CREATIVE BIOMART®
Assay Kit

Urine Albumin-to-Creatinine Ratio Assay Kit

Product Information

Cat.No. Kit-2161

Product Overview

UACR Assay Kit provides a simple, sensitive, and high-throughput adaptable assay that detects albumin (detection range: 0.02- 2.5 mg/ml), creatinine (detection range: 0.002 -0.5 mg/ml) and urine albumin-to-creatinine ratio. The UACR ratio is determined in two steps: First, albumin is determined by using a probe (AB580) that specifically recognizes albumin (Ex/Em = 600/630 nm). Second, creatinine is converted to sarcosine via enzymatic reactions. Sarcosine is specifically oxidized generating a product that reacts with a probe producing a chromophore that can be detected at 570 nm.

Size

100 assays

Description

Urine Albumin-to-Creatinine Ratio (UACR) is one of the two markers used to determine chronic kidney disease (CKD). UACR is recommended to be measured on regular basis on people living with Type I and Type II diabetes. UACR is defined as the ratio between albumin (reported in mg/dl) and creatinine (reported in g/dl). This ratio estimates the amount of albumin excreted in urine during a 24 hr period. Albuminuria is diagnosed when UACR is greater than 30 mg albumin/g creatinine.

Applications

Estimation of albumin in biological samplesEstimation of creatinine in biological samplesDetermination of UACR in mammalian urine samples

Storage

Store kit at -20°C, protected from light. Briefly spin small vials prior to opening. Read entire protocol before performing the assay.Creatinine Assay Buffer, Albumin Assay Buffer, and Albumin Diluent: Store at -20°C. Bring to room temperature (RT) before use.Albumin Probe (AB580) and Creatinine Probe: Light sensitive. Store at -20°C. Bring to RT before use.Creatinase, Creatininase, and Creatinine Enzyme Mix: Reconstitute with 220 µl of Creatinine Assay Buffer. Aliquot and store at - 20°C.

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Freeze/thaw should be limited to one time. Keep on ice during use.BSA Standard (2 mg/ml): Store at RT.Creatinine (10 μmol): Reconstitute with 115 µl of dH2O to generate 10 µg/µl Creatinine Standard. Dissolve completely. Store at -20°C. Use within 2 months.

Kit Components

Creatinine Assay Buffer: 25 mlAlbumin Assay Buffer: 7 mlAlbumin Diluent: 7 mlAlbumin Probe (AB580): 0.4 mlCreatinine Probe: 0.2 mlCreatinase: 1 vialCreatininase: 1 vialCreatinine Enzyme Mix: 1 vialBSA Standard (2 mg/ml): 1 mlCreatinine Standard (10 μmol): 1 vial

Detection method Fluorescence (Ex/Em = 600/630 nm) & Absorbance (OD 570 nm)

Compatible Sample Types

• Albumin: urine, saliva, etc.• Creatinine: urine, serum, etc.• UACR: urine

Features & Benefits

• Simple & Sensitive• High-Throughput adaptable• Suitable for detecting albumin (detection range: 0.02- 2.5 mg/ml), creatinine (detection range: 0.002 -0.5 mg/ml) and urine albumin-to-creatinine ratio (UACR)

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