

Product datasheet for RC211460

OPA1 (NM_130834) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OPA1 (NM_130834) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OPA1
Synonyms:	BERHS; largeG; MGM1; MTDPS14; NPG; NTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211460 representing NM_130834 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCGACTACGTCGGGCCGCTGTGGCCTGTGAGGTCTGCCAGTCTTTAGTGAACACAGCTCTGGAA
TAAAAGGAAGTTTACCACTACAAAACTACATCTGGTTTCACGAAGCATTATCATTACATCATCTAC
CTTAAAGCTTCAACGACCCCAATTAAGGACATCCTTTCAGCAGTTCTCTCTCTGACAAACCTTCCCTTA
CGTAAACTGAAATCTCTCCAATTAATATGGCTACCAGCCTCGCAGGAATTTTGGCCAGCAAGATTAG
CTACGAGACTCTTAAACTTCGCTATCTCATACTAGGATCGGCTGTTGGGGTGGCTACACAGCCAAAA
GACTTTTGATCAGTGGAAAGATATGATACCGACCTTAGTGAATATAAATGGATTGTGCCTGACATTGTG
TGGGAAATGATGAGTATATCGATTTTGGAAAATAGAAAAGCCCTTCCAGTTCAGAAGACCTTGTA
AGTTAGCACCAGACTTTGACAAGATTGTTGAAAGCCTTAGCTTATTGAAGGACTTTTTACCTCAGGTCA
CAAATTGGTTAGTGAAGTCATAGGAGCTTCTGACCTACTTCTCTGTTAGGTTCTCCGGAAGAAACGGCG
TTTAGAGCAACAGATCGTGGATCTGAAAGTGACAAGCATTTTAGAAAGGTGTCAGACAAAGAGAAAATTG
ACCAACTTCAGGAAGAATTCTGCACACTCAGTTGAAGTATCAGAGAATCTTGAACGATTAGAAAAGGA
GAACAAAGAATTGAGAAAATTAGTATTGCAGAAAGATGACAAAGGCATTCATCATAGAAAGCTTAAGAAA
TCTTTGATTGACATGTATTCTGAAGTCTTGTGTTCTCTCTGATTATGATGCCAGTTATAATACGCAAG
ATCATCTGCCACGGTGTGTGGTTGGAGATCAGAGTCTGAAAAGACTAGTGTGTTGAAATGATTGC
CCAAGCTCGAATATTCCAAGAGGATCTGGGGAGATGATGACACGTTCTCCAGTTAAGGTGACTCTGAGT
GAAGGTCTCACCATGTGGCCCTATTTAAAGATAGTTCTCGGGAGTTTGATCTTACCAAAGAAGAAGATC
TTGCAGCATTAAAGACATGAAATAGAAGTTCGAATGAGGAAAAATGTGAAAGAAGGCTGTACCGTTAGCCC
TGAGACCATATCCTTAAATGTAAGGCCCTGGACTACAGAGGATGGTGTCTGTTGACTTACCAGGTGTG
ATTAATACTGTGACATCAGGCATGGCTCCTGACACAAAGGAAACTATTTTCAGTATCAGCAAAGCTTACA
TGCAGAATCCTAATGCCATCATACTGTGATTCAAGATGGATCTGTGGATGCTGAACGCAGTATTGTTAC
AGACTTGGTCAGTCAAATGGACCCTCATGGAAGGAGAACCATATTCGTTTTGACCAAAGTAGACCTGGCA



[View online »](#)

