 1995

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