

Malate Dehydrogenase Assay Kit

Cat. No. Kit-2078 **Lot. No.** (See product label)

SPECIFICATION

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 µNAD/MTT: 1 mL Enzyme B: 120 µSubstrate: 600 µ Calibrator: 1.5 mL
Detection method	OD565nm

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Compatible Sample Types	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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