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Product datasheet for SC120543

OPA1 (NM_130837) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OPA1 (NM_130837) Human Untagged Clone
Tag:	Tag Free
Symbol:	OPA1
Synonyms:	BERHS; largeG; MGM1; MTDPS14; NPG; NTG
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_130837, the custom clone sequence may differ by one or more nucleotides

ATGTGGCGACTACGTCGGGCCGCTGTGGCCTGTGAGGTCTGCCAGTCTTTAGTGAAACACAGCTCTGGAA
TAAAAGGAAGTTTACCACTACAAAAACTACATCTGGTTTCACGAAGCATTTATCATTCACATCATCCTAC
CTTAAAGCTTCAACGACCCCAATTAAGGACATCCTTTCAGCAGTTCTCTTCTCTGACAAACCTTCCTTTA
CGTAAACTGAAATTCTCTCCAATTAAATATGGCTACCAGCCTCGCAGGAATTTTTGGCCAGCAAGATTAG
CTACGAGACTCTTAAAACTTCGCTATCTCATACTAGGATCGGCTGTTGGGGGTGGCTACACAGCCAAAAA
GACTTTTGATCAGTGGAAAGATATGATACCGGACCTTAGTGAATATAAATGGATTGTGCCTGACATTGTG
TGGGAAATTGATGAGTATATCGATTTTGAGAAAATTAGAAAAGCCCTTCCTAGTTCAGAAGACCTTGTAA
AGTTAGCACCAGACTTTGACAAGATTGTTGAAAGCCTTAGCTTATTGAAGGACTTTTTTACCTCAGGTCA
CAAATTGGTTAGTGAAGTCATAGGAGCTTCTGACCTACTTCTCTTGTTAGGTTCTCCGGAAGAAACGGCG
TTTAGAGCAACAGATCGTGGATCTGAAAGTGACAAGCATTTTAGAAAGGGTCTGCTTGGTGAGCTCATTC
TCTTACAACAACAAATTCAAGAGCATGAAGAGGAAGCGCGCAGAGCCGCTGGCCAATATAGCACGAGCTA
TGCCCAACAGAAGCGCAAGGTGTCAGACAAAGAGAAAATTGACCAACTTCAGGAAGAACTTCTGCACACT
CAGTTGAAGTATCAGAGAATCTTGGAACGATTAGAAAAGGAGAACAAAGAATTGAGAAAATTAGTATTGC
AGAAAGATGACAAAGGCATTCATCATAGAAAGCTTAAGAAATCTTTGATTGACATGTATTCTGAAGTTCT
TGATGTTCTCTCTGATTATGATGCCAGTTATAATACGCAAGATCATCTGCCACGGGTTGTTGTGGTTGGA
GATCAGAGTGCTGGAAAGACTAGTGTGTTGGAAATGATTGCCCAAGCTCGAATATTCCCAAGAGGATCTG
GGGAGATGATGACACGTTCTCCAGTTAAGGTGACTCTGAGTGAAGGTCCTCACCATGTGGCCCTATTTAA
AGATAGTTCTCGGGAGTTTGATCTTACCAAAGAAGAAGATCTTGCAGCATTAAGACATGAAATAGAACTT
CGAATGAGGAAAAATGTGAAAGAAGGCTGTACCGTTAGCCCTGAGACCATATCCTTAAATGTAAAAGGCC
CTGGACTACAGAGGATGGTGCTTGTTGACTTACCAGGTGTGATTAATACTGTGACATCAGGCATGGCTCC
TGACACAAAGGAAACTATTTTCAGTATCAGCAAAGCTTACATGCAGAATCCTAATGCCATCATACTGTGT
ATTCAAGATGGATCTGTGGATGCTGAACGCAGTATTGTTACAGACTTGGTCAGTCAAATGGACCCTCATG
GAAGGAGAACCATATTCGTTTTGACCAAAGTAGACCTGGCAGAGAAAAATGTAGCCAGTCCAAGCAGGAT
TCAGCAGATAATTGAAGGAAAGCTCTTCCCAATGAAAGCTTTAGGTTATTTTGCTGTTGTAACAGGAAAA
