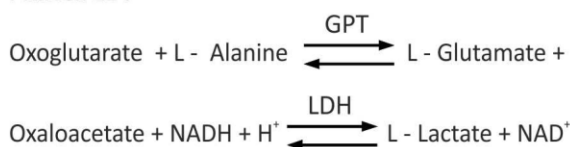


INTENDED USE : Quantitative invitro estimation of GPT / ALT in serum or plasma.

CLINICAL SIGNIFICANCE : Glutamate Pyruvate Transaminase (GPT) also known as aminotransferase (ALT) is a transaminase. GPT catalases the transfer of the amino group of L - Alanine to alfa ketoglutarate to give L- Glutamate. The highest level found in the liver and the kidneys and in smaller amount in heart and skeletal muscle. GPT concentration is increased when hepatic cells are damaged. Indeed viral and toxic hepatitis induced a marked elevation of GPT activity in serum.

METHOD : UV Kinetic Method

PRINCIPLE :



REAGENT COMPOSITION :

Reagent 1 : Buffered Enzymes

Reagent 2 : Substrate / Cofactor

MATERIAL REQUIRED BUT NOT PROVIDED :

- Clean & dry Glassware
- Micropipette & tips.
- Colorimeter or Bio Chemistry Analyser .

SAMPLES : Serum free from hemolysis, heparinised plasma or EDTA plasma

WORKING REAGENT PREPARATION & STABILITY : Reagent 1 & 2 are ready to use & are stable up to expiry date when stored at +2 – 8°C.

Working Reagent Preparation : Mix four volume of Reagent 1 with one volume of Reagent 2. The working reagent is stable for 4 weeks at +2 – 8°C.

ASSAY PROCEDURE :

Addition Sequence	Test
Working Reagent	1000 µl
Sample	100 µl

Mix & incubate for 60 second at 37°C temperature, read change in absorbance per minute during 180 second. If the absorbance changes A exceeds 0.286, dilute the sample 1:2 with Normal Saline (0.9% NaCl) and repeat the assay (result x 3).

CALCULATION : SGPT activity (U/L) = Δ A/min. x 1746

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PRECILAB REAGENTS & CHEMICALS PVT. LTD.

A / F-6 & F-8, Udyog Bhawan - 2, Plot K - 3, MIDC, Ambarnath (E), Thane, Maharashtra - 421506, INDIA.

GENERAL SYSTEM PARAMETERS :

Reaction Type	Kinetic Reaction (Decreasing)
Wavelength	340 nm
Reaction Temperature	37°C
Blank / Zero Setting	With Distilled Water
Reagent Volume	1000 µl
Sample Volume	100 µl
Lag / Delay Time	60 seconds
Read Time	180 seconds
Factor	1746
Low Normal at 37°C	0 U/L
High Normal at 37°C	40 U/L
Linearity	500 U/L
Reagent Absorbance Limit	> 0.8
Max. Δ Abs / Min.	0.286

LINEARITY : The reagent is linear up to 500 U/L. If the activity exceeds 500 U/L, dilute the sample with normal saline (NaCl 0.9%) and multiply result with dilution factor.

REFERENCE NORMAL VALUES :

Men : Up to 40 U/L

Women : Up to 31 U/L

QUALITY CONTROL : For Accuracy it is necessary to run known controls with every assay.

SENSITIVITY /LIMIT DETECTION : The Lower limit of detection is 5 U/L.

LIMITATION & PRECAUTIONS :

- Storage conditions as mentioned on the kit to be adhered.
- Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
- Before the assay bring all the reagents to room temperature.
- Avoid contamination of the reagent during assay process.
- Every time use new pipette-tips for pipetting out the reagents.
- These Reagent kits meant for laboratory/professional use only, not for Drug use.

BIBLIOGRAPHY :

Expert Panel on enzyme of the ifcc, Clin Chem. Acta, 70, PM (1976), Teitz.,N.W.