α - AMYLASE

Colorimetric Method **50 Tests**

PRINCIPLE :

The test is based on the hydrolysis of starch by amylase and the blue-black complex that forms when iodine reacts with starch. The amount of starch which remains at the end of the incubation period is shown by the addition of an iodine solution, which produces a blue black color.

The amylase activity is measured by the difference in absorbance of the starch-iodine complex of the test against that of the reagent blank in which there is no hydrolysis.

SAMPLE ;

Fresh unhaemolyzed serum or heparinized plasma. Oxalate, citrate and EDTA must not be used as anticoagulant.

NORMAL VALUES :

70 – 340 U/L

REAGENTS :

1.	**Buffered substrate**	pH 7.0, 0.4g/L
2.	**Stock iodine solution** Potassium Iodate Potassium Iodid	 20 mmol/L 250 mmol/L

STABILITY :

Stable until the expiration date specified when stored at +4 to +8°C

PROCEDURE :

Working Reagent : Dilute 1 volume of iodine solution with 9 volumes of d. water

	Blank (m1)	Sample (m1)
Buffered substrate (R1)	**0.5**	**0.5**
Incubate tube sample only at 37°C for 3 min. Then add:		
Serum or plasma	**-**	**0.01**
Mix well and incubate tube sample only at 37°C for exactly 7 ½ mins then add :		
Working Reagent	**0.5**	**0.5**
Mix well, then add :		
Distilled water	**4.0**	**4.0**

Read absorbances of sample (A_{sample}) and blank (A_{blank}) against distilled water at 660nm in case of using spectrophotometer or red filter (e.g Ilford No. 608) in case of using colorimeter. Linearity up to 700 U/L.

CALCULATION :

$$\text{Amylase activity (U/L)} = \frac{A_{Blank} - A_{sample}}{A_{Blank}} \times 1480$$

NOTE :

The test should performed exactly as specified, e.g. the temperature of the water bath must be 37°C and the incubation time measured accurately (7½ mins.)

REFERENCE :

Caraway WT, Ame. J. Clin. Pathol. (1959), 32, 97-99.

BIODIAGNOSTIC
DIAGNOSTIC AND RESEARCH REAGENTS

α - AMYLASE

Colorimetric Method
+ 4 to +8ºC **50 Tests**
In vitro diagnostic use

CAT. NO. **AY 10 50**

REAGENTS

R1 Buffered - Substrate **25 ml**
(Ready for use)
R2 Stock Iodine reagent **2.5 ml**
(Dilute 1 : 9 with d. water before use)

CONTACTS

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