GAGAAAAATGTAGCCAGTCCAAGCAGGATTCAGCAGATAATTGAAGGAAAGCTCTTCCCAATGAAAGCTTAGGTTATTTTGTGCTGTTGTAAACAGGAAAAGGGAACAGCTCTGAAAGCATTGAAGCTATAAGAGAATATGAAGAGTTTTTTTTCAGAAATCAAGCTCCTAAAGACAAGCATGCTAAAGGCACACCAAGTGACTACAAGAATTTAAGCCTTGCAGTATCAGACTGCTTTTGGAAAAATGGTACGAGAGTCTGTTGAACAACAGGCTGATGTTTCAAAGCAACACGTTTTAACCTTAAAAGCTAAAATGAAATCCTTGTGAAGTTATCAGTCTGAGCCAGGTTACACCGAATGAACTATTTGAAAAAGCTAAAATGAAATCCTTGTGAAGTTATCAGTCTGAGCCAGGTTACACCAAACATTGGGAGGAAATCCTTCAACAATCCTTGTGGGAAAGAGTATCAACTCATGTGATTGAAAAACTTACCTTCCAGCTGCGCAGACCATGAATTCAGGAACTTTTAAACCACAGTGGATATCAAGCTTAAACAGTGGACTGATAAAACAACCTTCTAATAAAGCAGTAGAGGTTGCTTGGGAGACCCTACAAGAAGATTTTCCCGCTTTATGACAGAACCAGGAAAGGAAAGAGCATGATGACATATTTGATAAACTTAAAGAGGCTGTTAAGGAAGAAAGTATTAACGACACAAGTGAATGACTTTGCGGAGGACAGCTTGAGGGTTATTCAACACAATGCTTTGGAAGACCGATCCATATCTGATAAACAGCAATGGGATGCAGTATTTATTTTATGGAAGAGGCTCTGCAGGCTCGTCTCAAGGATACTGAAAATGCAATTGAAAACATGGTGGTCCAGACTGGAAAAAGAGGTGGTATACTGGAAGAATCGGACCCAAGAACAGTGTGTTCACAATGAAACCAAGAATGAATTGGAGAAGATGTTGAAATGTAATGAGGAGCACCCAGCTTATCTTGCAAGTGTGAAATAACCACAGTCCGGAAGAACCTTGAAATCCCGAGGAGTAGAAGTAGATCCAAGCTTGATTAAAGGATACTGGCATCAAGTTTATAGAAGACATTTTTAAAAACAGCTCTAAACCATTGTAACCTTTGTCGAAGAGGTTTTTATTACTACCAAAGGCATTTTGTAGATTCTGAGTTGGAATGCAATGATGTGGTCTGTTTTGGCGTATACAGCGCATGCTTGTATCACCGCAAACTTTAAGGCAACAACCTTACAAATACTGAAGTTAGGCGATTAGAGAAAAATGTTAAAGAGGTATTGGAAGATTTTGTGAAGATGGTGAAGAAGATTAATTTGCTTACTGGTAAACCGGTTCAACTGGCGGAAGACCTCAAGAAGTTAGAGAAATTAAGAAAAACTTGATGCTTTCATTGAAGCTTTCATCAGGAGAAAAGCGGACCG

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211460 representing NM_130834
 Red=Cloning site Green=Tags(s)

MWRLRRAAVACEVCQSLVKHSSGIKGSPLQKLHLVSRSIYHSHHPTLKLQRPQLRTSFQQFSSLTNLPL RKLKFSPIKYGYQPRRFWPARLATRLLKLRYLILGSAVGGGYTAKKTFDQWKDMIPDLSEYKWIVPDIV WEIDEYIDFEKIRKALPSSDLVKLAPDFDKIVESSLKLDFFTSGHKLVSEVIGASDLLLLGSP EETA FRATDRGSESDKHFRKVSDEKEIDQLQEELLHTQLKYQRILERLEKENKELRKLVLQKDDKGIHHRKLLK SLIDMYSEVLDVLSYDASYNTQDHLPRVVVVGDSAGKTSVLEMI AQARIFPRGSGEMMTRSPVKVTLSEGP HHVALFKDSSREFDLTKEEDLAALRHEIELRMRKNVKEGCTVSPETISLNVKGPGLQRMVLDLPGV INTVTSGMAPDTKETIFSIKAYMQNPNAIILCIQDGSVDAERSIVTDLVSQMDPHGRRTIFVLTKVDLA EKNVASPSRIQQIIEGKLFPMKALGYFAVVTGKGNSSSEIEAIREYEEFFQNSKLLKTSMLKAHQVTR NLSLAVSDCFWKMVRESVEQQADSFKATRFNLETEWKNNYPRLRELD RNELFEKAKNEILDEVISLSQVTPKHWEELQQSLWERVSTHVIENIYLPAAQTMNSGTFNTTVDIKLKQWTDKQLPNKAVEVAWETLQEEFS RFMTEPKGKEHDDIFDKLKEAVKEESIKRHKWNDFAEDSL RVIQHNALEDRSISDKQQWDAAIYFMEEAL QARLKDTENAIENMVGPDWKKRWLYWKNRTQEVCVHNETKNELEKMLKCN EHPAYLASDEITTVRKNLESRGVEVDP SLIKDTWHQVYRRHFLKTALNHCNLCRRGFY YQRHFV DSELECNDVVLFWRIQRMLAITAN TLRQQLTNTEVRRLEKNVKEVLEDFAE DGEKKIKLLTGKRVQLAEDLKKVREIQEKLD AFIEALHQEKSGP

