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Datasheet for ABIN1097125

MDH1 Protein (AA 2-334) (His tag)

Overview

Quantity:	50 µg
Target:	MDH1
Protein Characteristics:	AA 2-334
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MDH1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Malate Dehydrogenase, Cytoplasmic/MDH1 (C-6His)
Sequence:	SEPIRVLVTG AAGQIAYSLL YSIGNGSVFG KDQPIILVLL DITPMMGVLD GVLMEQLQDCA LPLLKDVIAT DKEDVAFKDL DVAILVGSMR RREGMERKDL LKANVKIFKS QGAALDKYAK KSVKVIWVGN PANTNCLTAS KSAPSIPKEN FSCLTRLDHN RAKAQIALKL GVTANDVKNV IIWGNHSSTQ YPDVNHAKVK LQGKEVGVYE ALKDDSWLKG EFVTTVQQRG AAVIKARKLS SAMSAAKAIC DHVRDIWFGT PEGEFVSMGV ISDGNSYGVP DDLLYSFPVV IKNKTWKFE GLPINDFSRE KMDLTAKELT EEKESAFEFL SSALEHHHHH H
Characteristics:	Recombinant Human Malate Dehydrogenase, Cytoplasmic/MDH1 is produced by our E. coli expression system. The target protein is expressed with sequence (Ser2-Ala334) of Human MDH1 fused with a 6His tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered

Product Details

Endotoxin Level: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test

Target Details

Target:	MDH1
Alternative Name:	MDH1 (MDH1 Products)
Sub Type:	Fusionprotein
Background:	<p>Malate Dehydrogenase, Cytoplasmic (MDH1) is an enzyme which belongs to the MDH Type 2 sub-family of LDH/MDH superfamily. MDH1 is involved in the Citric Acid Cycle that catalyzes the conversion of Malate into Oxaloacetate (using NAD⁺) and vice versa. MDH1 should not be confused with Malic Enzyme, which catalyzes the conversion of Malate to Pyruvate, producing NADPH. MDH1 also participates 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 transport 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 MDH1. Finally, Phosphoenol-Pyruvate Carboxy Kinase (PEPCK) converts Oxaloacetate to Phosphoenol Pyruvate.</p> <p>Alternative Names: Malate Dehydrogenase Cytoplasmic, Cytosolic Malate Dehydrogenase, Diiodophenylpyruvate Reductase, MDH1, MDHA</p>
Molecular Weight:	37.5 kDa
UniProt:	P40925

Application Details

Restrictions: For Research Use only

Handling

Format:	Liquid
Reconstitution:	<p>It is not recommended to reconstitute to a concentration less than 100 μg/mL.</p> <p>Dissolve the lyophilized protein in ddH₂O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
Buffer:	Supplied as a 0.2 μm filtered solution of 20 mM Tris, 150 mM NaCl, pH 8.0.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.

Handling

Storage:	-80 °C
Storage Comment:	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Expiry Date:	6 months