

MDH2 active protein

MDH2, 25-338aa, Human, His tag, E Coli (Bioactivity Validated)

CATALOG # AAA48596	HOST E Coli	APPLICATIONS SDS-Page
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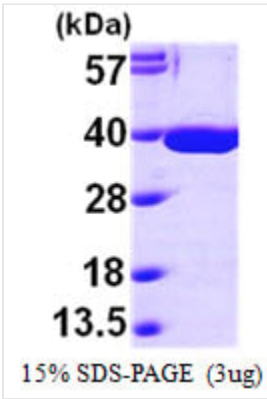
PRODUCT SYNONYMS

MDH2; 25-338aa; Human; His tag; E Coli (Bioactivity Validated); Malate dehydrogenase 2 NAD (mitochondrial); M-MDH; MDH; MOR1; Malate dehydrogenase 2; NAD (mitochondrial); MDH2 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95% by SDS-PAGE
Form/Format	Liquid. In 20 mM Tris-HCl Buffer (pH 7.5) containing 10% glycerol
Concentration	1 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MGSSHHHHH SSGLVPRGSH MAKVAVLGAS GGIGQPLSLL LKNSPLVSRLL TLYDIAHTPG VAADLSHIET KAAVKGYLGP EQLPDCLKGC DVVVIPAGVP RKPGMTRDDL FNTNATIVAT LTAACAQHCP EAMICVIANP VNSTIPITAE VFKKHGVYNP NKIFGVTTLD IVRANTFVAE LKGLDPARVN VPVIGGHAGK TIIP LISQCT PKVDFPQDQL TALTGRIQEA GTEVVKAKAG AGSATLSMAY AGARFVFSLV DAMNGKEGVV ECSFVKSQET ECTYFSTPLL LGKKGIEKNL GIGKVSSFEE KMISDAIPEL KASIKKGEDF VKTLK
Sequence Length	338
Applicable Applications for MDH2 active protein	SDS-PAGE
Antigen Species	Human
Tag Information	His-tag
Endotoxin Level	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Biological Activity	Specific activity is > 700 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 pH8.0 at 37C.
Assay	1. Prepare a 180ul assay buffer into a suitable container. The concentrations are 100 mM potassium phosphate (pH8.0), 0.5mM beta-nicotinamide adenine dinucleotide, reduced form, 0.5mM oxalacetic acid. 2. Equilibrate to 37C and monitor at A340nm until the value is constant using a spectrophotometer. 3. Add 20ul of recombinant MDH2 protein 0.625ug/ml in assay buffer. 4. Mix by inversion and record the decrease at A340nm for approximately 5 minutes.
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for MDH2 active protein	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. It is widely expressed with high expression levels found in adrenal, small intestine, heart and pancreas. Recombinant human MDH2 protein, fused to His-tag at N-terminus, was expressed in E Coli and purified by using conventional chromatography.
Product Categories/Family for MDH2 active protein	Signal Transduction
References	Thummel CS., et al. (2010) Dev Dyn. 239 (3):954-64; Lee JS., et al (2002) J Basic Microbiol. 42 (4):238-45.;

NCBI AND UNIPROT INFORMATION

NCBI GI #	21735621
NCBI GeneID	4191
NCBI Accession #	NP_005909
NCBI GenBank Nucleotide #	NM_005918.3
UniProt Accession #	P40926 ; O43682 ; A8K414 ; B2RE78 ; B4DE44 ; E9PDB2
Molecular Weight	35.2 kDa (335aa), confirmed by MALDI-TOF
NCBI Official Full Name	malate dehydrogenase, mitochondrial isoform 1
NCBI Official Synonym Full Names	malate dehydrogenase 2
NCBI Official Symbol	MDH2
NCBI Official Synonym Symbols	MDH; MOR1; M-MDH; EIEE51; MGC:3559
NCBI Protein Information	malate dehydrogenase, mitochondrial
UniProt Protein Name	Malate dehydrogenase, mitochondrial
UniProt Gene Name	MDH2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.