ACCUCARE

SGOT (AST) IFCC

Kinetic UV Test

Quantitative Determination of SGOT (AST) in Serum/Plasma
Only For In vitro Diagnostic Use

ORDER INFORMATION

REF	Cont.
GOT 25	1 X 25 ml
GOT 125	5 X 25 ml
GOT 200	4 X 50 ml
GOT 150	3 x 50 ml

CLINICAL SIGNIFICANCE

The AST is a cellular enzyme, is found in highest concentration in heart muscle, the cells of the liver, the cells of the skeletal muscle and in smaller amounts in other weaves.
Although an elevated level of AST in the serum is not specific of the hepatic disease, is used mainly to diagnostic and to verify the course of this disease with other enzymes like ALT and ALP.
Also it is used to control the patients after myocardial infarction, in skeletal muscle disease and other. Clinical diagnosis should not be made on a single test result; it should integrate clinical and other laboratory data.

PRINCIPLE

Aspartate transaminase (GOT - AST) catalyses the reaction between alpha -ketoglutaric acid and L-aspartate giving glutamate and oxaloacetate. Oxaloacetate, in the presence of malate dehydrogenase (MDH) reacts with NADH giving malate and NAD.

The rate of NADH decrease is determined photometrically and is directly proportional to the GOT activity in the sample.

REAGENT COMPOSITION

Reagent I : Buffer reagent
Reagent II : Enzyme reagent

SAMPLE COLLECTION AND PRESERVATION

Serum or plasma.
Stability 7 days at 2 - 8°C.

REAGENT PREPARATION

Mix 4 Parts (4 ml) of Buffer reagent with 1 Part (1 ml) of Enzyme reagent.

REAGENT STORAGE AND STABILITY

Prior to use:
When stored between 2-8°C the reagent is stable until the expiration date stated on the bottle and kit box label.

Reconstituted Reagent:
When stored capped at 2-8°C, the reagent is stable for at least 30 days.

REFERENCE VALUES

Serum/Plasma 0 to 35 U/l at 37°C

AUTOMATED PARAMETERS	
Wavelength	340 nm
Cuvette	1 cm light path
Reaction Temperature	37°C
Measurement	Against distilled w
Reaction Type	Kinetic test
Reaction Direction	Decreasing
Sample Volume	100 µl
Reagent Volume	1000 µl
Delay/Lag/time	60 Secs
Interval time	30 Secs
No. of Readings	04
Blank Absorbance limit	> 0.8
Factor	1746
Low Normal at 37°C	0 U/l
High Normal at 37°C	35 U/l
Linearity at 37°C	400 U/l

MANUAL ASSAY PROCEDURE

PIPETTE INTO TEST TUBES

Working Reagent	1000 µl
Sample	100 µl

Mix well and after 1 min 37°C at 340 nm read absorbance values and start timer simultaneously. Measure absorbance Decrease every 30 sec. during 2 minutes & calculate Δ A /min (Δ A/30 sec X 2)

CALCULATION

AST (SGOT) (U/L) = Δ A/min. X 1746

LINEARITY

The method is linear to a concentration of 400 U/l

QUALITY CONTROL

It is recommended to run a normal and a pathological control serum which is commercially available to verify the performance of the measured procedure. The value of controls should fall within the established limit.

NOTES

Very low initial absorbance suggest very high activity of GOT; dilute the samples appropriately and reassay. Multiply results with dilution factor. Procedure &calculation will be the same

BIBLIOGRPHY

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

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