

Recombinant human Malate dehydrogenase 2/MDH2 protein

Catalog Number: ATGP0679

PRODUCT INFORMATION

Expression system

E.coli

Domain

25-338aa

UniProt No.

P40926

NCBI Accession No.

NP_005909

Alternative Names

Malate dehydrogenase 2 NAD (mitochondrial), M-MDH, MDH, MOR1

PRODUCT SPECIFICATION

Molecular Weight

35.2 kDa (335aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 700unit/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.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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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. 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.

Amino acid Sequence

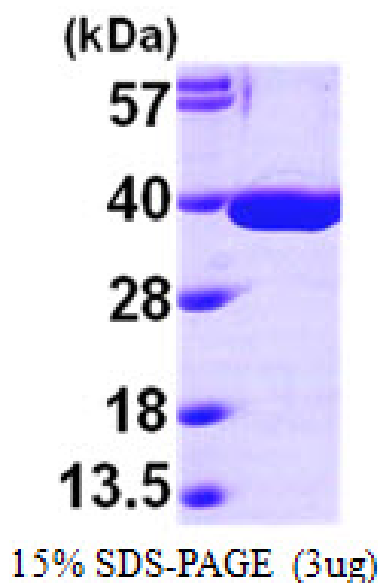
<MGSSHHHHHH SSGLVPRGSH M>AKVAVLGAS GGIGQPLSLL LKNSPLVSRL TLYDIAHTPG VAADLSHIET KAAVKGYLGP
EQLPDCLKGC DVVVIPAGVP RKPGMTRDDL FNTNATIVAT LTAACAQHCP EAMICVIANP VNSTIPITAE VFKKHGVYNP
NKIFGVTTLD IVRANTFVAE LKGLDPAVRN VPVIGGHAGK TIPLISQCT PKVDFPQDQL TALTGRIQEA GTEVVKAKAG
AGSATLSMAY AGARFVFSLV DAMNGKEGVV ECSFVKSQET ECTYFSTPLL LGKKGIEKNL GIGKVSSFEE KMISDAIPEL
KASIKKGEDF VKTLK

General References

Thummel CS., et al. (2010) Dev Dyn. 239(3):954-64
Lee JS., et al (2002) J Basic Microbiol. 42(4):238-45.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.