Determination of Non-functional Plasma Enzyme (ALT) in Serum

Method

Prepare the following:

	Tube
ALT reagent	1 ml
Pre-warm at 37ºC for 3 minutes and add	
Sample (serum)	100 µl
Mix and incubate at 37 ºC for 1 minutes, then read the absorbance at 340 nm against distilled water (blank) every minute for 2 minutes and determine ΔA/min.	

Measure enzyme kinetics using UV-visible spectroscopy:

2) Applications → 2) Simple Kinetics → wave length (340 nm) → 1) Seconds → Duration (120 sec = 2 min) → Intervals (60 sec= 1 min) → Print Data Table (off) → Press start (2 times)

Results

	Time (min)	Absorbance at 340 nm
A_1	0	
A_2	1	
A_3	2	

Calculations

$\Delta A1 = A_1 - A_2$ $\Delta A2 = A_2 - A_3$

$\Delta A/min = (\Delta A1 + \Delta A2) / 2$

ALT Activity (U/L) = ΔA/min x 1768

ALT Activity = ...U/L