

URIC ACID-Enzymic Method FOR BECKMAN CX AND LX SYSTEMS

UA

INTENDED USE

For the quantitative determination of Uric Acid in serum

CLINICAL SIGNIFICANCE

Uric acid is the end-product of urine metabolism in humans. It circulates and is filtered from the blood by the glomentuli. The determination of serum uric acid for detecting hyperuricemia is heipful in the diagnosis of gout, increased metabolism of nucleoproteins, such as in leukemia and polycythemia. Serum uric acid levels also increase with decreased renal function. Diabetic ketosis, shock, alcoholism and starvation.

PRINCIPLE

 $\label{eq:Uricase} Uricase$ Uric acid + O_2 +2H_2O ———— → allantoin + CO_2 + H_2O_2

Peroxidase

 $2H_2O$ +4-aminoantipyrine + DHBS \longrightarrow quinoneimine dye + $4H_2O$

SPECIMEN COLLECTION AND PREPARATION

Freshly drawn un-hemolyzed serum, plasma or urine are the choice of specimen. Serum uric acid is stable 3 days at room temperature, one week refrigerated; 6 months frozen. Avoid bacterial contamination.

REAGENT

- · Each kit contains 2 uric acid reagent cartridge (2×300 tests)
- · Ready to use
- · Components : uricase

240u/l

4-aminoantipyrine 0.85mM

3.5-dichloro-2-hydroxybenzene sulfonate (DHBS) 3.4mM

STORAGE: 2~8

PRECAUTIONS:

- 1. For in vitro diagnostic use only.
- Since all specimens are potentially infectious, they should be handled with appropriate precautions and practices in accordance with Biosafety level 2 as recommended by USA NIH manual" Biosafety in Microbiological and Biomedical Laboratories", and in accordance with National or local regulations related to the safety precautions of such materials.
- 3. Each laboratory has to perform the quality control test to assure the results being reliable before running the specimen tests.

PROCEDURE:

Use bar code readings to follow the Beckman parameters and procedure.



EXPECTED VALUE:

1. 5~7.0 mg/dl (90~420 µmol/l)

NOTE:

it is strongly recommended that each laboratory establish its own normal range.

REFERENCES:

- 1. Fossati, P. Et.al. 1980. Clin. Chem. 26:227.
- 2. Henry R.J.1968. Clin. Chem.: Principles and Technical. 2 nd ed. Harper & Row, Hagerstown, MD.
- 3. Klose, S.et.al. Clin. Chem. 1978,24,250.