

Bioactive

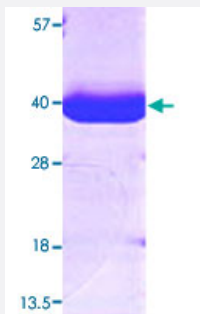
Full-Length

MDH1 (Human) Recombinant Protein

Catalog # P3512

Size 100 ug

Applications



Specification

Product Description

Human MDH1 (NP_005908, 1 a.a. - 334 a.a.) full-length recombinant protein with His tag expressed in *Escherichia coli*.

Sequence

MSEPIRVLVTGAAGQIAYSLLYSIGNGSVFGKDQPIILVLLDITPMMGVLDGVLMEIQDCALPLLKDV
IATDKEDVAFKDLDAVLVGSMPPREGMERKDLLKANVKIFKSQGAALDKYAKKSVKVIVVGNPA
NTNCLTASKSAPSIPKENFSCLTRLDHNRKAQIALKLGV TANDVKNVIWGNHSSSTQYPDVNHAK
VKLQGKEVGVYEALKDDSWLKGEFVTTVQQRGAAGAAVIKARKLSSAMSAKAICDHVRDIWFGTPE
GEFVSMGVISDGNSYGVPPDLLYSFPVVIKNKTWKFEGLPINDFSREKMDLTAKELTEEKESAF
EFLSSALEHHHHHH

Host

Escherichia coli

Theoretical MW (kDa)

37.4

Form

Liquid

Preparation Method

Escherichia coli expression system

Purification

Conventional Chromatography

Concentration

1 mg/mL

Purity

> 95% by SDS-PAGE

Activity	Specific activity is > 8 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.
Quality Control Testing	Loading 3 ug protein in 15% SDS-PAGE
Storage Buffer	In 20 mM Tris-HCl buffer, pH 8.0 (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 — MDH1

Entrez GeneID	4190
Protein Accession#	NP_005908
Gene Name	MDH1
Gene Alias	MDH-s, MDHA, MGC:1375, MOR2
Gene Description	malate dehydrogenase 1, NAD (soluble)
Omim ID	154200
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 cytoplasm 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	cytosolic malate dehydrogenase soluble 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 \(CO₂ fixation\)](#)

Disease

- [Drug Toxicity](#)
- [Edema](#)
- [Hypercholesterolemia](#)