

Product datasheet for PH300298

MDH1 (NM_005917) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	MDH1 MS Standard C13 and N15-labeled recombinant protein (NP_005908)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200298
Predicted MW:	36.4 kDa
Protein Sequence:	>RC200298 protein sequence Red=Cloning site Green=Tags(s)

MSEPIRVLVTGAAGQIAYSLLYSIGNGSVFGKDQPIILVLLDITPMMGVLDGVLMEQLDCALPLLKDZIA
TDKEDVAFKDLDAIVL VGSMPPREGMERKDLLKANVKIFKSQGAALDKYAKKSVKIVVGNPANTNCLTA
SKSAPSIPKENFSCLTRLDHNRKAQIALKLGVTANDVKNV I I WGNHSSTQYPDVNHAKVKLQGKEVGVY
EALKDDSWLKGEFVTTVQQRGA AVIKARKLSSAMSAAKAICDHVRDIWFGTPEGEFVSMGVI SDGNSYGV
PDDL LYSFPVVIKNKTWK FVEGLPINDFSREKMDLTAKELTEEKESAFEF LSSA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_005908</u>
RefSeq Size:	1665
RefSeq ORF:	1002
Synonyms:	DEE88; EIEE88; HEL-S-32; KAR; MDH-s; MDHA; MGC:1375; MOR2
Locus ID:	4190



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UniProt ID: [P40925](#), [V9HWF2](#)

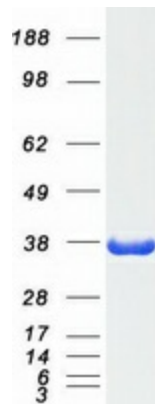
Cytogenetics: 2p15

Summary: This gene encodes an enzyme that catalyzes the NAD/NADH-dependent, reversible oxidation of malate to oxaloacetate in many metabolic pathways, including the citric acid cycle. Two main isozymes are known to exist in eukaryotic cells: one is found in the mitochondrial matrix and the other in the cytoplasm. This gene encodes the cytosolic isozyme, which plays a key role in the malate-aspartate shuttle that allows malate to pass through the mitochondrial membrane to be transformed into oxaloacetate for further cellular processes. Alternatively spliced transcript variants have been found for this gene. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is localized in the peroxisomes. Pseudogenes have been identified on chromosomes X and 6. [provided by RefSeq, Feb 2016]

Protein Families: Druggable Genome

Protein Pathways: Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways, Pyruvate metabolism

Product images:



Coomassie blue staining of purified MDH1 protein (Cat# [TP300298]). The protein was produced from HEK293T cells transfected with MDH1 cDNA clone (Cat# [RC200298]) using MegaTran 2.0 (Cat# [TT210002]).