

## Product datasheet for **RC217055**

### OPA1 (NM\_130833) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OPA1 (NM_130833) 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)



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**ORF Nucleotide Sequence:**

>RC217055 representing NM\_130833  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGCGACTACGTGGGCCGCTGTGGCCTGTGAGGTCTGCCAGTCTTTAGTGAACACAGCTCTGGAA  
 TAAAAGGAAGTTTACCACTACAAAACTACATCTGGTTTACGAAGCATTATCATTACATCATCCTAC  
 CTTAAAGCTTCAACGACCCCAATTAAGGACATCCTTTCAGCAGTTCTCTCTCTGACAAAACCTTCTTTTA  
 CGTAAACTGAAATTCTCTCCAATTAATATGGCTACCAGCCTCGCAGGAATTTTGGCCAGCAAGATTAG  
 CTACGAGACTCTTAAACTTCGCTATCTCATACTAGGATCGGCTGTTGGGGTGGCTACACAGCCAAAA  
 GACTTTTGATCAGTGGAAAGATATGATACCGACCTTAGTGAATATAAATGGATTGTGCCTGACATTGTG  
 TGGGAAATTGATGAGTATATCGATTTTGGTTCTCCGGAAGAAACGGCGTTTAGAGCAACAGATCGTGGAT  
 CTGAAAGTGACAAGCATTTTAAAAAGGCTGCTTGGTGAGCTCATTCTTTACAACAACAAATTCAGA  
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 TCATAGAAAGCTTAAGAAATCTTTGATTGACATGTATTCTGAAGTCTTGATGTTCTCTCTGATTATGAT  
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 CTCTTCCCAATGAAAGCTTTAGGTTATTTTGTGTTGTAACAGGAAAAGGGAACAGCTCTGAAAGCATTG  
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 ACACCAAGTGACTACAAGAAATTAAGCCTTGCAGTATCAGACTGCTTTTGGAAAATGGTACGAGAGTCT  
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 CAGTCTGAGCCAGGTTACACCAAAACATTTGGGAGGAAATCCTTCAACAATCTTTGTGGGAAAAGATCA  
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 TGGATATCAAGCTTAAACAGTGGACTGATAAACAACCTTCTAATAAAGCAGTAGAGGTTGCTTGGGAGAC  
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 ACCAAAGGCATTTTGTAGATTCTGAGTTGGAATGCAATGATGTGGTCTTGTTTTGGCGTATACAGCGCAT  
 GCTTGCTATACCCGCAAATACTTAAAGGCAACAACCTTACAATACTGAAGTTAGGCGATTAGAGAAAAAT  
 GTTAAAGAGGTATTGGAAGATTTTGTGTAAGATGGTGAAGAAGATTAATGCTTACTGGTAAACGCG  
 TTCAACTGGCGGAAGACCTCAAGAAAGTTAGAGAAATTCAGAAAAACTTGATGCTTTCATTGAAGCTCT  
 TCATCAGGAGAAAAGCGGACCG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217055 representing NM\_130833  
 Red=Cloning site Green=Tags(s)

