

Product datasheet for **RC219389**

ME2 (NM_002396) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ME2 (NM_002396) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ME2
Synonyms:	ODS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC219389 representing NM_002396
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGTCCCGTTAAGAGTAGTTCCACCACTTGTACTTTGGCATGTCGACATTTGCACATAAAAGAAA
 AAGGCAAGCCACTTATGCTGAACCAAGAACAACAAGGGAATGGCATTACTTTACAAGAACGACAAAT
 GCTTGGTCTTCAAGGACTTCTACCTCCCAAAATAGAGACACAAGATATTCAAGCCTTACGATTTATAGA
 AACTTGAAGAAAATGACTAGCCCTTTGGAAAAATATATCTACATAATGGGAATACAAGAAAGAAATGAGA
 AATTGTTTTATAGAATACTGCAAGATGACATTGAGAGTTAATGCCAATTGTATATACACCGACGGTTGG
 TCTTGCCTGCTCCAGTATGGACACATCTTTAGAAGACCTAAGGGATTATTTATTTTCGATCTCAGACAGA
 GGTCAATGTTAGATCAATTGTGGATAACTGGCCAGAAAATCATGTTAAGGCTGTTGTAGTGACTGATGGAG
 AGAGAATTCTGGGTCTTGGAGATCTGGGTGTCTATGGAATGGGAATCCAGTAGGAAAATTTGTTTGTA
 TACAGCTTGTGCAGGAATACGGCCTGATAGATGCCTGCCAGTGTGTATTGATGTGGGAACGATAATATC
 GCACTCTTAAAAGACCAATTTACATGGGCTTGTACCAGAAAACGAGATCGCACACAACAGTATGATGACC
 TGATTGATGAGTTTATGAAAGCTATTACTGACAGATATGGCCGGAACACACTCATTCAAGTTCGAAGACTT
 TGGAAATCATAATGCATTGAGTTCTTGAGAAAAGTACCGAGAAAAATATTGTACTTTCAATGATGATATT
 CAAGGGACAGCTGCAGTAGCTCTAGCAGGTCTTCTTGCAGCACAAAAAGTTATTAGTAAACCAATCTCCG
 AACACAAAATCTTATTCCTTGGAGCAGGAGAGGGCTGCTCTTGGAAATGCAAACTTTATAGTTATGTCTAT
 GGTAGAAAATGGCCTGTGAGAACAGAGGCACAAAAGAAAATCTGGATGTTTGACAAGTATGGTTTATTA
 GTTAAGGGACGGAAAGCAAAAATAGATAGTTATCAGGAACCTTACTCACTCAGCCCCAGAGAGCATAC
 CTGATACTTTTGAAGATGCAGTGAATATACTGAAGCCTTCAACTATAATTGGAGTTGCAGGTGCGCCG
 TCTTTTCACTCCTGATGTAATCAGAGCCATGGCCTCTATCAATGAAAGGCCTGTAATATTTGCATTAAGT
 AATCCTACAGCACAGGCAGAGTGACCGGCTGAAGAAGCATATACACTTACAGAGGCAGGTGTTTGTGTTG
 CCAGTGGCAGTCCATTTGGGCCAGTGAAGTACAGATGGGCGAGTCTTTACACCAGGTCAAGGAAACAA
 TGTTTTATTTTTCCAGGTGTGGCTTTAGCTGTTATTCTCTGTAACACCCGGCATATTAGTGACAGTGT
 TTCCTAGAAGCTGCAAAGGCCCTGACAAGCCAATTGACAGATGAAGAGCTAGCCCAAGGGAGACTTTACC
 CACCGCTTGCTAATATTCAGGAAGTTTCTATTAACATTGCTATTAAGTTACAGAATACCTATATGCTAA
 TAAAATGGCTTTCCGATACCCAGAACCTGAAGACAAGGCCAAATATGTTAAAGAAAGAACATGGCGGAGT
 GAATATGATTCCTGCTGCCAGATGTGTGAATGGCCAGAATCTGCATCAAGCCCTCTGTGATAACAG
 AA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219389 representing NM_002396
 Red=Cloning site Green=Tags(s)

