

Product datasheet for **AR09617PU-N**

MDH2 (25-338, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	MDH2 (25-338, His-tag) human recombinant protein, 50 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSSLVPRGSH</u> MAKVAVLGAS GGIGQPLSLL LKNSPLVSRLL TLYDIAHTPG VAADLSHIET KAAVKGYLGP EQLPDCLKGC DVVVIPAGVP RKPGMTRDDL FNTNATIVAT LTAACAQHCP EAMICVIANP VNSTIPITAE VFKKHGVYNP NKIFGVTTLD IVRANTFVAE LKGLDPAVRN VPVIGGHAGK TIIP LISQCT PKVDFPQDQL TALTGRIQEA GTEVVKAKAG AGSATLSMAY AGARFVFSLV DAMNGKEGVV ECSFVKSQET ECTYFSTPLL LGKKGIEKNL GIGKVSSFEE KMISDAIPEL KASIKKGEDF VKTLK
Tag:	His-tag
Predicted MW:	35.2 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 7.5) containing 10% Glycerol
Bioactivity:	Biological: Specific activity is > 30 units/mg, and is defined as the amount of enzyme that cleaves 1 umole of oxalacetate and beta-NADH to L-malate and beta-NAD per minute at pH 7.5 at 25°C (see "Protocols").
Preparation:	Liquid purified protein
Applications:	Protocol: Activity Assay 1. Prepare assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 100 mM Potassium phosphate, 0.13 mM beta-nicotinamide adenine dinucleotide, reduced form, 0.25 mM oxalacetic acid. 2. Add recombinant MDH protein with various concentrations (0.1ug, 0.5ug, 1ug) in assay buffer. 3. Mix by inversion and equilibrate to 1°C and monitor at A340nm until the value is constant using a spectrophotometer. 4. Record the increase at A340nm for approximately 2 minutes.



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Protein Description:	Recombinant human MDH2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001269332
Locus ID:	4191
UniProt ID:	P40926
Cytogenetics:	7q11.23
Synonyms:	Malate dehydrogenase, mitochondrial
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. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2013]
Protein Families:	Protocol: Activity Assay <ol style="list-style-type: none">1. Prepare assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 100 mM Potassium phosphate, 0.13 mM beta-nicotinamide adenine dinucleotide, reduced form, 0.25 mM oxalacetic acid.2. Add recombinant MDH protein with various concentrations (0.1ug, 0.5ug, 1ug) in assay buffer.3. Mix by inversion and equilibrate to 1°C and monitor at A340nm until the value is constant using a spectrophotometer.4. Record the increase at A340nm for approximately 2 minutes.
Protein Pathways:	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways, Pyruvate metabolism

Product images:

