

## Product datasheet for **SC328784**

### ME2 (NM\_001168335) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ME2 (NM_001168335) Human Untagged Clone
Tag:	Tag Free
Symbol:	ME2
Synonyms:	ODS1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001168335, the custom clone sequence may differ by one or more nucleotides

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ATGTTGTCCCGTTAAGAGTAGTTTCCACCACTTGTACTIONTGGCATGTCGACATTTGCAC
ATAAAAGAAAAAGCAAGCCACTTATGCTGAACCCAAGAACAAGGGAATGGCATT
ACTTTACAAGAACGACAAATGCTTGGTCTTCAAGGACTTCTACCTCCCAAATAGAGACA
CAAGATATTCAAGCCTTACGATTTATAGAAAATTGAAGAAAATGACTAGCCCTTTGGAA
AAATATATCTACATAATGGGAATACAAGAAAGAAATGAGAAATGTTTTATAGAATACTG
CAAGATGACATTGAGAGTTAATGCCAATTGTATATACACCGACGGTTGGTCTTGCCTGC
TCCCGATGGACACATCTTTAGAAGACCTAAGGGATTATTTATTTTCGATCTCAGACAGA
GGTCATGTTAGATCAATTGTGGATAACTGGCCAGAAAATCATGTTAAGGCTGTTGTAGTG
ACTGATGGAGAGAGAATTCTGGGTCTTGGAGATCTGGGTGTCTATGGAATGGGAATTCCA
GTAGGAAAACCTTTGTTTGTATACAGCTTGTGCAGGAATACGGCCTGATAGATGCCTGCCA
GTGTGATTGATGTGGAACTGATAATATCGCACTCTTAAAAGACCCATTTTACATGGGC
TTGTACCAGAAACGAGATCGCACACAACAGTATGATGACCTGATTGATGAGTTTATGAAA
GCTATTACTGACAGATATGGCCGGAACACACTCATTTCAGTTTCAAGACTTTGGAAATCAT
AATGCATTCAGGTTCTTGAGAAAGTACCGAGAAAAATATTGTACTTTCAATGATGATATT
CAAGGGACAGCTGCAGTAGCTCTAGCAGGCTCTTCTTGCAGCACAAAAAGTTATTAGTAAA
CCAATCTCCGAACACAAAAATCTTATTCTTGGAGCAGGAGAGGCTGCTCTTGGAAATTGCA
AATCTTATAGTTATGCTATGGTAGAAAATGGCCTGTGAGAACAAAGAGGCACAAAAGAAA
ATCTGGATGTTTGAAGAAGTATGGTTTATTAGTTAAGGGACGGAAAGCAAAAATAGATAGT
TATCAGGAACCATTTACTCACTCAGCCCCAGAGAGCATACCTGATACTTTTGAAGATGCA
GTGAATATACTGAAGCCTTCAACTATAATTGGAGTTGCAGGTGCTGGCCGCTTTTCACT
CCTGATGTAATCAGAGCCATGGCCTCTATCAATGAAAGGCCTGTAATTTGCATTAAGT
AATCCTACAGCACAGGCAGAGTGCACGGCTGAAGAAGCATATACACTTACAGAGGCAGG
TGTTTGTGGCCAGTGGCAGTCCATTTGGGCCAGTGAACTTACAGATGGGCGAGTCTTT
ACACCAGGTCAAGGAAACAATGTTTATATTTTCCAGGTTACAGAATACCTATATGCTAA

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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001168335
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_001168335.1</a> , <a href="#">NP_001161807.1</a>
<b>RefSeq Size:</b>	4468 bp
<b>RefSeq ORF:</b>	1440 bp
<b>Locus ID:</b>	4200
<b>UniProt ID:</b>	<a href="#">P23368</a>
<b>Cytogenetics:</b>	18q21.2
<b>Protein Pathways:</b>	Pyruvate metabolism

**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]

Transcript Variant: This variant (2) lacks two alternate in-frame exons in the 3' coding region, compared to variant 1. The resulting protein (isoform 2) is shorter, compared to isoform 1.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.