

Product datasheet for SC315052

OPA1 (NM_130836) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: OPA1 (NM_130836) Human Untagged Clone
Tag: Tag Free
Symbol: OPA1
Synonyms: BERHS; largeG; MGM1; MTDPS14; NPG; NTG
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_130836 edited
 CCTGCGTGACCTCCCCGCCGGGATGTGGCGACTACGTCGGGCCGCTGTGGCCTGTGA
 GGTCTGCCAGTCTTTAGTGAAACACAGCTCTGGAATAAAAGGAAGTTTACCACTACAAA
 ACTACATCTGGTTTCACGAAGCATTATCATTACATCATCCTACCTTAAAGCTTCAACG
 ACCCCAATTAAGGACATCCTTTACGAGTTCTCTTCTCTGACAAAACCTTCTTTACGTAA
 ACTGAAATTTCTCCAATTAATATGGCTACCAGCCTCGCAGGAATTTTGGCCAGCAAG
 ATTAGCTACGAGACTCTTAAACTTCGCTATCTCATACTAGGATCGGCTGTTGGGGTGG
 CTACACAGCCAAAAGACTTTTGATCAGTGAAAGATATGATACCGGACCTTAGTGAATA
 TAAATGGATTGTGCTGACATTGTGGGAAATTGATGAGTATATCGATTTTGAGAAAAT
 TAGAAAAGCCCTTCTAGTTTCAAGACCTTGTAAAGTTAGCACCAGACTTTGACAAGAT
 TGTTGAAAGCCTTAGCTTATTGAAGACTTTTTACCTCAGGTTCTCCGGAAGAAACGGC
 GTTAGAGCAACAGATCGTGGATCTGAAAGTGACAAGCATTTTAGAAAGGGTCTGCTTGG
 TGAGCTCATTCTTTACAACAACAAATTCAAGAGCATGAAGAGGAAGCGCGCAGAGCCGC
 TGGCCAATATAGCACGAGCTATGCCCAACAGAAGCGCAAGGTGTGAGACAAGAGAAAAAT
 TGACCAACTTCAGGAAGAACTTCTGCACACTCAGTTGAAGTATCAGAGAACTTTGGAACG
 ATTAGAAAAGGAGAACAAAGAATTGAGAAAAATTAGTATTGCAGAAAAGTACAAAAGGCAT
 TCATCATAGAAAGCTTAAGAAATCTTTGATTGACATGTATTCTGAAGTTCTTGATGTTCT
 CTCTGATTATGATGCCAGTTATAATACGCAAGATCATCTGCCACGGGTTGTTGTGGTTGG
 AGATCAGAGTGTGAAAGACTAGTGTGTTGAAATGATTGCCCAAGCTCGAATATTTCCC
 AAGAGGATCTGGGAGATGATGACACGTTCTCCAGTTAAGGTGACTCTGAGTGAAGGTCC
 TCACCATGTGGCCCTATTTAAAGATAGTTCTCGGGAGTTTGATCTTACCAAGAAGAAGA
 TCTTGACGATTAAGACATGAAATAGAACTTCGAATGAGGAAAAATGTGAAAGAAGGCTG
 TACCGTTAGCCCTGAGACCATATCCTTAAATGTAAAAGGCCCTGGACTACAGAGGATGGT
 GCTTGTGACTTACCAGGTGTGATTAATACTGTGACATCAGGCATGGCTCCTGACACAAA
 GGAAGTATTTTCAAGTATCAGCAAAGCTTACATGCAGAATCCTAATGCCATCATACTGTG
 TATTCAAGATGGATCTGTGGATGCTGAACGCAGTATTGTTACAGACTTGGTCAGTCAAT
 GGACCCTCATGGAAGGAGAACCATATTCGTTTTGACCAAGTAGACCTGGCAGAGAAAAA



