Uric Acid Test Kit

REF	Pack Size	Reagent 1	Reagent 2 (Std)
URCLMS01	2×10 ml	2×10 ml	1×2 ml
URCLMS02	5×10 ml	5×10 ml	1×2 ml
URCLMS03	4X25 ml	4x25 ml	1x2 ml

INTENDED USE
Uric acid reagent is use to quantitative estimation of uric acid concentration in human serum or plasma.

CLINICAL SIGNIFICANCE
Uric Acid is the end product of Purine metabolism. Uric acid is excreted to a large degree by the kidneys and to a smaller degree in the intestinal tract by microbial degradation.
Uricase converts to hydrogen peroxide and allantoin. The hydrogen peroxide formed further reacts with a phenolic compound and 4 amino antipyrine by the catalytic action of peroxide to form a red colored quinonimine dye complex.

METHOD: Uricase-POD

TEST PRINCIPLE
Conversion of Uric acid into allantoin and hydrogen peroxide, further reaction with chromogens in presence peroxidase leads to red dye.

$$\text{Uric Acid} + H_2O \xrightarrow[\text{Peroxidase}]{\text{Uricase}} \text{Allantoin} + H_2O_2$$

Red Dye

H_2O_2 + Phenolic Chromogens

KIT CONTENTS/COMPONENTS
Reagent 1 : Buffered Enzymes
Reagent 2 Standard : Std (6 mg/dl)

MATERIAL REQUIRED BUT NOT PROVIDED
Laboratory instrumentation, spectrophotometer UV/VIS with thermostatic cuvette holder or clinical chemistry analyzer: semi-automated, calibrated micropipettes, glass or high-quality polystyrene cuvettes, test tubes/rack, heating bath, controls, saline.

SAFETY PRECAUTIONS AND WARNINGS
1.For in-vitro diagnostics use only.
2.Do not pipette by mouth. Avoid contact with skin and eyes. If spilt thoroughly wash affected area with water.
3.Do not use the reagent after the expiration date printed on the kit.

REAGENT PREPARATION, STORAGE AND STABILITY
The reagent and standard are ready to use and are stable up to the expiry date mentioned on the label. If stored at 2 to 8°C. Stability since first opening of vials: within 60 days at 2-8°C.

REAGENT DETERIORATION
1.Discard any turbid reagent or reagent absorbance exceed 0.3 at 510 nm against distilled water.
2.Keep the Standard vial plugged after use, to avoid deterioration.

SPECIMEN
Avoid use of EDTA and fluoride as anticoagulants. Serum/plasma is stable for 7 days at 2-8°C. and 1 month at -20°C.

PROGRAM

Reaction Mode	End point
Wavelength	510 nm (500 – 560)
Light Path	10 mm
Blanking	Reagent blank
Reagent Volume	1000 µl
Standard Volume	20 µl
Sample Volume	20 µl
Incubation	5 min. at 37°C
Standard Concentration	6 mg/dl
Linearity	25 mg/dl

PROCEDURE

Addition Sequence	Blank	Standard	Sample
Reagent 1	1000 µl	1000 µl	1000 µl
Reagent 2 (Std)	----	20 µl	----
Sample	----	----	20 µl

Mix & incubate for 10 min. at Room Temperature or for 5 min. at 37°C. Read absorbance of sample and absorbance of standard against reagent blank.

CALCULATION
Concentration (C) of Uric Acid in the sample:

$$C = \frac{\text{Absorbance of sample}}{\text{Absorbance of standard}} \times 6 \text{ mg /dl (Conc of std)}$$

NORMAL VALUES
Male: 3.4 – 7.0 mg / dl
Female: 2.4 – 5.7 mg / dl

LIMITATIONS
If the value exceeds 25mg/dl dilute the sample with 0.9% saline solution rerun and result multiplied by dilution factor.

QUALITY CONTROL AND CALIBRATION
It is recommended to perform internal quality control with assayed normal and assayed abnormal, to confirm the validity of the test and assure the accuracy of patient result. Using the recommended calibrator or the Standard included, calibrate the assay.
1.When using a new reagent or lot
2.When QC values are out of range

WASTE DISPOSAL
This Product is made to be used in professional laboratories.

HIGHLIGHTS
1.The Reagents are sensitive to light & higher temperature. Reagents may develop a slight pink coloration on ageing which does not interfere with the functionality of reagent.
2.If the volume of the reagent is not sufficient to fill the cuvette, double all the specified volumes.
3.Storage condition mentioned on the kit is to be used.
4.Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
5.Before testing bring the reagents to the RT.
6.Avoid reagents contamination.
Every time use new pipette-tips for pipetting out the reagents.
7.These Reagent kits meant for laboratory/professional use only, not for Drug use.

REFERENCE
Tietz N.W., ed. Clinical Guide to laboratory Tests, 3rd ed. Philadelphia, Pa: W.B. Saunders,624 – 626.
Lords Data File.

REF	Catalog No.	Σ	Contain Sufficient for test
LOT	Batch No.		Instruction for use
	Manufacturing Date	IVD	*In-vitro* Diagnostics
	Expiry Date		Storage temperature
	Manufacturer		

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