

Recombinant E.coli mdh protein

Catalog Number: ATGP1487

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-312aa

UniProt No.

P61889

NCBI Accession No.

NP_417703

Alternative Names

malate dehydrogenase, ECK3225, JW3205

PRODUCT SPECIFICATION

Molecular Weight

34.9 kDa (336aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 50mM NaCl

Purity

> 95% by SDS-PAGE

Biological Activity

Specific activity is > 1000unit/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

Description

Malate dehydrogenase (mdh) belongs to the LDH/MDH superfamily and MDH type 1 family. This enzyme catalyzes the conversion of malate into oxaloacetate (using NAD+) and vice versa (this is a reversible reaction). Malate dehydrogenase is also involved in gluconeogenesis, the synthesis of glucose from smaller molecules.

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Recombinant E. coli mdh protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGSH>MKVAVL GAAGGIGQAL ALLLKTQLPS GSELSLYDIA PVTPGVAVDL SHIPTAVKIK
GFSGEDATPA LEGADVVLIS AGVARKPGMD RSDLFNVNAG IVKNLVQQVA KTCPKACIGI ITNPVNTTVA IAAEVLKKAG
VYDKNKLFV TLLDIIRSNT FVAELKGKQP GEVEVPVIGG HSGVTILPLL SQVPGVSFTE QEVADLTKRI QNAGTEVVEA
KAGGGSATLS MGQAAARFGL SLVRALQGEQ GVVECA YVEG DGQYARFFSQ PLLLGKNGVE ERKSIGTLISA FEQNALEGML
DTLKKDIALG EEFVNK

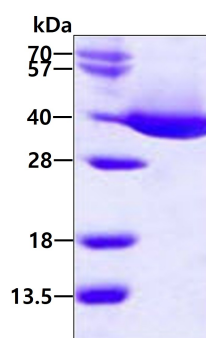
General References

Goward CR., et al. (1994). Protein Sci. 3 (10): 1883-8.

McAlister-Henn L., et al. (1988). Trends Biochem. Sci. 13 (5): 178-81.

DATA

SDS-PAGE



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