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TGTAGCCAGTCCAAGCAGGATTCAGCAGATAATTGAAGGAAAGCTCTTCCAATGAAAGC
 TTTAGGTTATTTTGTGTTGTAACAGGAAAAGGGAACAGCTCTGAAAGCATTGAAGCTAT
 AAGAGAATATGAAGAAGAGTTTTTTCAGAATTCAAAGCTCCTAAAGACAAGCATGCTAAA
 GGCACACCAAGTGACTACAAGAAATTTAAGCCTTGCAAGTATCAGACTGCTTTTGGAAAAT
 GGTACGAGAGTCTGTTGAACAACAGGCTGATAGTTTCAAAGCAACACGTTTTAACCTTGA
 AACTGAATGGAAGAATAACTATCCTCGCCTGCGGGAACCTTGACCCGAATGAACTATTTGA
 AAAAGTAAAAATGAAATCCTTGATGAAGTTATCAGTCTGAGCCAGGTTACACCAAAAACA
 TTGGGAGGAAATCCTTCAACAATCTTTGTGGGAAAGAGTATCAACTCATGTGATTGAAAA
 CATCTACCTTCCAGCTGCGCAGACCATGAATTCAGGAACCTTTAACACCCAGTGGATAT
 CAAGCTTAAACAGTGGACTGATAAAACAACCTTCTAATAAAGCAGTAGAGGTTGCTTGGGA
 GACCTACAAGAAGAATTTCCCGCTTTATGACAGAACCAGAAAGGAAAGAGCATGATGA
 CATATTTGATAAACTTAAAGAGGCTGTTAAGGAAGAAAGTATTAACGACACAAGTGAA
 TGACTTTGCGGAGGACAGCTTGAGGTTATTCAACACAATGCTTTGGAAGACCGATCCAT
 ATCTGATAAACAGCAATGGGATGCAGCTATTTATTTTATGGAAGAGGCTCTGCAGGCTCG
 TCTCAAGGATACTGAAAATGCAATTGAAAACATGGTGGTCCAGACTGGAAAAAGAGGTG
 GTTATACTGGAAGAATCGGACCCAAGAACAGTGTGTTCAATGAAACCAAGAATGAATT
 GGAGAAGATGTTGAAATGTAATGAGGAGCACCCAGCTTATCTTGAAGTATGAAATAAC
 CACAGTCCGGAAGAACCTTGAATCCCGAGGAGTAGAAGTAGATCCAAGCTTGATTAAGGA
 TACTTGGCATCAAGTTTATAGAAGACATTTTTTAAAAACAGCTCTAAACCATTGTAACCT
 TTGTGCAAGAGGTTTTTATTACTACCAAGGCATTTTGTAGATTCTGAGTTGGAATGCAA
 TGATGTGGTCTTGTTTGGCGTATACAGCGCATGCTTGTATCACCGCAAATACTTTAAG
 GCAACAACCTACAATACTGAAGTTAGGCGATTAGAGAAAAATGTTAAAGAGGATTGGA
 AGATTTTGTGCTGAAGTGGTGAGAAGAAGATTAATTGCTTACTGGTAAACGCGTTCAACT
 GGCGGAAGACCTCAAGAAAGTTAGAGAAATTCAGAAAAAAGTATGCTTTTATTGAAGC
 TCTTCATCAGGAGAAATAAATTAATCGTACTATAATCAGCTCTGCATACATCTGAAG
 AACAAAAACATCAACGTCTTTTGTCCAGCCTCTTTTCTTCTGCTGTTCCACCTTTCTAA
 ACATACAATAAAGTCATGGGATAAAAAATAAAAAAAAAAAAAAAAAAAAACTCGA

- Restriction Sites:** Please inquire
- ACCN:** NM_130836
- Insert Size:** 3200 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:** The ORF of this clone has been fully sequenced and found to match to NM_130836.1. There is a couple of SNPs in the ORF.
- 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_130836.1](#), [NP_570849.1](#)

RefSeq Size: 5975 bp

RefSeq ORF: 2994 bp

Locus ID: 4976

UniProt ID: [O60313](#)

Cytogenetics: 3q29

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]
Transcript Variant: This variant (7) contains an additional exon 5b, compared to transcript variant 1. It however, maintains the same reading frame and encodes an isoform (7) of 997 aa. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.