

Product datasheet for **MC229246**

Opa1 (NM_001199177) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Opa1 (NM_001199177) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Opa1
Synonyms:	1200011N24Rik; AI225888; AI847218; lilr3; mKIAA0567
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC229246 representing NM_001199177
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGGCGAGCAGGTGCGGCCGCTGGCCTGTGAAGTCTGCCAATCCTTAGTGAACACAGTTCTGGAA
 TACAAAGAAACGTACCGCTCCAAAACTCCATCTGGTTTCACGAAGTATTTATCGTTCACATCATCCTGC
 CCTCAAGCTTCAAAGACCCCAACTAAGGACACCATTTTCAGCAGTTCTCTTCTCTAACTCACCTTTTATTA
 CATAAATTGAACTTTCTCCAATTAATATGGCTACCAGCCCCGAGGAACCTTTGGCCAGCAAGGTTAG
 CTGCAAGACTCTTAAACTTCGATATATCATACTGGGATCTGCTGTTGGAGGTGGCTATACAGCCAAAA
 AACCTTCGATGAATGAAAGATATGATACCAGACCTTAGTACTATAAGTGGATTGTGCCTGACTTTATA
 TGGGAAATTGATGAGTATATTGATTTGGAGAAAATTAGAAAAGCCCTGCCAGCTCAGAAGACCTTGCCA
 GTTTAGCTCCCGACCTGGACAAGATTACTGAGAGCCTCAGCTTGTGAAGGACTTCTTCACTGCAGGTCC
 CAAATTGGTTAGTGAAGTCTAGAAGTTTCTGAGGCCCTTCTTGTAGTTTCACTGGAGAAACAGCA
 TTTCGAGCAACAGATCATGGATCTGAAAGTGACAAGCATTACAGGAAGGTGTGAGACAAAGAAAAGATTG
 ACCAACTTCAAGAAGAACTTCTGCATACTCAGTTAAAGTATCAGAGGATCTTGGAGCGCCTGGAAAAGGA
 GAACAAAGAGCTGCGGAAGCTGGTGTGCAAGAGGACGACAAAGGCATCCACCACAGGAAGCTCAAGAAA
 TCTTTGATTGATATGATTCTGAAGTCTTGTATGTTCTTCTGATTATGATGCCAGTTACAATACACAAG
 ATCACCTACCACGGGTTGTTGTGGTTGGAGATCAGAGTCTGGGAAAACAGTGTGCTGGAAATGATTGC
 TCAGGCCCGGATCTCCCGAGAGGTCGGCGAGATGATGACACGCTCTCCAGTGAAGGTGACTCTCAGT
 GAAGCCCTCACCATGTGGCCTGTTTAAAGTAGCTCTCGGGAATTTGATCTACCAAGGAGGAAGATC
 TTGCAGCATTAAAGACATGAAATCGAATCCGAATGAGGAAAAATGTGAAAGAAGTTGTACTGTTAGCCC
 CGAGACCATATCTCTAAATGTCAAAGCCCTGGGCTGCAGAGGATGGTGTCTCGTGGACTTGCCCTGGTGT
 ATCAACACCGTGACATCAGGCATGGCTCCCGACACAAAGGAAACTATTTTCAAGTATCAGCAAGGTTACA
 TGCAGAATCCTAACGCCATCATCTGTGCATCCAAGACGGATCCGTAGATGCTGAGCGCAGTATTGTTAC
 AGACTTGGTCAGTCAAATGGATCCTCATGGAAGAAGAACCATAATTTGTTTTGACCAAGTAGACCTGGCA
 GAAAAAATGTAGCCAGTCCAAGCAGGATACAACAGATAATTGAAGGCAAGCTCTTCCCAATGAAAGCTC
 TGGGTTATTTTGTGTCGTAACAGGAAAAGGAAACAGCTCTGAAAGTATTGAAGCTATAAGAGAGTATGA
 AGAGGAATTTTTTCAAGATTCAAACACTGCTAAAGACAAGCATGCTAAAGGCACACCAGGTACCACGAGA
 AATCTCAGCCTTGTGTGTCAGACTGCTTTTGGAAAATGGTTCGAGAGTCAAGTTGAACAACAGGCTGATA
 GTTTTAAAGCCACGCGCTTAAACCTAGAGACGGAATGGAAGAATAACTACCCGCGCTGCGAGAGCTCGA
 CAGGAATGAACCTTTGAAAAAGCTAAAAATGAGATCCTCGATGAGGTATCAGTCTGAGCCAGGTACAG
 CCAAAGCACTGGGAGGAAATCCTGCAGCAATCCCTGTGGGAACGAGTGTCAACACATGTGATTGAGAACA
