

NAD-Malate Dehydrogenase Activity Assay Kit II

Cat. No. KITZ-046 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Malate Dehydrogenase (MDH, EC 1.1.1.37) widely exist in animal, plant, microbe and cells culture. MDH in mitochondria is one of the key enzymes of TCA cycle, which catalyzes the formation of oxaloacetic acid from malic acid. In contrast, MDH in serum catalyzes the formation of malic acid from oxaloacetic acid.

Oxaloacetic acid is an important intermediate that connects several important metabolic pathways. MDH plays an important role in many physiological activities of cells, including mitochondrial energy metabolism, malic acid-aspartic acid shuttle system, reactive oxygen species metabolism and disease resistance. According to the different coenzyme specificity, MDH is divided into NAD-dependent MDH and NADP- dependent MDH. Bacteria usually only contain NAD-MDH. NAD-MDH is distributed in the cytoplasm and mitochondria in eukaryotic cells.

NAD-MDH catalyzes NADH to reduce oxaloacetic acid into malic acid, resulting in the decrease of light absorption at 340nm.

Size	100T/96S
Storage	Store at -20 °C

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Shipping	Ice pack
Kit Components	Extract solution: Liquid 100 mL×1, store at 4°C. Reagent I: Liquid 20 mL×1, store at 4°C. Reagent II: Powder×1, store at -20°C. Working solution: add 360 µL of distilled water when the solution will be used. The rest of reagent store at -20°C. Reagent III: Powder×1, store at -20°C. Working solution: add 327 µL of distilled water when the solution will be used. The rest of reagent store at -20°C.
Materials Required but Not Supplied	Spectrophotometer/ Microplate reader, desk centrifuge, water-bath, adjustable pipette, micro quartz cuvette/ 96 well flat-bottom plate (UV plate) and distilled water.

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