Uricacid- EGD

Uricase Method

Code : 11039/40/41 (5x10 / 2x50 / 5x100 ml)

(For the analyser/Colorimetric estimation of Uric Acid in Plasma/Serum)

In VITRO USE Only.

SUMMARY & EXPLANATION OF TEST:

Uric Acid is the major product of the catabolism of endogenous & exogenous(dietary) purine nucleosides (adenosine & guanosine). This transformation mainly occurs in the liver. Approximatively 75% of Uric Acid is eliminated by kidneys,the remainder is secreted into the gastrointestinal tract, where itis degrated by bacterial enzymes.

PRINCIPLE:

Uric Acid + O_2+$2H_2O$ $\xrightarrow{\text{Uricase}}$ >Allantoine+CO_2+H_2O_2

$2H_2O_2$+ESPAS+4- AAP $\xrightarrow{\text{POD}}$ >Purple Quinoneimine+$4H_2O_2$

REAGENTS:

1. Enzyme Reagent	5x10 ml	2x50ml	5x100 ml
2. Standard (5mg%)	1 ml	1ml	2x1 ml

The reagents are stable at 2 - 8°C till the expire date mentioned on the label.

SAMPLE :

Serum/Heparinised Plasma

EXPECTED RANGE:

Males	: 3.4 - 7.0 mg / dl
Females	: 2.4 - 5.7 mg / dl

LINEARITY:

This method is linear from 0.5 to 25 mg/dl.

INSTRUCTIONS:

1. Use clean glassware to avoid contamination
2. Discard upon turbidity. Slight pink colour (up to 0.15 Abs). does not effect the performance of the reagents.

DIRECTIONS FOR USE ON ANALYSERS :

Reaction Type	:	End point with Std.
Reaction Slope	:	Increasing
Wave Length	:	546 nm
Incubation Temp	:	37°C
IncubationTime	:	10 min.
Sample Volume	:	100 µl
Reagent Volume	:	1 ml
Light path	:	1 cm
Standard	:	5 mg%
Linearity	:	25 mg/dl
Unit	:	mg/dl

PROCEDURE:

Pipette into clean, dry tubes labelled Blank (B) Standard (S) and Test (T) and add the reagents in the following order.

	B	S	T
Enzyme Reagent (ml)	1.0	1.0	1.0
Distilled Water (ml)	0.1	—	—
Standard (ml)	—	0.1	—
Serum/Plasma (ml)	—	—	0.1

Mix well and incubate at 37°C for 10 min. Measure the absorbance of Test (T) and Standard (S), against Blank (B) on a photocolorimeter or spectrophotometer at 540 nm.

CALCULATIONS:

$$\text{Uric Acid mg/dl} = \frac{\text{A of (T)}}{\text{A of (S)}} \times 5 \text{ (Std. Conc)}$$

NOTES:

★ Due to variations in inter - laboratory assay conditions, instruments and demography, it is recommended that each laboratory should establish its own normal range. To ensure adequate quality control, each run should include a normal and abnormal assayed controls. The assigned value of the control must be confirmed by this methodology.

★ Final diagnosis should be based on a co-relation of test results with other clinical observations / Diagnostic tools.

BIBLIOGRAPHY:

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3. Vassault, A., et al., Protocole de validation de techniques.(Document B,stade 3) Ann. Biol. Clin., (1986),44,686.

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