 TCTACCTTCCAGCTGCCAGACCATGAATTCGGGAACATTTAACACCACAGTAGACATCAAGCTTAAACA
 GTGGACTGACAAGCAGCTTCTAATAAAGCAGTCGAGGTTGCCTGGGAGACTCTACAAGAGGAATTTTCC
 CGTTCATGACAGAACCCAAAGGAAAGGAACACGACGACATATTTGACAACTTAAGGAGGCTGTGAAGG
 AGGAGAGTATCAAGCGGCACAAGTGAACGACTTTGCCGAGGATAGCTTGAGGTTATTCAGCACAAATGC
 TTTGGAAGACCGGTCCATATCAGATAAGCAACAGTGGGATGCAGCCATTTACTTCATGGAAGAGGCGCTT
 CAAGGTCGTCTCAAGGATCTGAAAATGCTATTGAAAACATGATTGGGCCAGACTGGAAAAAGAGGTGGA
 TGTACTGGAAGAATCGGACCCAAGAGCAGTGTGTTTCAACGAAACCAAGAACGAGTTGGAGAAGATGCT
 GAAGGTTAATGATGAGCACCCAGCTTACCTGGCAAGTATGAGATTACCACAGTCCGGAAGAACCTGGAG
 TCTCGAGGAGTGGAAAGTCGATCCAAGCTTGATTAAGGATACTTGGCATCAAGTTTATAGAAGACATTTCT
 TAAAAACAGCTCTAAATCATTGTAACTTTGTGCGCAGAGGTTTTTATTACTACCAGAGGCATTTTATAGA
 TTCTGAGCTGGAATGCAATGACGTGGTCTGTTTTGGCGAATACAGCGCATGCTCGCTATCACTGCCAAT
 ACATTAAGGCAGCAGCTTACAAACTGAAGTTAGGCGACTAGAGAAAAACGTTAAAGAGGTATTAGAAG
 ATTTTGCAGAAGACGGTGAAGAAGGTTAAATGCTCACTGGCAAACGAGTTCAGCTGGCAGAAGATCT
 CAAGAAAGTTAGAGAAATCAAGAAAAGCTTGATGCTTTCATTGAAGCTTTCACCAGGAGAAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms:	https://cdn.origene.com/chromatograms/ja3199_e09.zip
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001199177
Insert Size:	2937 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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_001199177.1 , NP_001186106.1
RefSeq Size:	6002 bp
RefSeq ORF:	2937 bp
Locus ID:	74143
Cytogenetics:	16 20.65 cM

Gene Summary:

Dynamin-related GTPase that is essential for normal mitochondrial morphology by regulating the equilibrium between mitochondrial fusion and mitochondrial fission (PubMed:11847212, PubMed:24616225, PubMed:26785494, PubMed:28746876). Coexpression of isoform 1 with shorter alternative products is required for optimal activity in promoting mitochondrial fusion (By similarity). Binds lipid membranes enriched in negatively charged phospholipids, such as cardiolipin, and promotes membrane tubulation. The intrinsic GTPase activity is low, and is strongly increased by interaction with lipid membranes (By similarity). Plays a role in remodeling cristae and the release of cytochrome c during apoptosis (PubMed:16839884, PubMed:16839885). Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space (PubMed:16839884, PubMed:16839885). Plays a role in mitochondrial genome maintenance (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer 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.