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## Product Data Sheet

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Product Name: MDH2 Mouse  
 Cat. No.: GP21909  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	M-MDH; MDH; MOR1.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MAKVAVLGAS GGIGQPLSLL LKNSPLVSRL TLYDIAHTPG VAADLSHIET RANVKGYLGP EQLPDCLKGC DVVVIPAGVP RKPGMTRDDL FNTNATIVAT LTAACAQHCP EAMVCIANP VNSTIPITAE VFKKHGVYNP NKIFGVTTLD IVRANTFVAE LKGLDPARVN VPVIGGHAGK TIIPLISQCT PKVDFPQDQL ATLTGRIQEA GTEVVKAKAG AGSATLSMAY AGARFVFSLV DAMNGKEGVV ECSFVQSKET ECTYFSTPLL LGKKGLEKNL GIGKITPFEE KMIAEAIPEL KASIKKGEDF VKNMK.		
Formulation	MDH2 protein solution (1mg/ml) containing Phosphate buffered saline (pH7.4) and 20% glycerol.		

### Introduction

MDH2 catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. MDH2 is localized to the mitochondria and takes part in the malate-aspartate shuttle that functions in the metabolic coordination between cytosol and mitochondria. MDH2 is highly expressed in the adrenal system, small intestine, heart and pancreas.

### Biological Activity

Specific activity is > 800 units/mg, and is defined as the amount of enzyme that cleaves 1umole of oxaloacetate and beta-NADH to Lmalate and beta-NAD per minute at pH8.0 at 37°C.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

MDH2 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 335 amino acids (25-338a.a.) and having a molecular mass of 35.4kDa. MDH2 is fused to a 21 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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