**SPECIMEN**
Serum, plasma heparinized. Oxalate, citrate and fluoride could yield a small decrease of uric acid. Urine. Uric acid is stable 5 days at 4-25°C. Dilute urine sample 1:10 with deionized water.

**TEST PROCEDURE**

| Wavelength: | 550 nm |
| Lightpath: | 1 cm |
| Temperature: | 37°C |

**dispense:** blank calibrator sample
- reagent R1: 1 ml 1 ml 1 ml
- calibrator: - 50 µl -
- sample: - - -

Mix, incubate at 37°C for 5 minutes. Read absorbances of calibrator (Ac) and samples (Ax) against reagent blank.

**dispense:** blank calibrator sample
- reagent R2: 250 µl 250 µl 250 µl
- calibrator: - - -
- sample: - - -

Mix, incubate at 37°C for 5 minutes. Read absorbances of calibrator (Ac) and samples (Ax) against reagent blank.

**RESULTS CALCULATION**

**Serum/plasma sample:** uric acid mg/dl = (Ax - Ac) x (standard value) 

**Random urine sample:** uric acid mg/dl = (Ax - Ac) x 5 x 10 x diuresis (dl)

**24 hours urine sample:** uric acid mg/24h = (Ax - Ac) x 5 x 10 x diuresis (dl)

**EXPECTED VALUES**

| Men | 3.5 - 7.2 mg/dl (0.21 - 0.42 mmol/l) |
| Women | 2.6 - 6.0 mg/dl (0.15 - 0.35 mmol/l) |

Each laboratory should establish appropriate reference intervals related to its population.

**QUALITY CONTROL AND CALIBRATION**

It is suggested to perform an internal quality control. For this purpose the following human based control sera are available:

**QUANTINORM CHEMA**
with normal or close to normal control values

**QUANTIPATH CHEMA**
with pathological control values.

If required, a multiparametric, human based calibrator is available: **AUTOCAL H**

Please contact Customer Care for further information.

**TEST PERFORMANCE**

**Linearity**
The method is linear up to 25 mg/dl. If the value is exceeded, it is suggested to dilute sample 1+9 with saline and to repeat the test, multiplying the result by 10.

**Sensitivity/limit of detection (LOD)**
The limit of detection is 0.06 mg/dl.

**Interferences**

- Hemoglobin ≤ 1600 mg/dl
- Bilirubin ≤ 29 mg/dl
- Lipids ≤ 970 mg/dl
- Ascorbic acid ≤ 50 mg/dl

**Precision**

- intra-assay (n=10) mean (mg/dl) SD (mg/dl) CV% sample 1 4.49 0.02 0.47 sample 2 12.04 0.06 0.49
- inter-assay (n=21) mean (mg/dl) SD (mg/dl) CV% sample 1 4.53 0.08 1.87 sample 2 12.01 0.24 2.00

**METHODS COMPARISON**

A comparison between Chema and a commercially available product gave the following results:

Uric acid AOX FL Chema = x
Uric acid comparator = y

y = 0.882 x - 0.037 mg/dl  r² = 0.99

**WASTE DISPOSAL**

This product is made to be used in professional laboratories.

P501: Dispose of contents according to national/international regulations.

**REFERENCES**


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**SYMBOLS**

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