

## Product datasheet for **SC316021**

### **MPEG1 (NM\_001039396) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MPEG1 (NM_001039396) Human Untagged Clone
Tag:	Tag Free
Symbol:	MPEG1
Synonyms:	Mpg-1; MPG1; MPS1; P-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001039396, the custom clone sequence may differ by one or more nucleotides

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ATGAACAACCTTCAGGGCCACCCTCTTCTGGGCGAGCGCAGCATGGGCTAAATCAGGCAAGCCTTCGG
GAGAGATGGACGAAGTTGGAGTTCAAAAATGCAAGAATGCCTTGAAACTACCTGCCTGGAAGTCTACC
TGGAGGGGGCTGGGACAATCTGCGGAATGTGGACATGGGACGAGTTATGGAATTGACTTACTCCAACCTGC
AGGACAACAGAGGATGGACAGTATATCATCCCTGATGAAATCTTACCATTCCCCAGAAAACAGAGCAACC
TGGAGATGAACTCAGAAATCCTGGAATCCTGGGCAAATACCAGAGTAGCACCTCTACTCCATCAACAC
AGAACTCTCTCTTTTTCCAAAGTCAATGGCAAGTTTTCCACTGAGTTCCAGAGGATGAAGACCCTCCAA
GTGAAGGACCAAGCTATAACTACCCGAGTTCAGGTAAGAAACCTCGTCTACACAGTCAAAAATCAACCCAA
CTTTAGAGCTAAGCTCAGGTTTTAGGAAGGAACCTTGACATCTCTGACCGTCTAGAGAACAACCAGAC
GAGGATGGCCACCTACCTGGCAGAACTCCTGGTGTCAACTATGGCACCCACGTACCACCAGTGTGCGAC
GCTGGGGTCTCTTATTCAGGAGGACCACCTCAGGGCCTCCTTCTCCAAGACAGCCAGAGCAGTGTGTA
GTGCCGTGACCGCTCTGCTGGACTTGCCTTTCAAACACCGTGAAGTTCAAATTTGAGGAAAATATAC
CTGCGAGAATGTCTCACCAGAGCTACCTCTCAAACCGAACCAACTCCAGGGTGCAGAGCATTGGAGGG
GTTCTTTTTTACCAGGCATCACCTCCAGGCCTGGCAGCAGGGTATACCAACCACTGGTGGCCATCG
ACCGCTCTGGCCTGCCGCTGCATTTCTTCAACCCCAACATGTACCTGACTTGCCAGGCCCCCTGGT
GAAGAAGTGTCAAAGACAGTGGAAACTGCTGTGAAGCGTATTATACATTCAACACCTACCCTGGCTGC
ACAGATCTCAATTCTCCCAACTCAATTTTTCAGGCCAACACGGATGATGGCTCCTGCGAGGGGAAAATGA
CCAATCTCTTTTCGGTGGGGTTTATCAGGAATGCACTCAGCTCTCAGGGAATAGGGATGTCTCTCTGTG
CCAAAAGTTGGAGCAGAAGAATCCACTCACTGGTATTTCTCTGCCCTCTGGCTACTCCCCGGTGCAC
CTGTTATCCCAGATCCACGAGGAGGGTTACAACCACCTGGAGTGCATCGAAAGTGCACCTCTCTGTCT
TCTGCAAGACCGTGTGTGAAGATGTGTTCCAGGTGGCAAAGCTGAATTTAGGGCTTTTTGGTGTGTGGC
CAGCAGCCAAGTACCTGAAAACCTCAGGACTGCTTTTTGGGGCCTCTTACGACAGCAAGAGCATAAACCC
ATGACAAATGCACAGTATGCCAGCCGGCTACTTTCCACTGAGACTCTTTGAAAACCTCAAGGTATGTG
TTTCTCAGGACTATGAGTTGGGAAGCAGGTTTGCGGTCCCCTTTGGCGGGTTCTTTAGCTGCACAGTTG
GAACCCCTGGTAGATCCTGCTATATCCAGAGATTTAGGGGCACCGTCTCTGAAAAGTGGCCCGGGGGC
TTCAGCCAGCACCCAGCCCTCATCAGCGATGGATGCCAAGTGTCTATTGCGTCAAATCCGGGCTCTTCA
CAGGAGGGTCCCTGCCCCCTGCCAGGCTCCACCTTTACCCGGCCACCCTCATGAGTCAGGCTGCCAC
CAATACTGTCATAGTGACCAATTCTGAGAATGCGAGATCTGGATTAAGACTCCAGACCCACCAGTGG
AGGCTGGGAGAACCGATAGAGCTGCGGAGGGCCATGAATGTCATCCATGGGGATGGTGGTGTCTGTGAG
GAGGGGCTGCAGCTGGGGTCCAGTGGGGTACCACCATTCTGGCTGTTGTTATCACCTTGGCCATCTA
CGGCACCCGGAAGTTCAAGAAGAAAGCATATCAGGCAATTGAGGAAAGGCAGAGTTTGGTCCAGGCACT
GCAGCAACTGGAGACCACTTACCAAGAGCAGGGGCAGAGTCCAGCTTAA
    
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**Restriction Sites:** Please inquire  
**ACCN:** NM\_001039396

**OTI Disclaimer:** 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 [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 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.

**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\\_001039396.1](#), [NP\\_001034485.1](#)

**RefSeq Size:** 4527 bp

**RefSeq ORF:** 2151 bp

**Locus ID:** 219972

**UniProt ID:** [Q2M385](#)

**Cytogenetics:** 11q12.1

**Protein Families:** Transmembrane

**Gene Summary:**

Plays a key role in the innate immune response following bacterial infection by inserting into the bacterial surface to form pores (By similarity). By breaching the surface of phagocytosed bacteria, allows antimicrobial effectors to enter the bacterial periplasmic space and degrade bacterial proteins such as superoxide dismutase sodC which contributes to bacterial virulence (By similarity). Shows antibacterial activity against a wide spectrum of Gram-positive, Gram-negative and acid-fast bacteria (PubMed:23753625, PubMed:26402460, PubMed:30609079). Reduces the viability of the intracytosolic pathogen *L.monocytogenes* by inhibiting acidification of the phagocytic vacuole of host cells which restricts bacterial translocation from the vacuole to the cytosol (By similarity). Required for the antibacterial activity of reactive oxygen species and nitric oxide (By similarity).[UniProtKB/Swiss-Prot Function]