CREATIVE BIOMART®
Assay Kit

Malate Dehydrogenase Assay Kit

Product Information

Cat.No. Kit-2078

Product Overview

The non-radioactive, colorimetric MDH 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.

Size

100 tests

Description

MALATE DEHYDROGENASE (MDH) (EC 1.1.1.37) is an enzyme which reversibly catalyzes the oxidation of L-malate to oxaloacetate in the presence of NAD. There are 2 isoforms in eukaryotic cells: MDH1 and MDH2. MDH1 found in the cytoplasm and plays a key part in the malateaspartate shuttle for transporting malate into the mitochondria. MDH2 is a mitochondrial enzyme which participates in the TCA cycle that reversibly converts L-malate into oxaloacetate. Higher MDH activities are found in some neurodegenerative diseases such as Alzheimer''s disease.

Applications

For quantitative determination of L-malate dehydrogenase enzyme activity and drug effects on malate dehydrogenase metabolism.

Storage

The kit is shipped on ice. Store all components at -20°C upon receiving. Shelf life: 6 months after receipt.

Kit Components

Assay Buffer: 10 mL Enzyme A: 120 µLNAD/MTT: 1 mL Enzyme B: 120 µLSubstrate: 600 µL Calibrator: 1.5 mL

Detection method OD565nm

Compatible Sample Types

Tel: 1-631-559-9269 1-516-512-3133
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45-1 Ramsey Road, Shirley, NY 11967, USA

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

Features & Benefits

• Fast and sensitive. Linear detection range (20 μL sample): 0.5 to 65 U/L for 20 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 of samples per day.

Assay time

30 min

Sensitivity

Detection Limit: 0.5 U/L

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