AST/GOT SL

Kinetic Method UV - IFCC

Liquid Reagent ready to use

REF. 4191/50	**4x 50 ml**	CE
REF. 4181	**2x100 ml**	IVD
REF. 4191	**4x100 ml**	

Azienda certificata DNV

GIESSE DIAGNOSTICS

INTENDED USE

Quantitative determination of aspartate aminotransferase (AST) in serum and plasma in accordance with IFCC recommendations.

PRINCIPLE

In presence of α-ketoglutarate, AST/GOT in the sample transforms aspartate into oxalacetate and glutamate. In presence of NADH and malate dehydrogenase, oxalacetate is converted into malate and NAD.

Consuming of NADH per unit of time, measured at 340 nm, is proportional to the concentration of AST/GOT in the sample.

SAMPLE

Serum, plasma with heparin or EDTA. Do not use hemolyzed samples.

AST/GOT activity in serum is stable 3 days at 2-8°C.

KIT COMPONENTS

Reagent (A) AST Volume = 40/80 ml	Tris Buffer pH 7.8 L-aspartate LDH MDH	80 mmol/l 200 mmol/l 600 U/l 400 U/l
Reagent (B)) AST Volume = 20/40/80 ml	NADH α-ketoglutarate	0.18 mmol/l 12 mmol/l

The reagents are stable until the expiration date indicated on the label if stored at 2-8°C and protected from light. Do not freeze. Once opened reagents are stable for 2 months at 2-8°C if contamination is avoided.

Keep bottles closed when not in use.

REAGENTS PREPARATION

Liquid reagents, bring to room temperature (15-25°C) before use.

For **use as monoreagent**: add 1 part of Reagent (B) to 4 parts of Reagent (A).

The working solution (A+B) is stable 5 days at 15-25°C and 2 weeks at 2-8°C.

PRECAUTIONS AND WARNINGS

Reagent may contain some non-reactive and preservative components. It is suggested to handle carefully it, avoiding contact with skin and swallow.

Use the normal precautions required in the laboratory.

Dispose of waste according to local laws.

PROCEDURE

Wavelength:	340 nm
Lightpath :	1 cm
Temperature:	37°C
Reading:	against distilled water
Method:	Decreasing Kinetic

Use as monoreagent:

pipette:	
Working solution (A+B)	1000 µl
sample	100 µl

Mix, incubate at 37°C for 1 minute, read initial absorbance against water. Make 3 readings at a distance of 60 seconds.

Calculate the average value of the absorbance variations per minute. (ΔA/min).

Use as bireagent:

pipette:	
Reagent (A)	800 µl
Reagent (B)	200 µl
Mix and after 30 seconds add:	
sample	100 µl

Mix, incubate at 37°C for 1 minute, read initial absorbance against water. Make 3 readings at a distance of 60 seconds.

Calculate the average value of the absorbance variations per minute. (ΔA/min).

This method describes the manual procedure to use the kit.

For automated procedure, ask for specific applications.

RESULTS CALCULATION

Perform calculation in Units per litre, multiplying the ΔA/min by the factor as it is indicated:

Activity in U/L: ΔA/min x 1636 **(*)**

(*) Factor calculated in our laboratories. We recommend the use of Clinical Chemistry Calibrator (Ref. 6002/8 - 8x3 ml) to verify that this factor is correct for your test system.

EXPECTED VALUES

Women: **≤ 31 U/L**

Men: **≤ 37 U/L**

Each laboratory should establish appropriate reference intervals related to its population.

QUALITY CONTROL

You must perform the controls at each kit's use and verify that the values obtained are within the reference range reported in the operating instructions. For this purpose we recommend the use of control sera: PRECISENORM (REF.6000) and PRECISEPATH (REF.6001).

PERFORMANCE

Sensitivity: the sensitivity of the method is: 1 U/L

Linearity: the method is linear up to 450 U/L. For higher values, dilute the sample 1:10 and multiply the result by 10.

Precision intra-assay:

	Level1	Level 2	Level 3
Mean (U/l)	21.83	70.35	137.9
DS	0.732	0.789	1.101
CV %	3.35	1.12	0.80

Precision inter-assay:

	Level1	Level 2	Level 3
Mean (U/l)	23.59	70.86	139.5
DS	0.844	1.068	1.269
CV %	3.58	1.51	0.91

Interferences: bilirubin does not interfere up to 40 mg/dl. Ascorbic acid does not interfereup to 30 mg/dl. Hemolysis presence in the sample causes falsely positive results. Anticoagulants currently in use like heparin, EDTA, oxalate, fluoride do not affect the results.

Correlation against a reference method: Y = 1.0681x – 3.0802 r = 0.9712

REFERENCES

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2. Young, D.S., Effects of drugs on Clinical Lab. Tests, AACC Press, 1995.
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