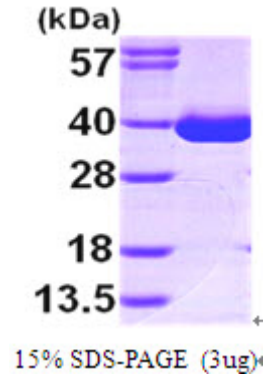


AR09603PU-N**Human MDH1 (1-334, His-tag) - Purified**

Alternate names:	MDHA, Malate dehydrogenase, cytoplasmic
Quantity:	0.1 mg
Concentration:	1.0 mg/ml (determined by Bradford assay)
Background:	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.
Uniprot ID:	P40925
NCBI:	NP_005908
GeneID:	4190
Species:	Human
Source:	E. coli
Format:	State: Liquid purified protein Purity: >95% by SDS-PAGE Buffer System: 20 mM Tris-HCl Buffer (pH 8.0) containing 10% Glycerol
Description:	Recombinant human MDH1 protein, fused to His-tag at C-terminus, was expressed in E.coli and purified by using conventional chromatography. AA Sequence: MSEPIRVLVT GAAGQIAYSL LYSIGNGSVF GKDQPIILLVL LDITPMMGVLDGVLMELODC ALPLLLKDVIAATDKEDVAFKD LDVAILVGSM PRREGMERKD LLKANVKIFK SQGAALDKYA KKSVKVIVVG NPANTNCLTA SKSAPSIPKE NFSCLTRLDH NRAKAQIALK LGVTANDVKN VLIWGNHSST QYPDVNHAKV KLQGKEVGVY EALKDDSWLK GEFVTVQQR GAAVIKARKL SSAMSAAKAI CDHVRDIWFG TPEGEFVSMG VISDGNSYGV PDDLLYSFPV VIKNKTWKFV EGLPINDFSR EKMDLTAKEL TEEKESAFEF LSSALEHHHHH HH Biological Activity: Specific activity is > 8 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 pH 7.5 at 25°C (see "Protocols"). Molecular weight: 37.4 kDa (342aa), confirmed by MALDI-TOF
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	Youn HD., et al. (2009) Cell Death Differ. 16(5):738-48 Waye MM., et al (2005) J Cell Biochem. 94(4):763-73.
Protocols:	Activity Assay 1. Prepare assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 100 mM Potassium phosphate, 0.13 mM beta-nicotinamide adenine dinucleotide, reduced form, 0.25 mM oxalacetic acid.

2. Add recombinant MDH protein with various concentrations (0.1ug, 0.5ug, 1ug) in assay buffer.
3. Mix by inversion, equilibrate to 1°C, and monitor at A340nm until the value is constant using a spectrophotometer.
4. Record the increase at A340nm for approximately 2 minutes.

Pictures:



Recombinant human MDH1, 1-334aa, His-tagged

