

## Product datasheet for **SC335160**

### MDH2 (NM\_001282403) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MDH2 (NM_001282403) Human Untagged Clone
Tag:	Tag Free
Symbol:	MDH2
Synonyms:	DEE51; EIEE51; M-MDH; MDH; MGC:3559; MOR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC335160 representing NM_001282403. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGCTCTCCGCCCTCGCCGGCCTGCCAGCGCTGCTCTCCGCCGAGCTTCAGCACCTCGGCCAGAAC
AATGCTAAAGTAGCTGTGCTAGGGGCTCTGGAGGCATCGGGCAGCCACTTTCACCTCTCTGAAGAAC
AGCCCCTTGGTGAGCCGCTGACCCTCTATGATATCGCGCACACCCGGAGTGGCCGAGATCTGAGC
CACATCGAGACCAAAGCCGCTGTGAAAGGCTACCTCGGACCTGAACAGCTGCCTGACTGCCTGAAAGGT
TGTGATGTGGTAGTTATTCGGCTGGAGTCCCCAGAAAGCCAGGCATGACCCGGGACGACCTGTTCAAC
ACCAATGCCACGATTGTGGCCACCCTGACCCTGCCTGTGCCAGCACTGCCCGAAGCCATGATCTGC
GTATTGCCAATCCGGGTTTGGATCCAGCTCGAGTCAACGTCCTGTATTGGTGGCCATGCTGGGAAG
ACCATCATCCCCCTGATCTCTCAGTGCACCCCCAAGGTGGACTTCCCCAGGACCAGCTGACAGCACTC
ACTGGGCGGATCCAGGAGCCGGCACGGAGGTGGTCAAGGCTAAAGCCGGAGCAGGCTCTGCCACCTC
TCCATGGCGTATGCCGGCCCGCTTTGTCTTCTCCCTTGTGGATGCAATGAATGGAAAGGAAGGTGT
GTGGAATGTTCTTCGTTAAGTACAGGAAACGGAATGTACCTACTTCTCCACACCGCTGCTGCTGGG
AAAAAGGCATCGAGAAGAACCTGGGCATCGGCAAAGTCTCTCTTTGAGGAGAAGATGATCTCGGAT
GCCATCCCCGAGCTGAAGCCTCCATCAAGAAGGGGAAGATTTCTGTAAGACCCCTGAAGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_001282403
Insert Size:	891 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001282403.1</a>
<b>RefSeq Size:</b>	2142 bp
<b>RefSeq ORF:</b>	891 bp
<b>Locus ID:</b>	4191
<b>UniProt ID:</b>	<a href="#">P40926</a>
<b>Cytogenetics:</b>	7q11.23
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways, Pyruvate metabolism
<b>MW:</b>	30.9 kDa
<b>Gene Summary:</b>	<p>Malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. The protein encoded by this gene is localized to the mitochondria and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2013]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.</p>