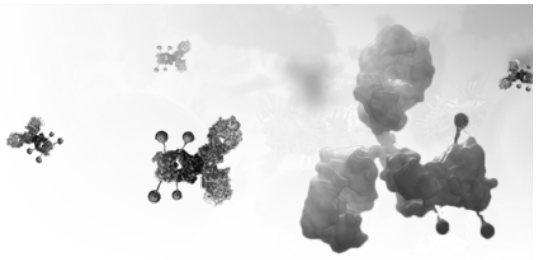

Malate Dehydrogenase (DAG367)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	RecombinantMalate dehydrogenase"s molecular weight is 40kDa (SDS-PAGE) and was expressedin E. coli. Does not contain a fusion partner.
Species	N/A
Conjugate	Unconjugated
Applications	Specificmethodologies have not been tested using this product.
Format	Purified, Lyophilized
Concentration	Specific activity: Lot specific 550 Units/mg protein
Buffer	Notapplicable. Does not contain ammonium sulfate
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction	Malate dehydrogenase (EC 1.1.1.37) (MDH) 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 malate to pyruvate, producing 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

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	pyruvate.
Keywords	Cytoplasmic malate dehydrogenase; Cytosolic malate dehydrogenase; Malate dehydrogenase 1; Malate dehydrogenase 1 NAD (soluble); Malate dehydrogenase 2; Malate dehydrogenase 2 NAD (mitochondrial); MDH 1; MDH 2; MDH; MDH1; MDH2; MDHA; MDHm; MDHs; MMDH; Mor

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