CREATIVE BIOMART®
Assay Kit

NADP-Malate Dehydrogenase (NAD-MDH) Activity Assay Kit

Product Information

Product Overview

Principle of Measurement: NADP-MDH catalyzes the reduction of oxaloacetate to malate using NADPH as a cofactor, resulting in a decrease in absorbance at 340 nm. The rate of absorbance decline at 340 nm is proportional to NADP-MDH activity.
Significance of Measurement: Malate dehydrogenase (MDH, EC 1.1.1.37) is widely distributed in animals, plants, microorganisms, and cultured cells. Mitochondrial MDH is a key enzyme of the tricarboxylic acid (TCA) cycle, catalyzing the conversion of malate to oxaloacetate, whereas cytosolic MDH catalyzes the reverse reaction. Oxaloacetate is an important metabolic intermediate linking multiple metabolic pathways. Therefore, MDH plays critical roles in cellular physiological processes, including mitochondrial energy metabolism, the malate–aspartate shuttle, reactive oxygen species metabolism, and disease resistance. Based on coenzyme specificity, MDH is classified into NAD-dependent and NADP-dependent forms. NADP-MDH is mainly present in eukaryotic cells.

Size

100t/96s

Storage

Store at -20 °C. Shelf life: 6 months.

Synonyms

NADP-MDH Kit

Detection method Spectrophotometer/Microplate Reader

Technical Notes

For measurements using a 96-well plate, a 96-well UV plate must be used.

Materials Required but Not Supplied

UV–visible spectrophotometer or microplate reader, benchtop centrifuge, water bath, adjustable pipettes, quartz cuvettes or 96-well plates, and distilled water.

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA