

**DIAGNOSTIC KIT FOR DETERMINATION OF LIPASE CONCENTRATION**

**LIPASE**  
(Methyl Resorufin)

**CLINICAL SIGNIFICANCE OF LIPASE:**

Your pancreas makes enzyme called lipase. When you eat, lipase is released into your digestive tract. Lipase helps your intestines breakdown the fats in the food you're eating. Certain levels of lipase are needed to maintain normal digestive and cell function. But, abnormally high levels of the enzyme in your blood can indicate a health problem.

**PRINCIPLE:**

In the presence of colipase and bile acids, Lipase splits the synthetic substrate to glycerol and methylresorufin ester. Which is spontaneously degraded to glutaric acid and methylresorufin formation, measured photometrically is proportional to the catalytic concentration of lipase present in the sample.

**STORAGE INSTRUCTIONS AND REAGENT STABILITY:**

All the reagents are stable at 2 to 8°C. up to the expiry date mentioned on the label. Do not freeze the reagents.

**REAGENTS PREPARATION:**

Working Reagent is prepared by following proportion,

R1: Buffer Reagent	800 µl
R2: Substrate Reagent	200 µl

**SAMPLE MATERIAL:**

Serum or plasma (Free from haemolysis.)

The stability in serum/plasma: 2 days at 2° to 8°C.

**ASSAY PROCEDURE:**

1. Aspirate the standard and wait for factor
2. Add the sample to reagent tube (T), one by one, mix well, then aspirate and see the final results on the instrument.

	B	S	T
<b>DISTILLED WATER</b>	1000 µl	-----	-----
<b>R1 – BUFFER</b>	-----	800 µl	800 µl
<b>REAGENT</b>	-----	200 µl	200 µl
<b>R2 – SUBSTRATE</b>	-----	10 µl	-----
<b>REAGENT</b>	-----	-----	-----
<b>S1 – LIPASE CALIBRATOR</b>	-----	-----	10 µl
<b>SERUM</b>	-----	-----	10 µl

**Mix well & aspirate the standard & test reagents respectively against distilled water blank.**

**CALCULATION:**

$$\text{Lipase in U/L} = \frac{(\text{Abs. T2}) - (\text{Abs. T1})}{(\text{Abs. S2}) - (\text{Abs. S1})} \times \text{Calibrator Conc.}$$

Where, (Abs.T2) - Abs. of test after interval of time  
 (Abs.T1) - Abs. of test after delay time  
 (Abs.S2) - Abs. of std. after interval of time  
 (Abs.S1) - Abs. of std. after delay time

**REFERENCE VALUES:**

Serum / Plasma	13 to 60 U/L
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**“Each Laboratory should check if references ranges are transferable to its own patient’s population and determine own references ranges if necessary.”**

**PERFORMANCE CHARACTERISTICS**

**Sensitivity / Limit of Quantitation:**

0.15 U/L (8.92 µmol/l).

**LINEARITY:** up to 250 U/L.

**Specificity / Interferences:**

Haemoglobin up to 5 g/dl, ascorbate up to 62 mg/l, bilirubin up to 20 mg/dl and triglycerides up to 500 mg/dl do not interfere with the test.

**PACK SIZE:**

HLP010 1x10ml (R1: 8ml, R2: 2ml)