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32-2527: MDH1 Recombinant Protein

Alternative Name : Malate dehydrogenase cytoplasmic,EC 1.1.1.37,Cytosolic malate dehydrogenase,MDHA,MOR2,MDH-s,MGC:1375,MDH1.

Description

Source : Escherichia Coli. The DNA encoding Malate (Malic) Dehydrogenase is cloned from cDNA library of chicken heart.The MDH1 is purified by proprietary chromatographic techniques. Malate dehydrogenase (EC1.1.1.37) is an enzyme in the citric acid cycle that catalyzes the conversion of malate into oxaloacetate (using NAD+) and vice versa (this is a reversible reaction). Malate dehydrogenase is not to be confused with malic enzyme, which catalyzes the conversion of pyruvate using NADPH.Malate dehydrogenase is also involved in gluconeogenesis, the synthesis of glucose from smaller molecules. Pyruvate in the mitochondria is acted upon by pyruvate carboxylase to form oxaloacetate, a citric acid cycle intermediate. In order to get the oxaloacetate out of the mitochondria, malate dehydrogenase reduces it to malate, and it then traverses the inner mitochondrial membrane. Once in the cytosol, the malate is oxidized back to oxaloacetate by cytosolic malate dehydrogenase. Finally, phosphoenol-pyruvate carboxy kinase (PEPCK) converts oxaloacetate to phosphoenol pyruvate.

Product Info

Amount :	5000 IU
Purification :	Greater than 95.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.
Content :	Each mg of protein contains 0.59mg NaPO4.
Storage condition :	Lyophilized Malate dehydrogenase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MDH1 should be stored at 4°C between 2-7 days and for future use below -18°C.Please prevent freeze-thaw cycles.

Application Note

It is recommended to reconstitute the lyophilized Malate dehydrogenase in sterile 18MΩ-cm H2O.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.