

NAD-Malate Dehydrogenase Activity Assay Kit I

Cat. No. KITZ-045 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Malate Dehydrogenase (MDH, EC 1.1.1.37) is 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, which resulting in a decrease in absorption at 340nm.

Size	50T/48S
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Storage	Store at -20 °C
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Shipping	Ice pack
Kit Components	Extract solution: 50 mL×1, store at 4°C. Reagent I: 40 mL×1, store at 4°C. Reagent II: Powder×2, store at -20°C. Add 360 µL of distilled water when the solution will be used. The rest of reagentstore at -20°C. Reagent III: Powder×2, store at -20°C. Add 327 µL of distilled water when the solution will be used. The rest of reagentstore at -20°C.
Materials Required but Not Supplied	Ultraviolet spectrophotometer, desk centrifuge, water-bath, adjustable pipette, 1mL quartz cuvette, distilled water.

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