

Standard operation procedure
Faculty of Biosciences, NMBU

Method name: Urea

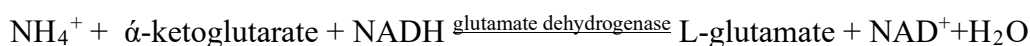
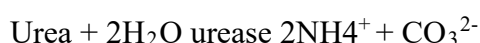
BIOVIT-nr.: Arb1012

1. Introduction:

Urea is analyzed mainly in serum, plasma, urine and milk. Reagents for the determination of urea are assays that are ready to use for quantitative determination of urea or blood urea nitrogen (BUN) in serum, plasma, urine and milk.

2. Principle:

It is a kinetic, enzymatic UV method.



The increase in NADH concentration is directly related to the urea concentration, and can be measured photometrically on a RX Daytona + spectrophotometer.

Reportable range: 0.50-62.0 mmol/L.

Interferences:

Hemoglobin under 500mg/dl has no significant effect on the results.

Total bilirubin has no significant impact under 340mg/dl (581 μ mol/l).

Turbidity has no significant effect below 600mg/dL triglycerides equivalent (6g/L, 6.9mmol / L).

Glucose has no significant effect below 5g/L (28 mmol/l).

Ascorbic acid has no significant effect below 230mg/L (1,3mmol/L).

Bilirubin has no significant effect below 600 mg/L (1027 μ mol/L).

Methyldopa has no significant effect below 50 mg/L.

3. Reagents and control sample:

UREA assay ref nr SKU: UR 107 from Randox Daytona +. The kit lasts for 800 measurements. Shelf life until the expiration date at 2-8 ° C. Stored in refrigerator at the 1st floor.

Randox UREA 8334 assay from ISO 13485.

o Clinical Chemistry Calibrator Level 2 CAL2350

o Clinical Chemistry Calibrator Level 3 CAL2351

o Quality control (Assayed Chemistry Premium Plus Level 2, Cat NoHN1530)

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o Quality control (Assayed Chemistry Premium Plus Level 3, Cat NoHE1532)

4. Risk assessment:

Solutions R1 and R2 contain less than 0.1% sodium azide.

5. Equipment:

Disposable pipette, tips and plastic equipment for Randox Daytona +.

Eppendorf tube without lid 2 mL.

Automatic pipettes

RX Daytona + instrument

Milli Q water

6. Job description:

The samples are analyzed on a RX Daytona + fully automatic analyzer.

The serum or the milk are transferred into labeled Eppendorf tubes after centrifugation.

The milk must be centrifuged for at least 30 minutes at 4°C, and then the milk must be sampled under the cream layer.

The urine is pipetted from sample cups.

Remember that the control sample should be included on each round of analysis, and it is stored at -20 °C freezer in freezer room H142. The results are in mmol / l.

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