

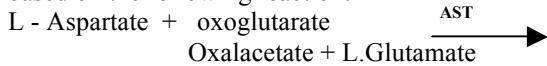


SGOT

Stable Liquid Reagent
End Point determination
Store at 2-8°C

PRINCIPLE

Colorimetric determination of aspartate Amino transferase based on the following reaction:



Oxalacetate formed reacts with 2,4 dinitrophenylhydrazine to yield a colored hydrazone that can be measured at 546 nm (530 to 550 nm)

REFERENCE VALUES

Serum: 5-35 U/l

SAMPLES

Serum free of hemolysis separated from blood cells as soon as possible after collection.

Transaminase are stable in serum for 6h at 25-35°C, 7days at 2-8°C and for one month when stored at - 20°C.

REAGENTS

R₁: GOT substrate

Phosphate buffer 7.4	100 mmol/l
L - Aspartate	200 mmol/l
2- Oxoglutarate	2.0 mmol/l

R₂ : GOT Color reagent

DNPH	1.0 mmol/l
HCl	1.0 mmol/l

R₃ : GOT Standard

Pyruvate

Materials Required but not Provided: NaOH 0.4N

Reagent 2 should be stored in the dark.

PROCEDURE

Wavelength	546 nm (530 – 550 nm)
Cuvette	1 cm light path
Zero adjustment	Distilled water
Method	Endpoint - Increasing

CALIBRATION CURVE

Pipette into test tubes (ml):

Tube No	Pyruvate R3	Substrate R1	Water	SGOT U/l
1	0	1.0	0.2	0
2	0.1	0.9	0.2	24
3	0.2	0.8	0.2	61
4	0.3	0.7	0.2	114
5	0.4	0.6	0.2	190

Add 1 ml dinitropheny hydrazine R2 mix let stand for 20 minutes at room temperature.

Add 10ml Na OH 0.4N, mix wait 5 min. Measure.

Plot the standard curve on millimeter paper:

- Abscissa: number of units/ml
- Ordinate: OD

The change in absorbance is not linearly related to the theoretical value of pyruvate produced and hence the enzyme activity.

MEASUREMENT:

	Sample
Sample	0.1ml
Solution 1	0.5 ml
Mix and let stand exactly 30 minutes at 37C.	
Solution 2	0.5 ml
Mix and let stand exactly 20 minutes at 20 to 25C.	
Na OH 0.4N	5 ml

Mix by gently inversion. Read absorbances against water after 5 minutes.

The color intensity is stable for 1 hour

Calculate the number of SGOT unites/l of serum using the standard curve

LINEARITY

If the concentration of sample exceeds 190U/l dilute 0.1 ml of sample with 0.9ml of 0.9% sodium chloride solution.

PRESENTATION

4 X 60 ml Cat No 0801 240 Tests

NOTE

- Sample and reagents volumes may be altered proportionally to fit equipment requirement.
- Time and temperature are critical and must be observed any time you run the assay.

The following symbols are used on labels



For in vitro diagnostic use



Use day (last day of the month)



Temperature limitation



Batch code



Code