

MDH1 active protein

MDH1, 1-334aa, Human, His tag, E Coli (Bioactivity Validated)

CATALOG # AAA48570	HOST E Coli	APPLICATIONS SDS-Page
------------------------------	-----------------------	---------------------------------

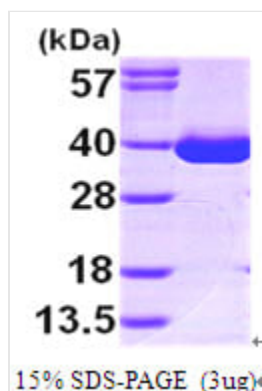
PRODUCT SYNONYMS

MDH1; 1-334aa; Human; His tag; E Coli (Bioactivity Validated); Malate dehydrogenase cytoplasmic; MDH-s; MDHA; MOR2; Malate dehydrogenase; cytoplasmic; MDH1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95% by SDS-PAGE
Form/Format	Liquid. In 20 mM Tris-HCl Buffer (pH 8.0) containing 10% glycerol
Concentration	1 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MSEPIRVLT GAAGQIAYSL LYSIGNGSVF GKDQPIILVL LDITPMMGV L DGVLME LQDC ALPLLKD VIA TDKEDVAFKD LDVAILVGSM PRREGMERKD LLKANVKIFK SQGAALDKYA KKS VKVIVVG NPANTNCLTA SKSAPSIPKE NFSC LTRLDH NRAKAQIALK LGVTANDVKN VIIWGNHSST QYPDVNHAKV KLQGKEVGVY EALKDDSWLK GEFVTTVQQR GAAVIKARKL SSAMSAAKAI CDHVRDIWFG TPEGEFVSMG VISDGNSYGV PDDL LYSFPV VIKNKTWK FV EGLPINDFSR EKMDLTAKEL TEEKESAFEF LSSALEHHHH HH
Sequence Length	334
Applicable Applications for MDH1 active protein	SDS-PAGE
Antigen Species	Human
Tag Information	His-tag
Biological Activity	Specific activity is > 250 units/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.
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for MDH1 active protein	MDH1 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, MDH1 is localized to the cytoplasm and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria. This protein also regulates p53-dependent cell-cycle arrest and apoptosis in response to glucose deprivation. Recombinant human MDH1 protein, fused to His-tag at C-terminus, was expressed in E Coli and purified by using conventional chromatography.
Product Categories/Family for MDH1 active protein	Cancer
References	Youn HD., et al. (2009) Cell Death Differ. 16 (5):738-48; Wayne MM., et al (2005) J Cell Biochem. 94 (4):763-73.;

NCBI AND UNIPROT INFORMATION

NCBI GI #	5174539
NCBI GeneID	4190
NCBI Accession #	NP_005908
NCBI GenBank Nucleotide #	NM_005917.3
UniProt Accession #	P40925; Q6I9V0; B2R5V5; B4DUN2; B7Z3I7; F5H098
Molecular Weight	37.4 kDa (342aa), confirmed by MALDI-TOF
NCBI Official Full Name	malate dehydrogenase, cytoplasmic isoform MDH1
NCBI Official Synonym Full Names	malate dehydrogenase 1
NCBI Official Symbol	MDH1
NCBI Official Synonym Symbols	MDHA; MOR2; MDH-s; HEL-S-32; MGC:1375
NCBI Protein Information	malate dehydrogenase, cytoplasmic; malate dehydrogenase, peroxisomal
UniProt Protein Name	Malate dehydrogenase, cytoplasmic
UniProt Gene Name	MDH1
UniProt Synonym Gene Names	MDHA

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.