MWRLRRAAVACEVCQSLVKHSSGIKGSPLQLHLVSRSIYHSHHPTLKLQRPQLRTSFQQFSSLTNLPL  
 RKLKFSPIKYGYQPRNFWPARLATRLLKLRYLILGSVGGGYTAKKTFDQWDMIPDLSEYKWI VPDIV  
 WEIDEYIDFGSPEETAFRATDRGSESDKHFRKGLLGELILLQQIQEHEEEARRAAGQYSTSYAQKQKRV  
 SDKEKIDQLQEELLHTQLKYQRILERLEKENKELRKLVLQKDDKGIHHRKLLKSLIDMYSEVLDVLSYD  
 ASYNTQDHLPRVVVVDQSGAKTSVLEMI AQARIFPRGSGEMMTRSPVKVTLSEGPLHVALFKDSSREFD  
 LTKEDLAALRHEIELMRKNVKEGCTVSPETISLNVKGPGLQRMVLDLPGVINTVTSMPADTKETIF  
 SISKAYMQNPNAIILCIQDGSVDAERSIVTDLVSQMDPHGRRTIFVLTKVDLAEKNVSPSRIQQIIEGK  
 LFPMKALGYFAVVTGKGNSSSEIEAIREYEEFFQNSKLLKTSMLKAHQVTRNLSLAVSDCFWKMVRES  
 VEQQADSFKATRFNLETEWKNNYPRLRELDNLEFEKAKNEILDEVISLSQVTPKHWEELQQLSERVVS  
 THVIENIYLPAAQTMNSGTFNTTVDIKLKQWTDKQLPNKAVEVAVETLQEEFSRFMTEPKGKEHDDIFDK  
 LKEAVKEESIKRHKWNDF AEDSLRVIQHNALEDRSISDKQQWDAAIYFMEEALQARLKDTENAIENMVGP  
 DWKKRWLYWKNRTQEQCVHNETKNELEKMLKNEEHPAYLASDEITTVRKNLESRGVEVDP SLIKDTHWQ  
 VYRRHFLKTALNHCNLCRRGFY YQRHFV DSELECNVDVLFWRIQRLAITANTLRQQLTNTVEVRRLEKN  
 YKEVLEDAEDGEKKIKLLTGKRVQLAEDLKKVREIQEKLDAFIEALHQEKSGP

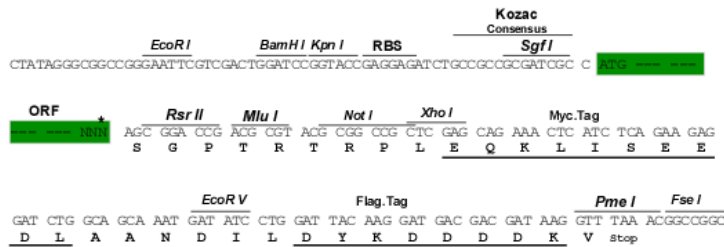
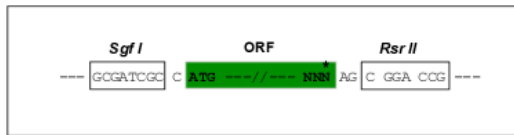
SGPTRRRL**EQKLISEEDLAANDILDYKDDDDKV**

Chromatograms: [https://cdn.origene.com/chromatograms/mk6625\\_c06.zip](https://cdn.origene.com/chromatograms/mk6625_c06.zip)

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



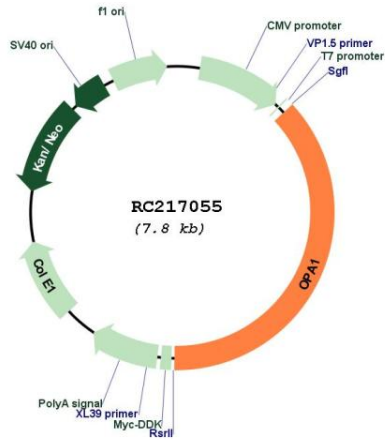
\* The last codon before the Stop codon of the ORF

ACCN: NM\_130833

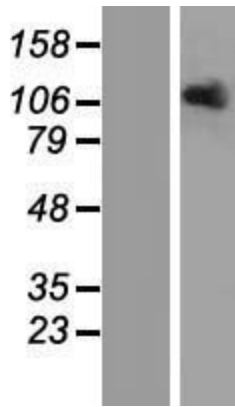
ORF Size: 977 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_130833.3</a>
<b>RefSeq Size:</b>	5867 bp
<b>RefSeq ORF:</b>	2886 bp
<b>Locus ID:</b>	4976
<b>UniProt ID:</b>	<a href="#">O60313</a>
<b>Cytogenetics:</b>	3q29
<b>MW:</b>	111.6 kDa
<b>Gene Summary:</b>	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 RC217055



Western blot validation of overexpression lysate (Cat# [LY408908]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217055 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).