

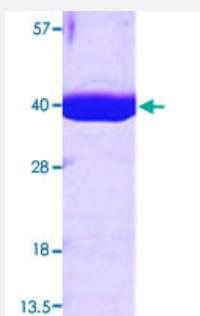
Bioactive

## MDH2 (Human) Recombinant Protein

Catalog # P3513

Size 50 ug

### Applications



### Specification

#### Product Description

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

#### Sequence

MGSSHHHHHHSSGLVPRGSHMAKVAVLGASGGIGQPLSLLKNSPLVSRLTYDIAHTPGVAADL  
SHIETKAAVKGYLGPEQLPDCLKGCDVVVIPAGVPRKPGMTRDDLFTNATIVATLTAACAQHCP  
EAMICVIANPVNSTIPITAEVFKKHGVYNPNKIFGVTTLDIVRANTFVAELKGLDPARVNVPIGGHA  
GKTIIP LISQCTPKVDFPQDQLTALTGRIQEAGTEVVKAKAGAGSATLSMAYAGARFVFSLV DAMN  
GKEGVVECSFVKSQETECTYFSTPLLLGKKGIEKNLGIGKVSSFEEKMISDAIPELKASIKKGEDFV  
KTLK

#### Theoretical MW (kDa)

35.2

#### Form

Liquid

#### Preparation Method

*Escherichia coli* expression system

#### Purification

Conventional Chromatography

#### Concentration

1 mg/mL

#### Purity

> 95% by SDS-PAGE

#### Activity

Specific activity is > 30 units/mg, and is defined as the amount of enzyme that cleaves 1umole of oxal acetate and beta-NADH to L-malate and beta-NAD per minute at pH7.5 at 25°C.

**Quality Control Testing**

Loading 3 ug protein in 15% SDS-PAGE

**Storage Buffer**

In 20 mM Tris-HCl buffer, pH 7.5 (10% glycerol).

**Storage Instruction**

Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C.  
Aliquot to avoid repeated freezing and thawing.

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — MDH2

**Entrez GeneID**[4191](#)**Protein Accession#**[NP\\_005909](#)**Gene Name**

MDH2

**Gene Alias**

M-MDH, MDH, MGC:3559, MOR1

**Gene Description**

malate dehydrogenase 2, NAD (mitochondrial)

**Omim ID**[154100](#)**Gene Ontology**[Hyperlink](#)**Gene Summary**

Malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. The protein encoded by this gene 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. [provided by RefSeq]

**Other Designations**

mitochondrial malate dehydrogenase

## Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)

- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Carbon fixation in photosynthetic organisms](#)
- [Citrate cycle \(TCA cycle\)](#)
- [Glyoxylate and dicarboxylate metabolism](#)
- [Metabolic pathways](#)
- [Pyruvate metabolism](#)
- [Reductive carboxylate cycle \(CO<sub>2</sub> fixation\)](#)

## Disease

- [Tobacco Use Disorder](#)