CORALYZER
System Pack
Lipase Kit
(Colorimetric Method)

For the determination of lipase activity in serum/plasma.

(For Invitro Diagnostic Use Only)

Summary

Lipases are enzymes which hydrolyse glycerol esters of long chain fatty acids. The enzymes and its cofactor, colipase is produced in the pancreas, lipase being also secreted in small amounts by the salivary glands as well as by the gastric, pulmonary and intestinal mucosa. Bile acids and colipase from micellar complexes with the lipids and bind lipase on the substrate water interface. Determination of lipase is used for investigation of pancreatic disorders. In acute pancreatitis the lipase concentrations rise 2-50 fold the upper reference limit within 4-8 hrs after beginning of abdominal pain peaking at 24 hours and decreasing within 8-14 days. Elevated lipase values can also be observed in chronic pancreatitis and obstruction of the pancreatic duct.

Principle

In the presence of colipase and bile acids lipase splits the synthetic substrate (1,2-O-Dilauryl-rac-glycero-3-glutaricacid (6-methyl-resorufin-ester) to glycerol and methylresorufin. The rate of methylresorufin formation, measured photometrically is propotional to the catalytic concentration of lipase present in the sample.

Normal reference values

Serum / Plasma: Upto 60 U/L at 37^{0}C

It is recommended that each laboratory establish its own normal range representing its patient population

Contents

Coralyzer 100 System packs	**25 ml**
L1: Buffer Reagent	20 ml
L2: Substrate Reagent	5 ml

Coralyzer 200 System packs	**25 ml**
L1: Buffer Reagent	20 ml
L2: Substrate Reagent	5 ml

Storage / stability

Contents are stable at 2 - 8^{0}C till the expiry mentioned on the labels.

Reagent preparation

Reagents are ready to use.

Sample material

Serum or plasma with sodium citrate, EDTA or heparin.

Lipase is reported to be stable in serum for 5 days at 2-8°C.

Calibration

Calibrator is recommended for calibration of this assay.

Linearity

The procedure is linear upto 300 U/L at 37^{0}C.

Note

Reagents such as Cholesterol / Triglycerides / HDL / LDL contain High Concentrations of detergents and hydrolysing enzymes, cross contamination from such reagents should be avoided.

System Parameters

The programming is available in the instrument software.

REFERENCES

1. Mc Neely, M. ; Lipase. Kaplan, A. *et al.;* Clin. Chem. The C.V. Mosby Co. St. Louis, Toronto. Princeton 1984, 1130-1135.

2. Burtis, A., et al. ; Tietz Textbook of Clinical chemistry, 3rd ed AACC.

3. Neumann, U., *et al*., Methods of Enzymatic Analysis, Vol 4,3rd ed.

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