MLSRLRVVSTTCTLACRHLHIKEKGLPLMLNPRTNKGMAFTLQERQMLGLQGLLPPKIETQDIQALRFHR
 NLKMTSPLEKYIYIMGIQERNEKLFYRILQDDIESLMPVYVPTVGLACSQYGHIFRRPKGLFISISDR
 GHVRSIVDNWPNHVKAVVVDGERILGLDGLVYGMGIPVGLCLYTACAGIRPDRCLPVCIDVGTDNI
 ALLKDPFYMGLYQKRDRTQYDDLIDEFMKAITDRYGRNTLIQFEDFGNHNAFRFLRKYREKYCTFNDDI
 QGTAVALAGLLAAQVISKPISEHKILFLGAGEAALGIANLIVMSMVENGLSEQEAQKIIWMFDKYGLL
 VKGRKAKIDSYQEPFTHSAPESIPDTFEDAVNILKPSTIIGVAGAGRLFDPDVIRAMASINERPVIFALS
 NPATAQAECTAEEAYTLTEGRCLFASGSPFGPVKLTGDRVFTPGQNNVYIFPGVALAVILCNTRHISDSV
 FLEAAKALTSQLTDEELAQGRLYPLANIQEVSNIAIKVTEYLANKMAFRYPEPEDKAKYVKERTWRS
 EYDSLPLDVEWPEWPESSPPVITE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6276_a08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002396

ORF Size: 1752 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_002396.5](#)

RefSeq Size: 2730 bp

RefSeq ORF: 1755 bp

Locus ID: 4200

UniProt ID: [P23368](#)

Cytogenetics: 18q21.2

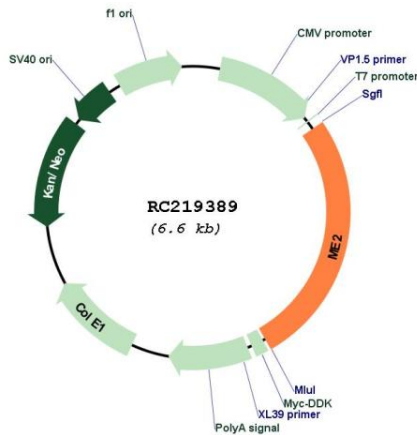
Domains: malic

Protein Pathways: Pyruvate metabolism

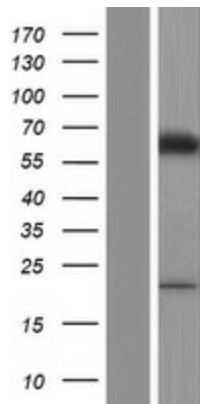
MW: 65.44 kDa

Gene Summary: This gene encodes a mitochondrial NAD-dependent malic enzyme, a homotetrameric protein, that catalyzes the oxidative decarboxylation of malate to pyruvate. It had previously been weakly linked to a syndrome known as Friedreich ataxia that has since been shown to be the result of mutation in a completely different gene. Certain single-nucleotide polymorphism haplotypes of this gene have been shown to increase the risk for idiopathic generalized epilepsy. Alternatively spliced transcript variants encoding different isoforms found for this gene. [provided by RefSeq, Dec 2009]

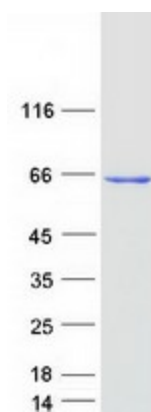
Product images:



Circular map for RC219389



Western blot validation of overexpression lysate (Cat# [LY419348]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219389 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ME2 protein (Cat# [TP319389]). The protein was produced from HEK293T cells transfected with ME2 cDNA clone (Cat# RC219389) using MegaTran 2.0 (Cat# [TT210002]).