AGD

CliniPak

γ- GT

(Optimised IFCC Method)

Code	Pack Size
AGDSP - GGT50	R1 : 2 X 20 mL R2 : 2 X 5 mL
AGDSP - GGT40	R1-2x16mL R2-2 x 4mL

INTENDED USE

This reagent kit is intended for in vitro quantitative determination of γ-Glutamyl - Transferase (γ-GT) in serum or plasma.

CLINICAL SIGNIFICANCE

γ-GT plays an important role in amino transport in the course of glutathione metabolism. The enzyme present in the serum is mainly of hepato- biliary origin.

Increased levels : are observed in chronic alcoholism, toxic liver damages, intra and extra hepatic cholestasis, acute viral hepatasis, pancreatitis,neoplastic diseases of liver and pancreas, myocardial infarction as well as diabetes mellitus.

PRINCIPLE

γ-Glutamyl Transferase catalyses the transfer of the γ-Glutamyl group from L-γ-Glutamyl-3-carboxy-4-nitroanilide substrate to glycylglycine. The amount of released p-nitroaniline is proportional to the γ-GT activity of serum.

L-γ-glutamyl-3-carboxy-4-nitroanilide + Glycylglycyine $\xrightarrow{\gamma\text{-GT}}$ L-γ- glutamyl-glycylglycyine+3-carboxy-4-nitroaniline

PROCEDURE

Reagent1 + Incubation + Sample

(240µL) (60 secs) (30µL)

Reagent2 ⟶ Measurement

(60µL) (240Sec) (405nm)

REAGENT COMPOSITION

REAGENT 1

Glycyilglycine pH 8.5	≈ 200 mmol/L

REAGENT 2

MES Buffer pH 5.5	≈ 20 mmol/L
L-γ-glutamyl-3- carboxy-4-nitroanilide	≈ 25 mmol/L

STORAGE AND STABILITY

The reagent is stable till the expiry date stated on the reagent bottle label when stored at 2-8˚C and protected from sunlight.

SAMPLES

Preferably serum samples can be used, heparinised plasma can be used. Do not use hemolysed or grossly contaminated samples.

BASIC PARAMETERS

SHORT NAME	γ- GT
NAME	γ- GT
METHOD	Optimised IFCC
ASSAY	Kinetic (RATE A)
MAIN WAVE	405nm
SUB WAVE	0
DECIMAL	2
UNIT	IU/L
R1 VOLUME	240 µL
INCUBATION	60secs
R2 VOLUME	60 µL
SAMPLE VOLUME	30 µL
INCUBATION	0
MIXING SPEED	0
REACTION TIME (Delay)	60 sec
CHECK TIME (Read)	180 sec
LINEAR RANGE	0 - 300
ABSORBANCE RANGE	0-2.5
LINEARITY LIMIT	50
SUBSTRATE SHORTAGE	>2.0
DILUTION RATIO	6
SAMPLE VOLUME	50
CALIBRATION TYPE	SINGLE SPOT LINEARITY

*Enter calibrator valueas per the lot of calibrator and method.

LINEARITY

Reagent is linear up to 300 IU/L.
Dilute the sample appropriately and re-assay if γ-GT exceeds 300 IU/L.Multiply result with dilution factor.

REFERENCE NORMAL VALUE

Male: 11-50 IU/L
Female: 7-32 IU/L

QUALITY CONTROL

To ensure adequate quality control,it is recommended that the laboratory should use a normal and abnormal commercial reference control serum.The quality control material is used to check the function of reagents and the machine together.

LIMITATIONS & PRECAUTIONS

- Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
- Storage condition as mentioned on the kit to be adhered.
- Before the assay bring all the reagents to the room temperature.
- Avoid contamination of the reagent during assay process.
- Use clean glassware free from dust and debris.
- Reagent to sample ratio as mentioned above must be strictly adhered, as any changes it affects the factor and result.
- In case reagent comes in contact with eyes,immediately rinse with plenty of water and seek medical advice.

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EU REP

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