GGGAACAGCTCTGAAAGCATTGAAGCTATAAGAGAATATGAAGAAGAGTTTTTTCAGAATTCAAAGCTCC
TAAAGACAAGCATGCTAAAGGCACACCAAGTGACTACAAGAAATTTAAGCCTTGCAGTATCAGACTGCTT
TTGGAAAATGGTACGAGAGTCTGTTGAACAACAGGCTGATAGTTTCAAAGCAACACGTTTTAACCTTGAA
ACTGAATGGAAGAATAACTATCCTCGCCTGCGGGAACTTGACCGGAATGAACTATTTGAAAAAGCTAAAA
ATGAAATCCTTGATGAAGTTATCAGTCTGAGCCAGGTTACACCAAAACATTGGGAGGAAATCCTTCAACA
ATCTTTGTGGGAAAGAGTATCAACTCATGTGATTGAAAACATCTACCTTCCAGCTGCGCAGACCATGAAT
TCAGGAACTTTTAACACCACAGTGGATATCAAGCTTAAACAGTGGACTGATAAACAACTTCCTAATAAAG
CAGTAGAGGTTGCTTGGGAGACCCTACAAGAAGAATTTTCCCGCTTTATGACAGAACCGAAAGGGAAAGA
GCATGATGACATATTTGATAAACTTAAAGAGGCTGTTAAGGAAGAAAGTATTAAACGACACAAGTGGAAT
GACTTTGCGGAGGACAGCTTGAGGGTTATTCAACACAATGCTTTGGAAGACCGATCCATATCTGATAAAC
AGCAATGGGATGCAGCTATTTATTTTATGGAAGAGGCTCTGCAGGCTCGTCTCAAGGATACTGAAAATGC
AATTGAAAACATGGTGGGTCCAGACTGGAAAAAGAGGTGGTTATACTGGAAGAATCGGACCCAAGAACAG
TGTGTTCACAATGAAACCAAGAATGAATTGGAGAAGATGTTGAAATGTAATGAGGAGCACCCAGCTTATC
TTGCAAGTGATGAAATAACCACAGTCCGGAAGAACCTTGAATCCCGAGGAGTAGAAGTAGATCCAAGCTT
GATTAAGGATACTTGGCATCAAGTTTATAGAAGACATTTTTTAAAAACAGCTCTAAACCATTGTAACCTT
TGTCGAAGAGGTTTTTATTACTACCAAAGGCATTTTGTAGATTCTGAGTTGGAATGCAATGATGTGGTCT
TGTTTTGGCGTATACAGCGCATGCTTGCTATCACCGCAAATACTTTAAGGCAACAACTTACAAATACTGA
AGTTAGGCGATTAGAGAAAAATGTTAAAGAGGTATTGGAAGATTTTGCTGAAGATGGTGAGAAGAAGATT
AAATTGCTTACTGGTAAACGCGTTCAACTGGCGGAAGACCTCAAGAAAGTTAGAGAAATTCAAGAAAAAC
TTGATGCTTTCATTGAAGCTCTTCATCAGGAGAAATAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_130837 unedited
GTAACAGACTTAGGATATTTGTATCCGNACTTTACTATNAGGNCGGCACGCGCAATTCGG
CACGAGNAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA
GAGAGAGAGAGAGAGAGAGAGACGCGGCTCTGTGCCCTTGCTGCTGAGGGCCACTTCCTG
GGTCATTCCTGGACCGGGAGCCGGGCTGGGGCTCACACGGGGGCTCCCGCGTGGCCGTCT
CGGCGCCTGCGTGACCTCCCCGCCGGCGGGATGTGGCGACTACGTCGGGCCGCTGTGGCC
TGTGAGGTCTGCCAGTCTTTAGTGAAACACAGCTCTGGAATAAAAGGAAGTTTACCACTA
CAAAAACTACATCTGGTTTCACGAAGCATTTATCATTCACATCATCCTACCTTAAAGCTT
CAACGACCCCAATTAAGGACATCCTTTCAGCAGTTCTCTTCTCTGACAAACCTTCCTTTA
CGTAAACTGAAATTCTCTCCAATTAAATATGGCTACCAGCCTCGCAGGAATTTTTGGCCA
GCAAGATTAGCTACGAGACTCTTAAAACTTCGCTATCTCATACTAGGATCGGCTGTTGGG
GGTGGCTACACAGCCAAAAAGACTTTTGATCAGTGGAAAGATATGATACCGGACCTTAGT
