QuantiQuik™ Urea (BUN) Quick Test Strips

Catalog Number: QQUREA10

DESCRIPTION

UREA, the major end product of protein catabolism in animals, is primarily produced in the liver and secreted by the kidneys. It is the primary vehicle for removal of toxic ammonia from the body. Urea is widely used in the agricultural industry as a fertilizer as well as an animal feed additive. Milk urea is often monitored to determine the amount of protein in an animal's diet. Additionally, small amounts of urea can be found in many kinds of fermented foods and beverages.

BioAssay Systems' QuantiQuik™ Urea (BUN) Test Strips are based on the Urease catalyzed conversion of urea to ammonium and carbon dioxide. The pH of the reaction medium is monitored by a chromogen and the intensity of the product color is directly proportional to the urea concentration in the sample. The QuantiQuik™ Urea Test strips allow for rapid and inexpensive quantitative determination of urea or blood urea nitrogen (BUN) and do not require sophisticated laboratory instruments.

Product Information

Catalog No: QQUREA10

Number of Tests: 10 per package (other sizes available upon request).

Contents:

- Test Strips: QTY 10
- Dilution Tubes: 10 ×
- Instruction Manual

Shipping/Storage: The kit is shipped and stored at room temperature. Keep strips dry and out of direct sunlight.

Expiry: 6 months upon receipt.

Product Accessories

Some samples require either a 2× or 31× dilution. These dilutions can be performed either with a pipetteman if available or single use transfer pipettes can be purchased separately. Diluting 10 samples 2× requires thirty 20 µL transfer pipettes. Diluting 10 samples 31× requires twenty 20 µL transfer pipettes and ten 300 µL transfer pipettes. Deionized or distilled water is needed for samples that require a dilution and can also be purchased separately. We offer the following:

- Ten 20 µL Transfer Pipettes (for 2× and 31× sample dilutions or undiluted samples), Cat. No. TP20
- Ten 300 µL Transfer Pipettes (for 31× sample dilutions), Cat. No. TP300
- 10 mL Deionized water (for sample dilutions), Cat No. DH2O-010

TEST PROCEDURE

Samples: Most serum and plasma samples can be tested undiluted. Note: Plasma samples containing Heparin or EDTA are okay, citrate should be less than 30 mM. For most urine samples we recommend diluting samples 31×. Milk samples often require a 2× dilution. For other samples, please contact Technical Support at info@bioassaysys.com for dilution recommendations.

1. For samples that do not require a dilution, use a 20 µL transfer pipette (a pipetteman can also be used if available), and carefully transfer 20 µL of sample directly onto the strip reaction pad. Skip ahead to step 4.

   For samples requiring a 2× dilution, use a 20 µL transfer pipette and carefully transfer 20 µL of dH_2O to an empty Dilution tube. Use the same transfer pipette to add 20 µL of sample to the Dilution tube. For samples requiring a 31× dilution, use a 300 µL transfer pipette two times to transfer a total of 600 µL dH_2O to an empty Dilution tube. Then, use a 20 µL transfer pipette to transfer 20 µL of sample to the Dilution tube. (To use the transfer pipette: Squeeze top bulb of pipette and dip into sample and release bulb to take up sample. Next, place pipette tip into the Dilution tube and squeeze bulb again to release sample. Important: remove pipette from Dilution tube before releasing bulb).
2. Replace cap, securely close the vial, and invert the vial a couple of times to mix diluted samples.
3. Unscrew cap and use a new 20 µL transfer pipette to transfer 20 µL of the diluted sample from the Dilution tube directly onto the strip reaction pad.
4. Shake the strip a couple of times to remove any drops clinging to the strip and let color develop on strip for 5 minutes.
5. Compare the color of the reaction pad of the strip to the color on the provided Urea Chart shown on the test strip bag. Multiply the concentration on the chart by the dilution used (i.e. 2, 31, or 1 for undiluted samples) to determine the urea concentration in the sample.

Conversions: BUN (mg/L) = [Urea] (mg/L) / 2.14
1 mg/L urea equals 0.1 mg/dL,16.7 µM, 0.0001% or 1 ppm.