

Human recombinant protein MDH1
Human Recombinant MDH1
Catalog # PBV10592r**Specification**

Human recombinant protein MDH1 - Product info

Primary Accession	P40925
Concentration	1
Calculated MW	37.4 kDa (342 aa, 1-334 aa + CT His Tag) kDa

Human recombinant protein MDH1 - Additional Info

Gene ID	4190
Gene Symbol	MDH1
Other Names	
Malate dehydrogenase cytoplasmic, MDH-s, MDHA, MOR2	

Gene Source	Human
Source	E. Coli
Assay&Purity	SDS-PAGE; ≥95%
Assay2&Purity2	N/A;
Recombinant	Yes
Sequence	MSEPIRVLVT GAAGQIAYSL LYSIGNGSVF GKDQPIILVL LDITPMMGVL DGVLMELQDC ALPLLKD VIA TDKEDVAFKD LDVAILVGSM PRREGMERKD LLKANVKIFK SQGAALDKYA KKS VKVIVVG NPANTNCLTA SKSAPSIPKE NFSC LTRL DH NRAKAQIALK LGVTANDVKN VIIWGNHSST QYPDVNHAKV KLQGKEVGVY EALKDDSWLK GEFVTTVQQR GAAVIKARKL SSAMSAAKAI CDHVRDIWFG TPEGEFVSMG VISDGNSYGV PDDL LYSFPV VIKNKTWK FV EGLPINDFSR EKMDLTAKEL TEEKESAFEF LSSALEHHHH HH

Format
Liquid**Storage**
-80°C; 1 mg/ml solution in 20 mM Tris-HCl (pH 8.0) containing 10% glycerol.**Human recombinant protein MDH1 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Human recombinant protein MDH1 - Images

Human recombinant protein MDH1 - Background

Malate Dehydrogenase, Cytoplasmic (MDH1) is an enzyme which belongs to the MDH Type 2 sub-family of LDH/MDH superfamily. MDH1 is involved in the Citric Acid Cycle that catalyzes the conversion of Malate into Oxaloacetate (using NAD⁺) and vice versa. MDH1 should not be confused with Malic Enzyme, which catalyzes the conversion of Malate to Pyruvate, producing NADPH. MDH1 also participates in Gluconeogenesis, the synthesis of Glucose from smaller molecules. Pyruvate in the mitochondria is acted upon by Pyruvate Carboxylase to form Oxaloacetate, a Citric Acid Cycle intermediate. In order to transport the Oxaloacetate out of the Mitochondria, Malate Dehydrogenase reduces it to Malate, and it then traverses the inner mitochondrial membrane. Once in the cytosol, the Malate is oxidized back to Oxaloacetate by MDH1. Finally, Phosphoenol-Pyruvate Carboxy Kinase (PEPCK) converts Oxaloacetate to Phosphoenol Pyruvate.

Human recombinant protein MDH1 - References

Tanaka T., et al. Genomics 32:128-130(1996).
Lo A.S.Y., et al. Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
Ebert L., et al. Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Ota T., et al. Nat. Genet. 36:40-45(2004).
Hillier L.W., et al. Nature 434:724-731(2005).