GAATATAAATGGATTGTGCCTGACATTGTGTGGGAAATTGATGAGTATATCGATTTTGAG
AAAATTAGAAAAGCCCTTCCTAATTCAGAAGACCTTGTAAAGTTAGCACCAGACTTTGAC
AAGATTGTTGAAAGCCTTAGCTTATTGAAGGACTTTTTTACCTCAGGTTCTCCGGAAGAA
ACGGCGTTTAGAGCAACAGATCGTGGATTCTGAAGTGANCAGCATTTTAGAAAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_130837 unedited
TAGCTTGNACGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTACTCTTGAGA
CTGAATTTTATTTTCTTTCAATAACATCTGCAGTTGATAAATACCTAGCTTTCAAGGAAA
AATAAAGCATGCTTAGGATGAGATCAGCTAAAAAGAAGAAAAAAAAAACCCATGAAAGAAG
CCACATTACTGTGGGGCATGGAGAGGGCGTCAGGACTCTCATGTGGGACTTTTAGTAATA
TTAATTGTTATCATCTATTCACATACGTTACAATACTGATCTCCTCAAAGAAATGAAGAT
CTCCCTCCATCTCTTTTTAAAACTTATACAAAGGGATGTGATAACAGTAGTGACTAATAT
TAGCCTTTTCCTTGGGAGAAATCTGTGGAAATACAGCTGAAGGTCTTTCTTTCTATAGTT
GACAGAAGTAAATAAATATGGTCCTGTTTTATTCTTTAGAAATAGATGTGTAGTTGTAAT
TGTTATGCTTTACAACTGCAAAAATATTCATTAACATGCATTAACCTGTAAGCACTGGTT
AGAGGGGTGTACCCAGTAAGGTCATCTCCTAATCTGTGTATAGAACATAATAGAGCTCTC
CTCCCTTTCTATTCACTCCTGTCCCTAGACCTAAAAGAAATAAAAAAAGTTCCTGACTAT
GCATCTACCAGCGCATCTGTGCTGCTTAAGGCTGGACCTACTTTTCTTATCAAACAGTAT
AAAACAAACATACACTGAATTCCTGGGTTCGGAAGTATTTTTTCATATCCTCAACCGAGC
ATACCAAGTGTTACATCTTTGAGGGATCACAACGAAGCATGCATTGATGTAAAACAANTA
AATGGGGAGTAGGCATGGGGGCTGTTACCANAAAAGCACTNCCAGAAAATAAGATTTAGC
CAACTGTTAAAATCAAAAACTTCAACATTGACCCTTTTATTACAAAGTAAAGGCTTATTG
AAAAACACCAATTGGTATGAACTTTTAAA

Restriction Sites: NotI-NotI

ACCN: NM_130837

Insert Size: 5270 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:	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_130837.1, NP_570850.1
RefSeq Size:	6510 bp
RefSeq ORF:	6510 bp
Locus ID:	4976
UniProt ID:	O60313
Cytogenetics:	3q29
Domains:	dynamin
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 (8) contains 2 additional exons, 4b and 5b, compared to transcript variant 1. It however, maintains the same reading frame and encodes an isoform (8) of 1015 aa. This variant is based on an alternate splice pattern characterized by Delettre et al (2001, PMID: 11810270), but the complete 5' to 3' exon combination is inferred and not supported at the time of review by a single long cDNA. 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.