

SGOT KIT

Method: Modified IFCC Method. PRINCIPLE:

The enzymatic reaction sequence employed in the assay of SGOT is as follows:

ASAT L – Aspartate + 2 - oxoglutarate _ Glutamate +oxolutasato Oxaloacetate + NADH + H⁺ ► L - Malate + NAD⁺

REAGENT CONTENTS:

1. Reagent R1 : Ready – To – Use 2. Reagent R2 : Ready - To - Use

Avoid Contamination of Ready - To - Use Reagents. Always use fresh pipette tips. Keep always the caps tightly closed.

REAGENT PREPARATION:

Mix 4 parts of R1 with 1 part of R2. The combined reagent is stable for 4 weeks at 2° to 8° C.

STABILTY:

The above reagents R1 & R2 are Ready - To - Use and are stable until expiry dates mentioned on the label.

Note-Preincubate the reagents for 5 min at 370 C

COLLECTION AND HANDLING OF SPECIMEN:

- Serum, Heparinized or EDTA plasma can be used as a sample.
- Avoid hemolysis as red cells contain AST.
- AST-SGOT is stable in serum for 3 days at 2° 8° C.
- Pyridoxal phosphate can elevate AST values by activating the apoenzyme form of the transaminase. Pyridoxal phosphate may be found in water contaminated with microbial growth.

ASSAY PARAMETERS:

Mode : Kinetic. Wave Length : 340nm.

Cuvette : 1cm path length. Reaction Slope : Decreasing. Temperature : 37°C. Blank : Water. Reagents Volume: 1000 µl. Sample Volume: 100 µl.

: 60 sec. Reaction time : 180 sec. Number of reading: 3. Factor : 1745. Linearity : 300 IU/L. Units : IU/L.

Delay time

MANUAL ASSAY:

Pipette into cuvettes	Macro	Semi-Micro
Reagent	1000 μ1	500 μ1
Sample	100 μl	50 μl

Mix and take the first reading after 60 sec, and take THREE additional readings at 60 sec, intervals Calculate mean absorbance change per minute (A/min).

CALCULATIONS:

AST $(IU/L) = A/min \times 1745$.

EXPECTED VALUES MEN

: upto 37 IU/L

WOMEN

: upto 31 IU/L

LINEARITY

: 300 IU/L

DILUTION LIMIT:

The sample should be diluted 1 + 9 with 0.9% NaCl. Solution, if Abs. exceeds 0.17 and multiply the result by 10.

REFERENCES:

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