OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC237266

MDH2 (NM_001282403) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MDH2 (NM_001282403) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MDH2
Synonyms:	DEE51; EIEE51; M-MDH; MDH; MGC:3559; MOR1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237266 representing NM_001282403 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCTCTCCGCCCTCGCCCGGCCTGCCAGCGCTGCTCTCCGCCGCAGCTTCAGCACCTCGGCCCAGAACA ATGCTAAAGTAGCTGTGCTAGGGGCCTCTGGAGGCATCGGGCAGCCACTTTCACTTCTCCTGAAGAACAG CCCCTTGGTGAGCCGCCTGACCCTCTATGATATCGCGCACACACCCGGAGTGGCCGCAGATCTGAGCCAC ATCGAGACCAAAGCCGCTGTGAAAGGCTACCTCGGACCTGAACAGCTGCCTGACTGCCTGAAAGGTTGTG ATGTGGTAGTTATTCCGGCTGGAGTCCCCAGAAAGCCAGGCATGACCCGGGACGACCTGTTCAACACCAA TGCCACGATTGTGGCCACCCTGACCGCTGCCTGTGCCCAGCACTGCCCGGAAGCCATGATCTGCGTCATT GCCAATCCGGGTTTGGATCCAGCTCGAGTCAACGTCCCTGTCATTGGTGGCCATGCTGGGAAGACCATCA TCCCCCTGATCTCTCAGTGCACCCCCAAGGTGGACTTTCCCCAGGACCAGCTGACAGCACTCACTGGGCG GATCCAGGAGGCCGGCACGGAGGTGGTCAAGGCTAAAGCCGGAGCAGGCTCTGCCACCCTCTCCATGGCG TATGCCGGCGCCCGCTTTGTCTTCTCCCTTGTGGATGCAATGAATGGAAAGGAAGGTGTTGTGGAATGTT CCTTCGTTAAGTCACAGGAAACGGAATGTACCTACTTCTCCACACCGCTGCTGCTTGGGAAAAAGGGCAT CGAGAAGAACCTGGGCATCGGCAAAGTCTCCTCTTTTGAGGAGAAGATGATCTCGGATGCCATCCCCGAG CTGAAGGCCTCCATCAAGAAGGGGGAAGATTTCGTGAAGACCCTGAAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

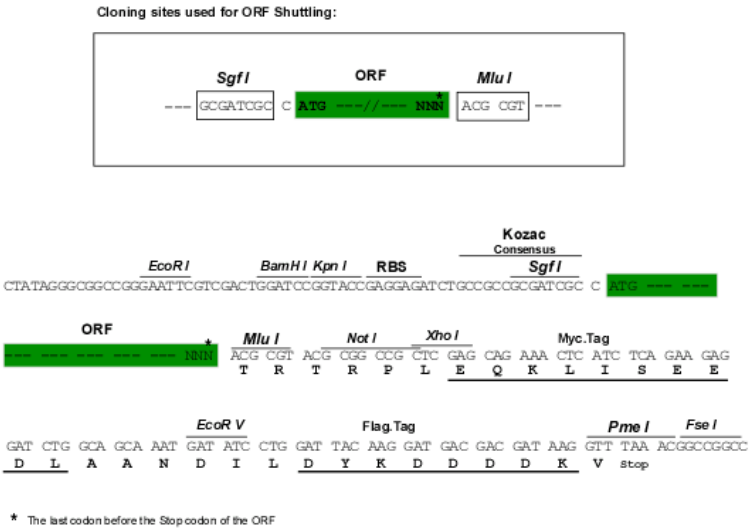
>RC237266 representing NM_001282403
Red=Cloning site Green=Tags(s)

MLSALARPASAALRRSFSTSAQNNAKVAVLGASGGIGQPLSLLLKNSPLVSRLTLYDIAHTPGVAADLSH
IETKAAVKGYLGPEQLPDCLKGCDVVVIPAGVPRKPGMTRDDLFNTNATIVATLTAACAQHCPEAMICVI
ANPGLDPARVNVPVIGGHAGKTIIPLISQCTPKVDFPQDQLTALTGRIQEAGTEVVKAKAGAGSATLSMA
YAGARFVFSLVDAMNGKEGVVECSFVKSQETECTYFSTPLLLGKKGIEKNLGIGKVSSFEEKMISDAIPE
LKASIKKGEDFVKTLK

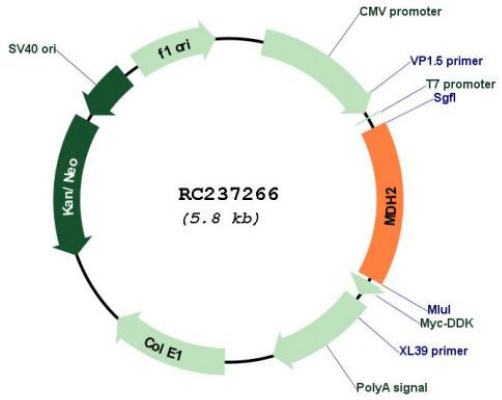
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001282403

ORF Size: 888 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	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).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
RefSeq:	NM_001282403.2
RefSeq Size:	2142 bp
RefSeq ORF:	891 bp
Locus ID:	4191
UniProt ID:	P40926
Cytogenetics:	7q11.23
Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways, Pyruvate metabolism
MW:	31.3 kDa
Gene Summary:	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]