

Fumarase Assay Kit

Cat. No. Kit-2451 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

FUMARASE (or fumarate hydratase) (EC 4.2.1.2) is an enzyme that catalyzes the reversible hydration/dehydration reaction of fumarate to malate. Fumarase exists in two isoforms: a cytosolic and mitochondrial form. In the citric acid cycle, it facilitates a transition step in the production of energy in the form of NADH. Fumarase deficiency in humans results in early brain development problems and is characterized by poor feeding, hypotonia, failure to thrive, etc. The non-radioactive, colorimetric fumarase assay is based on the reduction of the tetrazolium salt MTT in a NADH-coupled enzymatic reaction to a reduced form of MTT which exhibits an absorption maximum at 565 nm. The increase in absorbance at 565 nm is proportional to the enzyme activity.

Storage

-20°C

Shipping

On Ice

Size

100 tests

Detection method

OD565nm

Compatible Sample Types

Biological samples (e.g. plasma, serum, erythrocytes, tissue and culture media.)

Features & Benefits

Fast and sensitive. Linear detection range: 0.4 to 70 U/L for 30 min reaction at 37°C. Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay. Can be readily automated on HTS liquid handling systems for processing thousands

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of samples per day.

Assay time

40 min

Sensitivity

0.4 U/L

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