

Product datasheet for **RG237266**

MDH2 (NM_001282403) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MDH2 (NM_001282403) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MDH2
Synonyms:	DEE51; EIEE51; M-MDH; MDH; MGC:3559; MOR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237266 representing NM_001282403. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCTCTCCGCCCTCGCCCGCCTGCCAGCGTCTCTCCGCCGAGCTTCAGCACCTCGGCCAGAAC
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TGTGATGTGGTAGTTATCCGGCTGGAGTCCCCAGAAAGCCAGGCATGACCCGGGACGACCTGTTCAAC
ACCAATGCCACGATTGTGGCCACCCTGACCCTGCCTGTGCCAGCACTGCCCGAAGCCATGATCTGC
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ACTGGGCGGATCCAGGAGCCGGCACGGAGGTGGTCAAGGCTAAAGCCGGAGCAGGCTCTGCCACCTC
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GTGGAATGTTCTTCGTTAAGTACAGGAAACGGAATGTACTTCTCCACACCGCTGCTGCTGGG
AAAAAGGCATCGAGAAGAACCTGGGCATCGGCAAAGTCTCTCTTTGAGGAGAAGATGATCTCGGAT
GCCATCCCCGAGCTGAAGGCCTCCATCAAGAAGGGGAAGATTTCTGTAAGACCCCTGAAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237266
 Blue=ORF Red=Cloning site Green=Tag(s)

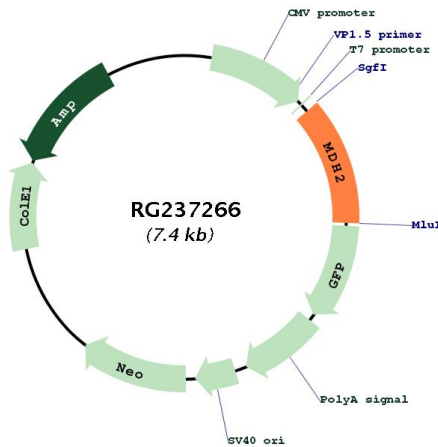
MLSALARPASAALRRSFSTSAQNNKAVAVLGASGGIGQPLSLLLKNSPLVSRLTLYDIAHTPGVAADLS
 HIETKAAVKGYLGPEQLPDCLKGCDVVVIPAGVPRKPGMTRDDL FNTNATIVATLTAACAQHCPEAMIC
 VIANPGLDPA RVNVPVIGGHAGKTI IPLISQCTPKVDFPQDQLTALTGRIQEAGTEVVKAKAGAGSATL
 SMAYAGARFVFSLV DAMNGKEGVVECSFVKSQTECTYFSTPLLLGKKGIEKNLGI GKVSSFEEKMISD
 AIPELKASIKKGEDFVKTLK
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYP SGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEL
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

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).
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]