Malic Dehydrogenase from bovine heart

Product Number  M 9004
Storage Temperature  2-8 °C

Product Description
Enzyme Commission (EC) Number: 1.1.1.37
CAS Number: 9001-64-3
Molecular Weight: 70 kDa
pI: 8.0-8.5
Synonyms: L-Malate: NAD⁺ oxidoreductase, MDH

Eukaryotic cells contain two different isozymes of malate dehydrogenase: mitochondrial (m-MDH) and soluble or cytoplasmic (s-MDH). This product is predominantly the mitochondrial form, but some of the cytoplasmic form is present. Malate dehydrogenase from bovine heart is a dimer consisting of two equal subunits with a molecular weight of 35 kDa.³

The enzyme catalyzes the following reaction:

\[ \text{Oxaloacetate} + \beta\text{-NADH} \rightarrow \text{L-Malate} + \beta\text{-NAD} \]

The enzyme is specific for the L isomeric configuration of malate, as D-malate is not a substrate. The activity of malate dehydrogenase is inhibited by ATP, ADP, AMP, thyroxine, iodine cyanide, and molecular iodine.¹

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Storage/Stability
This product is offered as an ammonium sulfate suspension of malic dehydrogenase. It is not recommended that dilute stock solutions be prepared.

References