

Product datasheet for **RC202046**

DRP1 (DNM1L) (NM_012063) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DRP1 (DNM1L) (NM_012063) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DRP1
Synonyms:	DLP1; DRP1; DVLP; DYMPLE; EMPF; EMPF1; HDYNIV; OPA5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC202046 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGGCGCTAATTCCTGTCATAAACAAGCTCCAGGACGTCTTCAACACGGTGGCGCCGACATCATCC
 AGCTGCCTCAAATCGTCGTAGTGGGAACGCAGAGCAGCGAAAGAGCTCAGTGCTAGAAAGCCTGGTGGG
 GAGGGACCTGTTCCAGAGGACTGGAATTGTACCCGAGACCTCTCATTCTGCAACTGGTCCATGTT
 TCACAAGAAGATAAACGGAACAACAGGAGAAGAAAATGGGGTGAAGCAGAAGAATGGGGTAAATTTTC
 TTCACACCAAAAAAAGCTTTACACGGATTTTGTGAAATTCGACAAGAAATGAAAATGAAACAGAAAAG
 AATTTTCAGGAAATAATAAGGGAGTAAGCCCTGAACCAATTCATCTTAAGATTTTTTCACCAACGTTGTC
 AATTTGACACTTGTGGATTTGCCAGGAATGACCAAGGTGCCTGTAGGTGATCAACCTAAGGATATTGAGC
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 TAATACAGATATGGCAACATCAGAGGCACTTAAAATTTCAAGAGAGGTAGATCCAGATGGTGCAGAACCC
 CTAGCTGTAATCACTAACTTGATCTCATGGATGCGGGTACTGATGCCATGGATGTATTGATGGGAAGGG
 TTATTCAGTCAAACCTTGAATAATTGGAGTAGTTAACAGGAGCCAGCTAGATATTAACAACAAGAGAG
 TGTAACCTGATTCAATCCGTGATGAGTATGCTTTTCTTCAAAGAAAATATCCATCTCTGGCCAATAGAAA
 GGAACAAGTATCTTGCTAGGACTCTAACAGGTTACTGATGCATCACATCAGAGATTGTTTACCAGAGT
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 AGCACTGTAGCAATTACAGTACACAGGAATTGTTACGATTTCTAACTTCATGATGCCATAGTTGAAGT
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 AACAAAGGAGAAACAGGCTAGCCAGAGAATTACCTTCAGCTGTATCACGAGACAAGTTAATTCAGGACAG
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 ACGAAAATATCTGCTCGGGAACAGCGAGATTGTGAGGTTATTGAACGACTCATTAAATCATATTTTCTC
 ATTTGTCAGAAAAGAATATTCAAGACAGTGTGCCAAGGCAGTAATGCATTTTTTGGTTAATCATGTGAAA
 ACCTTCTCAGAGTGAGCTAGTAGGCCAGCTGTATAAATCATCCTTATTGGATGATCTTCTGACAGAATC
 TGAGGACATGGCACAGCGCAGGAAAGAAGCAGCTGATATGCTAAAGGCATTACAAGGAGCCAGTCAAATT
 ATTGCTGAAATCCGGGAGACTCATCTTTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202046 protein sequence
Red=Cloning site Green=Tags(s)

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MEALIPVINKLQDVFNVTGADIIQLPQIVVVGTSQSSGKSSVLESLVGRDLLPRGTGIVTRRPLILQLVHV
SQEDKRKTTGEENGVEAEWGWKFLHTKNKLYTDFDEIRQEIENETERISGNNKGVSEPIHLKIFSPNVV
NLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRT
LAVITKLDLMDAGTDAMDVLMGRVIPVKLGIIGVVNRSQLDINNKKSVTDSIRDEYAFLLQKYPVSLANRN
GTKYLARTLNRLMHHIRDCLPELKRTRINVLAAQYQSLLSYGEVDDKATLLQLITKFATEYCNTEIEG
TAKYIETSELCEGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEVSFELLVKRQ
IKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVTCLLRKRLPVTNEMVHNLVAIE
LAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSAVSRDKLIQDSRRETKNVASGGGGVGDGVQEPPT
GNWRGMLKTSKAEELLAEEKSKPIPIIMPASPQKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFL
IVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQI
IAEIRETHLW
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6324_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012063

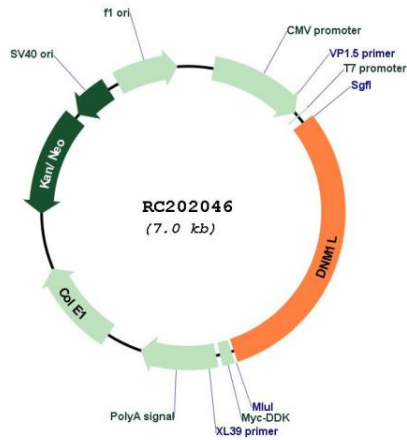
ORF Size: 2130 bp

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](#)

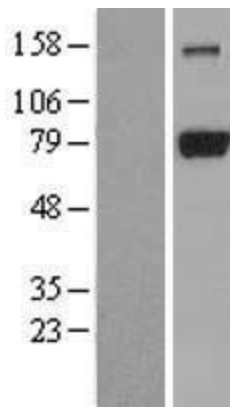
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_012063.3</u>
RefSeq Size:	4537 bp
RefSeq ORF:	2133 bp
Locus ID:	10059
UniProt ID:	<u>O00429</u>
Cytogenetics:	12p11.21
Domains:	dynamamin_2, dynamamin, GED
Protein Pathways:	Endocytosis, Fc gamma R-mediated phagocytosis
MW:	79.4 kDa
Gene Summary:	This gene encodes a member of the dynamamin superfamily of GTPases. The encoded protein mediates mitochondrial and peroxisomal division, and is involved in developmentally regulated apoptosis and programmed necrosis. Dysfunction of this gene is implicated in several neurological disorders, including Alzheimer's disease. Mutations in this gene are associated with the autosomal dominant disorder, encephalopathy, lethal, due to defective mitochondrial and peroxisomal fission (EMPF). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jun 2013]

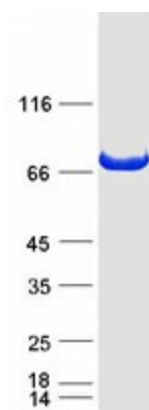
Product images:



Circular map for RC202046



Western blot validation of overexpression lysate (Cat# [LY416000]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202046 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DNM1L protein (Cat# [TP302046]). The protein was produced from HEK293T cells transfected with DNM1L cDNA clone (Cat# RC202046) using MegaTran 2.0 (Cat# [TT210002]).