# abcam

### Product datasheet

## Recombinant human MDH2 protein ab99238

1 References 1 Image

Description

Product name Recombinant human MDH2 protein

**Biological activity** 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 pH7.5 at 25°C

**Activity Assay** 

Prepare assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 100 mM Potassium phosphate, 0.13mM beta-nicotinamide adenine

dinucleotide, reduced form, 0.25mM oxalacetic acid.

Add recombinant MDH protein with various concentrations (0.1ug, 0.5ug, 1ug) in assay

buffer.

Mix by inversion and equilibrate to 1°C and monitor at A340nm until the value is constant

using a spectrophotometer.

Record the increase at A340nm for approximately 2 minutes

Purity > 95 % SDS-PAGE.

ab99238 is purified using conventional chromatography techniques.

Expression system Escherichia coli

Accession P40926

Protein length Full length protein

Animal free No

**Nature** Recombinant

**Species** Human

Sequence MGSSHHHHHHSSGLVPRGSHMAKVAVLGASGGIGQPLS

LLLKNSPLVSRL

TLYDIAHTPGVAADLSHIETKAAVKGYLGPEQLPDCLKGC

**DVVVIPAGVP** 

RKPGMTRDDLFNTNATIVATLTAACAQHCPEAMICVIANPV

**NSTIPITAE** 

VFKKHGVYNPNKIFGVTTLDIVRANTFVAELKGLDPARVNV

PVIGGHAGK

TIIPLISQCTPKVDFPQDQLTALTGRIQEAGTEVVKAKAGAG

SATLSMAY

AGARFVFSLVDAMNGKEGVVECSFVKSQETECTYFSTPL

LLGKKGIEKNL

GIGKVSSFEEKMISDAIPELKASIKKGEDFVKTLK

1

Predicted molecular weight 35 kDa including tags

Amino acids 25 to 338

Tags His tag N-Terminus

#### **Specifications**

Our **Abpromise guarantee** covers the use of **ab99238** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Mass Spectrometry
Functional Studies

Mass spectrometry MALDI-TOF

Form Liquid

#### **Preparation and Storage**

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

pH: 7.50

Constituents: 0.316% Tris HCI, 10% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### **General Info**

Sequence similarities Belongs to the LDH/MDH superfamily. MDH type 1 family.

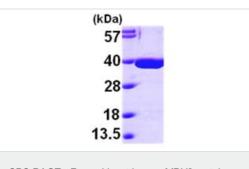
Post-translational modifications

Acetylation is enhanced by up to 67% after treatment either with trichostin A (TSA) or with nicotinamide (NAM) with the appearance of tri-and tetraacetylations. Glucose also increases

acetylation by about 60%.

**Cellular localization** Mitochondrion matrix.

#### **Images**



SDS-PAGE - Recombinant human MDH2 protein

(ab99238)

15% SDS-PAGE showing ab99238 at approximately 35.2kDa (3 $\mu$ g).

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