CREATIVE BIOMART®
Assay Kit

Fumarase Activity Colorimetric Assay Kit

Product Information

Cat

Kit-2260

Cat.No. Kit-2260

Product Overview

Fumarase (Fumarate Hydratase: EC 4.2.1.2) is an enzyme that catalyzes the reversible reaction of hydration and dehydration of fumarate to Malate. It has two forms: mitochondrial and cytosolic forms. The mitochondrial form of fumarase is one of the key enzymes in citric acid cycle, while cytosolic form is important for metabolism of amino acids and fumarate. In humans, fumarase deficiency leads to serious health problems such as fetal brain abnormality, hypotonia, and renal cell carcinoma. Therefore, accurate measurement of fumarase activity is important for preventing, diagnosis and mechanistic study of fumarase deficiency. Fumarase Activity Assay kit provides a quick and easy method for monitoring fumarase activity in various samples. In this kit, fumarase converts fumarate into malate, which then reacts with Enzyme Mix to form an intermediate. The intermediate subsequently reduces the Developer to a colored product with strong absorbance at 450 nm. The assay is simple and high-throughput ready and can detect less than 50 U/ml of fumarase activity in variety of sample types.

Applications

Measurement of fumarase activity in various tissues/cells. Analysis of citric acid cycle, reductive carboxylation cycle (CO2 fixation) and renal cell carcinomas.

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components

Fumarase Assay Buffer; Fumarase Substrate; Fumarase Enzyme Mix (Lyophilized); Fumarase Developer (Lyophilized); NADH Standard (Lyophilized); Fumarase Positive Control (Lyophilized)

Detection method Absorbance (OD 450 nm)

Features & Benefits

Simple & Rapid Protocol;
High-Throughput;
This kit can detect less than 50 U/ml of fumarase activity in variety of sample types

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