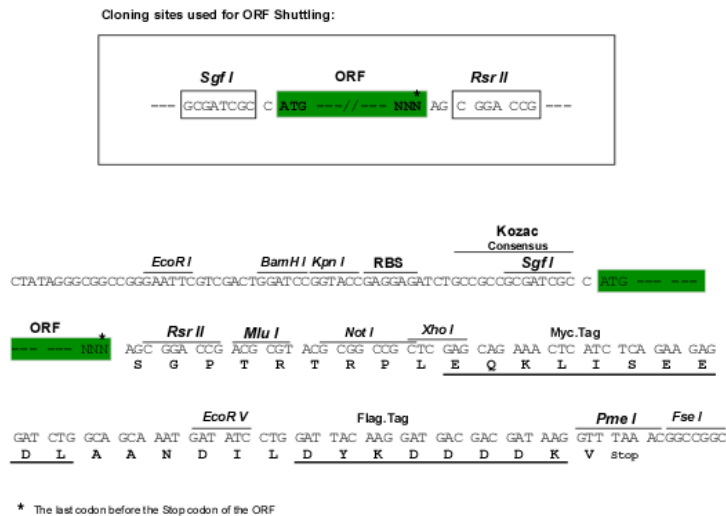
SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6625_d03.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_130834

ORF Size: 744 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_130834.3](#)

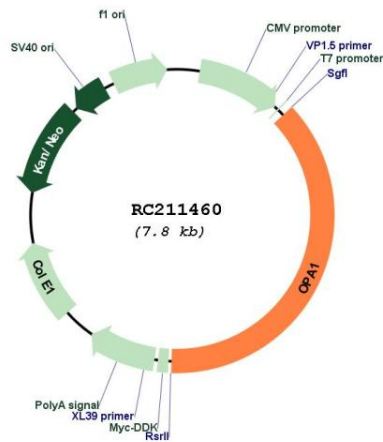
RefSeq Size: 5918 bp

RefSeq ORF: 2937 bp

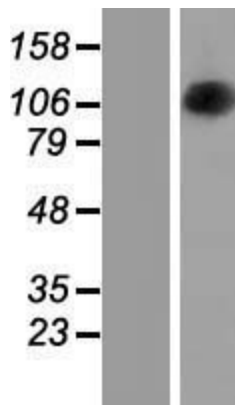
Locus ID: 4976
UniProt ID: [O60313](#)
Cytogenetics: 3q29
MW: 113.3 kDa

Gene Summary: The protein encoded by this gene is a nuclear-encoded mitochondrial protein with similarity to dynamin-related GTPases. The encoded protein localizes to the inner mitochondrial membrane and helps regulate mitochondrial stability and energy output. This protein also sequesters cytochrome c. Mutations in this gene have been associated with optic atrophy type 1, which is a dominantly inherited optic neuropathy resulting in progressive loss of visual acuity, leading in many cases to legal blindness. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RC211460



Western blot validation of overexpression lysate (Cat# [LY408909]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211460 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).