

Product datasheet for **RN205659**

Opa1 (NM_133585) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Opa1 (NM_133585) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Opa1
Synonyms:	MGC124921
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN205659 representing NM_133585
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTGGCGAGCAGGTGCGGCTGCCCTGGCCTGTGAAGTCTGCCAATCCTTAGTGAAGCACAGCTCTGGAG
 TACAAAGAAACGTACCGCTCCAAAAACTGCATCTGGTTTCCCGAAGTATTATCGTTCACATCATCCTGC
 CCTCAAGCTTCAAAGACCCCAATTAAGGACATCTTTTCAGCAATTCTCTCTCTAACTAACCTTTCTTTA
 CATAAATTGAACTTTCTCCAATAAATATGGCTACCAACCCCGCAGGAACCTTTGGCCAGCAAGGTTAG
 CTGCAAGGCTCTTAAACTTCGATATATTACTGGGACTGCTGTTGGAGGTGGCTATACAGCCAAAA
 AACCTTCGATGAATGAAAGATATGATACCAGACCTTAGTACTATAAGTGGATTGTGCCTGACTTTATA
 TGGGAAATTGATGAGTATATTGATTTGGAGAAAATCAGAAAAGCCCTCCCGATTGAGAAGACCTCGCCA
 ATTTTCGCTCCTGACCTGGACAAGATCGCCGAAAGCCTCAGCTTGTGAAGGATTTCTTCACTGCGGGTAC
 ACCTGGAGAAACAGCATTAGAGCAACAGATCATGGATCCGAAAGTGACAAGCACTATAGGAAGGTGCA
 GACAAAGAAAAGATTGACCAACTTCAGGAAGAACTTCTGCATACTCAGTTAAAGTATCAGAGGATCCTGG
 AGCGTTTGGAGAAGGAGAACAAAGAGTTGAGGAAGTTGGTGTGCAAGGATGACAAAGGCATCCACCA
 CAGGAAGCTCAAGAAATCTCTGATCGATATGTATTCTGAAGTTCTTGATGTCTTTCTGACTATGATGCC
 AGCTACAATACCCAAGATCATCTGCCACGGGTTGTTGGGTTGGAGATCAGAGTGTGAAAAACAAGTG
 TTCTGGAAATGATTGCTCAAGCAGCAATATCCACGAGGATCCGGTGAGATGATGACGCGCTCTCCAGT
 GAAGGTGACTCTCAGTGAAGGCCCTCACCACGTGGCCTTGTTAAAGACAGCTCCCGGAGTTTGACCTC
 ACCAAGGAGGAAGATCTGCAGCGTTAAGACATGAAATGAACTCCGGATGAGAAAAAATGTGAAAGAAG
 GTTGACTGTAGCCCTGAGACCATATCTTTAAATGTCAAAGGCCCTGGGCTGCAGAGGATGGTGTGGT
 GGACTTGCCTGGTGTATCAACACTGTGACATCAGGCATGGCTCCCGACACAAAGGAAACTATTTTCAGT
 ATCAGCAAAGCTTACATGCAAGATCCTAACCCATCATCTGTGCATTCAAGATGGATCTGTAGATGCCG
 AGCGCAGTATTGTTACAGACTTGGTCAGTCAAATGGATCCGCATGGAAGAAGAACCATATTTGTTTTGAC
 CAAAGTAGACCTGGCAGAAAAAATGTAGCCAGTCCAAGCAGAATACAACAGATAATTGAAGGCAAGCTC
 TTCCCAATGAAAGCTCTGGGTTATTTGCTGTCGTAACAGGAAAAGGAAACAGCTCTGAAAGCATTGAAG
 CTATAAGAGAATATGAAGAGGAATTTTTCAGAATTCAAAAGTCTAAAGACAAGCATGCTAAAGGCACA
 CCAGGTGACCACGAGAAATCTAAGCCTTCCCGTGTGACTGCTTTTGGAAAATGGTTCGAGAGTCGGTT
 GAACAACAGGCTGATAGTTTTAAAGCAGCTCGCTTCAACCTGGAGACAGAGTGGAAGAACAACCTACCCC
 GCCTGCGGAGCTCGACAGGAATGAACTATTTGAAAAGGCTAAAAATGAGATCCTCGATGAAGTCATCAG
 TCTGAGCCAGGTTACTCAAAGCACTGGGAGGAGATCCTTCAGCAGTCCCTGTGGGAACGAGTGTCAACG
 CATGTGATCGAGAACATCTACCTCCCAGCTGCCAGACCATGAACTCAGGAACATTCAACACCACAGTGG
 ACATCAAGCTTAAACAGTGGACTGACAAGCAGCTTCTAATAAAGCAGTCGAGGTTGCTTGGGAGACCTT
 ACAAGACGAATTTTCCGCTTATGACAGAACC AAAAGGAAAGGAAACACGATGACATATTTGACAAACTT
 AAGGAGGCTGTGAAGGAGGAGATCAAGCGGCACAAATGGAACGACTTCGAGAAGACAGCTTGAGGG
 TCATCCAGCACAACGCTCTGGAGGACCGGTCATATCAGATAAGCAACAGTGGGACGACGATCTACTT
 CATGGAAGAGGCACTTCAAGGTCGTCTCAAGGATCTGAAAATGCTATTGAAAACATGATCGGGCCAGAC
 TGGAAAAAGAGGTGGATATACTGGAAGAATCGGACCCAAAGAGCAGTGTGTTTCAATGAAACCAAGAATG
 AATTGAAAAGATGCTGAAGTTAATGATGAACCCAGCTTATCTTGAAGTGTGAGATTACCACAGT
 CCGGAAGAACCTGGAATCTCGAGGAGTCGAAGTCGATCCAAGCCTGATTAAGGATACTTGGCATCAAGTC
 TATAGAAGACATTTCTAAAAACAGCTCTAAATCACTGTAACTTTGTGCGGAGAGTTTTTATTACTACC
 AGAGGCATTTTATAGACTCTGAGCTGGAGTGCAACGACGTGGTCTGTTCTGGCGAATACAGCGCATGCT
 CGCTACTGCAACACGCTGAGGACGAGCTGACAAACACCGAAGTTAGGCGGCTAGAGAAAAACGTT
 AAAGAGGTATTAGAAGATTTTGTGAAGACGGCGAGAAGAAGTTAAATTGCTTACTGGCAAACGAGTTC
 AGCTGGCAGAAGATCTCAAGAAAGTTAGAGAAATCAAGAAAACTTGATGCTTTCATTGAAGCTCTTCA
 CCAGGAGAAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-Mlul
ACCN:	NM_133585
Insert Size:	2883 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).
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_133585.3 , NP_598269.3
RefSeq Size:	3200 bp
RefSeq ORF:	2883 bp
Locus ID:	171116
UniProt ID:	Q2TA68
Cytogenetics:	11q22
Gene Summary:	Dynamin-related GTPase that is essential for normal mitochondrial morphology by regulating the equilibrium between mitochondrial fusion and mitochondrial fission (PubMed:16778770). Coexpression of isoform 1 with shorter alternative products is required for optimal activity in promoting mitochondrial fusion. 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 (By similarity). 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 (By similarity). Plays a role in mitochondrial genome maintenance (By similarity).[UniProtKB/Swiss-Prot Function]