

## Product datasheet for RC230787L2V

## OriGene Technologies, Inc.

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## MDH1 (NM\_001199112) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

**Product Name:** MDH1 (NM\_001199112) Human Tagged ORF Clone Lentiviral Particle

Symbol: MDH1

Synonyms: DEE88; EIEE88; HEL-S-32; KAR; MDH-s; MDHA; MGC:1375; MOR2

Mammalian Cell

Selection:

None

**Vector:** pLenti-C-mGFP (PS100071)

Tag: mGFP

**ACCN:** NM\_001199112

ORF Size: 1005 bp

**ORF Nucleotide** 

OTI Disclaimer:

The ORF insert of this clone is exactly the same as(RC230787).

Sequence:

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.

RefSeq: <u>NM 001199112.1</u>, <u>NP 001186041.1</u>

RefSeq Size: 1364 bp
RefSeq ORF: 738 bp
Locus ID: 4190
UniProt ID: P40925
Cytogenetics: 2p15

**Protein Families:** Druggable Genome





## MDH1 (NM\_001199112) Human Tagged ORF Clone Lentiviral Particle - RC230787L2V

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

Pyruvate metabolism

MW: 36.4 kDa

**Gene 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]