

## Isocitrate Fluorometric Assay Kit

### Product Information

#### Cat.No.

Kit-0484

#### Product Overview

Isocitrate Assay Kit (Fluorometric) is used for quantitative determination of Isocitrate (Isocitric Acid) using fluorometric methods.

#### Description

ISOCITRATE (ISOCITRIC ACID) is a substrate in the citric acid (TCA) cycle. Isocitrate is formed by the isomerization of citrate catalyzed by the enzyme aconitase. Isocitrate is oxidized by isocitrate dehydrogenase producing  $\alpha$ -ketoglutarate and generating NADPH. Isocitrate is commonly found in many fruits and vegetables and their processed products. Industrially, isocitrate is used as a marker to identify the quality and purity of fruit juices. This isocitrate assay measures the NADPH generated from the oxidation of isocitrate. The NADPH reduces a probe into a highly fluorescent product. The fluorescence intensity of this product, measured at  $\lambda$  ex/em = 530/585 nm, is proportional to the isocitrate concentration in the sample.

#### Applications

Isocitrate determination in food, beverage, biological samples (e.g. cell lysate, tissue homogenate, serum, etc.)

#### Usage

For research use only (RUO)

#### Storage

Store all components at -20°C upon receiving.

#### Kit Components

Assay Buffer 10 mL NADP 500  $\mu$ L Standard 1 mL Enzyme A 120  $\mu$ L Enzyme B 120  $\mu$ L Probe 750  $\mu$ L

**Detection method** Fluorometric

#### Compatible Sample Types



CREATIVE **BIOMART**<sup>®</sup>  
Assay Kit

## Isocitrate Fluorometric Assay Kit

Beverage, Food, Cell lysate, Serum, Tissue homogenate

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### Features & Benefits

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Fast and sensitive. Linear detection range (20  $\mu$ L sample): 0.6 to 500  $\mu$ M for 10 min reaction. Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay. Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.

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