INTENDED USE

The TRUEchemie SGOT (AST) liquid reagent test kit is used for the direct quantitative determination of Serum Glutamate Oxaloacetate Transaminase (SGOT) or Aspartate Aminotransferase (AST) in human serum or plasma.

INTRODUCTION

Serum Glutamic Oxaloacetate Transaminase (SGOT) also known as Aspartate Aminotransferase (AST) is a tissue enzyme that catalyzes the exchange of amino and keto groups between alpha-amino acids and alpha-keto acids. SGOT is widely distributed in tissue principally cardiac, hepatic, muscle and kidney. Injury to these tissues results in the release of the SGOT (AST) enzyme to general circulation. Following a myocardial infarction, serum levels of SGOT (AST) are elevated and reach a peak in 48 to 60 hours after onset. Hepatobiliary diseases, such as cirrhosis, metastatic carcinoma, and viral hepatitis also will increase serum SGOT levels.

The first kinetic assay of SGOT for diagnostic purposes was described by Karmen et al. in 1955, using a coupled reaction of malate dehydrogenase (MDH) and NADH. This assay reagent applies the formulation recommended by the IFCC.

The TRUEchemie SGOT (AST) liquid reagent test kit is used for the direct quantitative measurement.

TEST PROCEDURE

Wavelength : 340 nm

Prewarm the reagent to reaction temperature.

Calibration

The procedures are calibrated with the standard solution which is included with each series of tests. The absorbance is used to calculate the results.

LIMITATIONS

Linearity: Up to 500 U/L
Sensitivity: 2.65 U/L

Samples that have SGOT values greater than 500 U/L should be diluted with saline (NaCl 0.9 %) 1:1, reassy and multiply the final results by 2.

INTERFERENCES

1. Hemolysis must be avoided as the concentration of AST in red cells is roughly 10 times that of serum.
2. Bilirubin levels up to 40 mg/dl does not interfere.
3. Triglyceride levels up to 2000 mg/dl does not interfere.
4. Certain drugs and other substances are also known to affect ALT values.

SYSTMS PARAMETERS

Mode : Kinetic
Factor : 1768
Wave length : 340 nm
Units : U/L
Flow cell temp : 37 °C
Blank : Distilled water
Reagent volume : 0.800 ml (R1) + 0.200 ml (R2)
Sample volume : 0.100 ml
Log time : 60 sec. (1 min.)
Read time : 180 sec. (3 min.)
Low normal : 8
High normal : 33

REFERENCES


Index of Symbols

Consult instructions for use
For in vitro diagnostic use only
Temperature limit 2-8 °C
Keep away from sunlight
Use-by date
Do not use if package is damaged
Keep dry