

## Active Recombinant Human MDH2

Cat. No. MDH2-1093H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Human MDH2 (NP\_005909, 25 a.a. - 338 a.a.) partial recombinant protein expressed in Escherichia coli.

**Species** Human

**Source** Human

**ProteinLength** 25-338 a.a.

**Description** MDH2 is one of the two malate dehydrogenases. Malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. In particular, MDH2 is localized to the mitochondria and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria.

**Sequence**

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MGSSHHHHHH SSSLVPRGSH MAKVAVLGAS GGIGQPLSLL LKNSPLVSRL
TLYDIAHTPG VAADLSHIET KAAVKGYLGP EQLPDCLKGC DVVVIPAGVP
RKPGMTRDDL FNTNATIVAT LTAACAQHCP EAMICVIANP VNSTIPITAE
VFKKHGVYNP NKIFGVTTLD IVRANTFVAE LKGLDPAVNV VPVIGGHAGK
TIIP LISQCT PKVDFPQDQL TALTGRIQEA GTEVVKAKAG AGSATLSMAY
AGARFVFSLV DAMNGKEGVV ECSFVKSQET ECTYFSTPLL LGKKGIEKNL
GIGKVSSFEE KMISDAIPEL KASIKKGEDF VKTLK
    
```

**Theoretical MW (kDa)** 35.2

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<b>Form</b>	Liquid
<b>Preparation Method</b>	E. coli expression system
<b>Purity</b>	> 95% by SDS-PAGE
<b>Activity</b>	Specific activity is > 30 units/mg, and is defined as the amount of enzyme that cleaves 1umole of oxalacetate and beta-NADH to L-malate and beta-NAD per minute at pH7.5 at 25°C.
<b>Application</b>	SDS-PAGE
<b>Storage Buffer</b>	In 20 mM Tris-HCl, pH 7.5 (10% glycerol)
<b>Storage</b>	Store at 4°C for 1-2 weeks. For long term storage store at -20°C or -80°C. Aliquot to avoid repeated freezing and thawing.
<b>Unitprot ID</b>	P40926

## GENE INFORMATION

<b>Gene Name</b>	MDH2 malate dehydrogenase 2, NAD (mitochondrial) [ Homo sapiens ]
<b>Official Symbol</b>	MDH2
<b>Synonyms</b>	MDH2; malate dehydrogenase 2, NAD (mitochondrial); OTTHUMP00000210118; malate dehydrogenase, mitochondrial; MDH; MOR1; M-MDH; MGC:3559; EC 1.1.1.37
<b>Gene ID</b>	4191

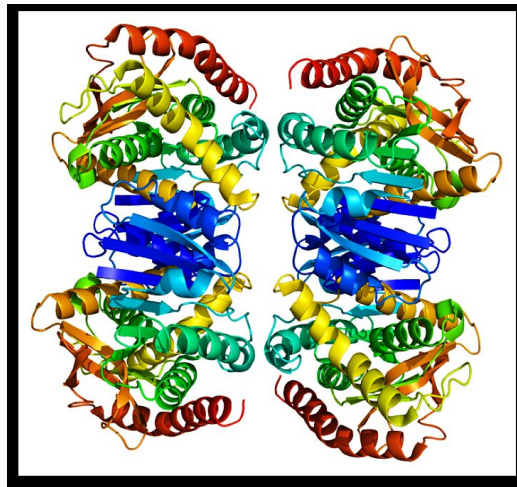
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<b>mRNA Refseq</b>	NM_005918
<b>Protein Refseq</b>	NP_005909
<b>MIM</b>	154100
<b>Chromosome Location</b>	7cen-q22
<b>Function</b>	L-malate dehydrogenase activity; malate dehydrogenase (NADP+) activity; oxidoreductase activity; protein self-association

**PDBrendering based on 1mld.**



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