

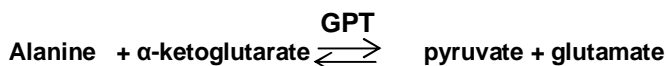
GPT (ALT) Glutamic – Pyruvic Transaminase

Colorimetric Method

200 Tests

PRINCIPLE :

Colorimetric determination of GPT (ALT) activity according to the following reactions :



The keto acid pyruvate formed is measured in its derivative form, 2,4- dinitrophenylhydrazone.

SAMPLES :

Serum. Hemolysis will interfere. Use fresh sample.

NORMAL VALUES :

GPT : up to 45 Units / mL

REAGENTS :

1.	GPT Buffer substrate : Phosphate buffer pH 7.5 Alanine α -Ketoglutarate	100 mmol/L 200 mmol/L 2 mmol/L
2.	Color Reagent : 2,4 dinitrophenylhydrazine	1 mmol/L
3.	Standard pyruvate	2 mmol/L
	Additional reagent: (available on request) Sodium hydroxide	0.4 N

STABILITY :

The reagents are stable up to the expiry date specified when stored at +4 to +8 °C .

PROCEDURE :

Set up the following tubes for each sample:

	GPT (ml)
Reagent 1	0.5
Incubate for 5 min. at 37°C	
Serum	0.1
Mix and incubate at 37°C for :	exactly 30 min
Reagent 2	0.5
Mix. Let stand for 20 min. at room temperature.	
NaOH 0.4 N	5.0
Mix. Wait 5 min. Measure the absorbances at 505 nm (490 – 520 nm) against d. Water using cuvettes 1 cm light path. The color is stable for one hour. Linearity up to 120 units/ml .	

CALCULATION :

Calculate the number of units / ml of GPT of sample using the standard curve .

QUALITY CONTROL :

For Accuracy and reproducibility control:-
Assayed Multi – Sera, Normal and Elevated.

Standard Curve

Pipette into test tubes (ml) :

Tube No.	1	2	3	4	5
D. Water	0.1	0.1	0.1	0.1	0.1
Reagent (1)	0.5	0.45	0.4	0.35	0.3
Pyruvate (R3)	-	0.05	0.1	0.15	0.2
Reagent (2)	0.5	0.5	0.5	0.5	0.5
Mix. Let stand for 20 min. at room temperature					
NaOH 0.4 N	5	5	5	5	5
Mix. Wait 5 min. Measure as for test at 505 nm					
GPT units/ ml	0	25	50	83	126

Plot the standard curve :

- **Abscissa** : number of units / ml
- **Ordinate** : OD (505 nm)

REFERENCE :

Reitman, A. and Frankel, S. (1957) : Amer J. Clin. Path ., 28 : 56.

GPT (ALT)

Glutamic - Pyruvic
Transaminase

Colorimetric Method
+4 to +8°C 200 Tests
In vitro diagnostic use

CAT. NO. AL 10 31 (45)

REAGENTS

R1 Buffer Substrate	100	ml
R2 Color Reagent	100	ml
R3 Standard Pyruvate	3	ml

CONTACTS

Tele: 02-33385184

Mobil: 0109 – 349 20 77

Fax : 02-33385184 (102)

e.maile : info@bio-diagnostic.com

Website: www.bio-diagnostic.com

Adress: 29 Tahreer St., Dokki, Giza, Egypt