

## Product datasheet for **RC239423**

### DRP1 (DNM1L) (NM\_001278463) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DRP1 (DNM1L) (NM_001278463) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNM1L
Synonyms:	DLP1; DRP1; DVLP; DYMPLE; EMPF; EMPF1; HDYNIV; OPA5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RC239423 representing NM\_001278463  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGGCGCTAATTCCTGTCATAAACAAGCTCCAGGACGTCTTCAACACGGTGGGCGCCGACATCATCC  
AGCTGCCTCAAATCGTCGTAGTGGGAACGCAGAGCAGCGGAAAGAGCTCAGTGCTAGAAAGCCTGGTGGG  
GAGGGACCTGCTCCAGAGGACTGGAATTGTACCCGAGACCTCTCATTCTGCAACTGGTCCATGTT  
TCACAAGAAGATAAACGAAAAACAACAGGAGAAGAAAAATGGGGTGAAGCAGAAGAATGGGGTAAATTTT  
TTCACACCAAAAAAAGCTTTACACGGATTTTGTGAAATTCGACAAGAAATGAAAATGAAACAGAAAAG  
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AATTTGACACTTGTGGATTTGCCAGGAATGACCAAGGTGCCTGTAGGTGATCAACCTAAGGATATTGAGC  
TTCAAATCAGAGAGCTCATTCTCGGTTTCATCAGTAATCCTAATCCATTATCCTCGCTGCTACTGCTGC  
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CTAGCTGTAATCACTAACTTGATCTCATGGATGCGGGTACTGATGCCATGGATGTATTGATGGGAAGGG  
TTATTCAGTCAAACCTTGAATAATTGGAGTAGTTAACAGGAGCCAGCTAGATATTAACAACAAGAGAG  
TGTAAGTATTCAATCCGTGATGAGTATGCTTTTCTTCAAAGAAATATCCATCTCTGGCCAATAGAAAAT  
GGAACAAAGTATCTTGCTAGGACTCTAACAGGTTACTGATGCATCACATCAGAGATTGTTTACCAGAGT  
TGAAAACAAGAATAAATGTTCTAGCTGCTCAGTATCAGTCTCTTCAAATAGCTACGGTGAACCCGTGGA  
TGATAAAAGTGTACTTTACTCCAATTATTACCAAATTTGCCACAGAATATTGTAACACTATTGAAGGA  
ACTGCAAAATATATTGAACTTCGGAGCTATGCGGTGGTGTAGAATTTGTTATATTTTCCATGAGACTT  
TTGGGCGAACCTTAGAATCTGTTGATCCACTTGGTGGCCTAACACTATTGACATTTTACTGATGATGATG  
AAATGCTACTGGTCCTCGTCCTGCTTTATTTGTGCTGAGGTTTCATTTGAGTTACTGGTGAAGCGGCAA  
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GGTACTGTCTTCTTCTGTAAGGTTGCCTGTTACAAATGAAATGGTCCATAACTTAGTGGCAATTGAA  
CTGGCTTATATCAACACAAAACATCCAGACTTTGCTGATGCTTGTGGGCTAATGAACAATAATATAGAGG  
AACAAAGGAGAAACAGGCTAGCCAGAGAATTACCTTCAGCTGTATCACGAGACAAGTCTTCTAAAGTTCC  
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AAAAGGTGATGCCGTGAACCTGCTAGATGTGCCAGTTCCTGTTGCACGAAAATATCTGCTCGGGAACAG  
CGAGATTGTGAGGTTATTGAACGACTCATAAATCATATTTTCTCATTGTGAGAAAGAATATTCAAGACA  
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CCAGCTGTATAAATCATCCTTATTGGATGATCTTCTGACAGAATCTGAGGACATGGCACAGCGCAGGAAA  
GAAGCAGCTGATATGCTAAAGGCATTACAAGGAGCCAGTCAAATATTGCTGAAATCCGGGAGACTCATC  
TTTGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239423 representing NM\_001278463  
 Red=Cloning site Green=Tags(s)

MEALIPVINKLQDVFNVTGADIIQLPQIVVVGTSQSSGKSSVLESVGRDLLPRGTGIVTRRPLILQLVHV  
 SQEDKRKTTGEENGVEAEWGWKFLHTKNKLYTDFDEIRQEIENETERISGNNKGVSEPIHLKIFSPNVV  
 NLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRT  
 LAVITKLDLMDAGTDAMDVLMGRVIPVKLGIIGVVNRSQLDINNKKSVTDSIRDEYAFLLQKKYPSLANRN  
 GTKYLARTLNRLMHHIRDCLPELKTRINVLAAQYQSLLSYGEVDDKATLLQLITKFATEYCNTEG  
 TAKYIETSELGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEVSFELLVKRQ  
 IKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVTCLLRKRLPVTNEMVHNLVAIE  
 LAYINTKHPDFADACGLMNNNIEEQRNRRLARELPSAVSRDKSSKVPALAPASQEPSPAASAEADGKVA  
 SGGGGVGDGVQEPTTGNWRGMLKTSKAEELLAEKSKPIPIMPASPQKGHAVNLLDVPVPVARKLSAREQ  
 RDCEVIERLIKS YFLIVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRK  
 EAADMLKALQGASQIIAEIRETHLW

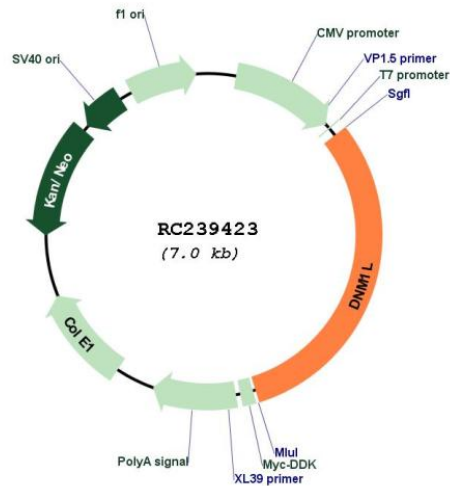
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001278463

**ORF Size:** 2175 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\\_001278463.1](#), [NP\\_001265392.1](#)

**RefSeq Size:** 4582 bp

**RefSeq ORF:** 2178 bp

**Locus ID:** 10059

UniProt ID: [O00429](#)

Cytogenetics: 12p11.21

Protein Pathways: Endocytosis, Fc gamma R-mediated phagocytosis

MW: 81 kDa

**Gene Summary:** This gene encodes a member of the dynamin 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]