CREATIVE BIOMART®
Assay Kit

Citrate Assay Kit II

Product Information

Cat.No. Kit-0229

Product Overview

Citrate Assay Kit is used for quantifying citrate.

Description

Citric acid (HOOC-CH2-C(-OH)(-COOH)-CH2-COOH) is a key intermediate in the TCA cycle which occurs in mitochondria. It is formed by the addition of oxaloacetate to the acetyl group of acetyl-CoA derived from the glycolytic pathway. Citrate can be transported out of mitochondria and converted back to acetyl CoA for fatty acid synthesis. Citrate is an allosteric modulator of both fatty acid synthesis (acetyl-CoA carboxylase) and glycolysis (phosphofructokinase). Citrate is widely used industrially in foods, beverages and pharmaceuticals. Citrate metabolism and disposition can vary widely due to sex, age and a variety of other factors. The Citrate Assay Kit provides a simple, sensitive and rapid means of quantifying citrate in a variety of samples. In the assay, citrate is converted to pyruvate via oxaloacetate. The pyruvate is quantified by converting a nearly colorless probe to an intensely colored (λmax=570 nm) and fluorescent (Ex/Em, 535/587 nm) product. The Citrate Assay Kit can detect 0.1 to 10 nmoles (~2 µM-10 mM) of citrate in a variety of samples.

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store kit at –20°C, protect from light. Warm Citrate Assay Buffer to room temperature before use. Briefly centrifuge all small vials prior to opening.

Kit Components

Citrate Assay Buffer 25 mLCitrate Probe 0.2 mLCitrate Enzyme Mix: lyophilized. 1 vialCitrate Developer: lyophilized. 1 vialCitrate Standard (10 μmol): lyophilized 1 vial

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Detection method	Colorimetric, Fluorometric

Compatible Sample Types

Biological Fluid, Cell Culture Supernatant, Tissue Culture Supernatant, Urine

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