

Product datasheet for **RC239452**

DRP1 (DNM1L) (NM_001278465) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DRP1 (DNM1L) (NM_001278465) 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:

>RC239452 representing NM_001278465
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGGCGCTAATTCCTGTCATAAACAAGCTCCAGGACGTCTTCAACACGGTGGGCGCCGACATCATCC
 AGCTGCCTCAAATCGTCGTAGTGGGAACGCAGAGCAGCGAAAGAGCTCAGTGCTAGAAAAGCCTGGTGGG
 GAGGGACCTGTTCCAGAGGTACTGGAATTGTACCCGAGACCTCTCATTCTGCAACTGGTCCATGTT
 TCACAAGAAGATAAACGGAACAACAGGAGAAGAAAATGACCCTGCTACATGGAAAACTCAAGACACC
 TTTCTAAAGGGGTGGAAGCAGAAGAATGGGGTAAATTTCTTACACCAAAAAAAGCTTTACACGGATTT
 TGATGAAATTCGACAAGAAATGAAAATGAAACAGAAAGAATTCAGGAAATAATAAGGGAGTAAGCCCT
 GAACCAATTCATCTTAAGATTTTTTACCCAACGTTGTCAATTTGACACTTGTGGATTTGCCAGGAATGA
 CCAAGGTGCCTGTAGGTGATCAACCTAAGGATATTGAGCTTCAAATCAGAGAGCTCATTCTCGTTTCAT
 CAGTAATCCTAATCCATTATCCTCGTGTCACTGCTGCTAATACAGATATGGCAACATCAGAGGCACTT
 AAAATTTCAAGAGAGGTAGATCCAGATGGTCGCAGAACCCTAGCTGTAATCACTAAACTGATCTCATGG
 ATGCGGGTACTGATGCCATGGATGATTGATGGGAAGGGTTATTCCAGTCAAACCTTGAATAAATGGAGT
 AGTTAACAGGAGCCAGCTAGATATTAACAACAAGAAGAGTGAATGATTCAATCCGTGATGAGTATGCT
 TTTCTTAAAAGAAAATATCCATCTCTGGCCAATAGAAAATGGAACAAAGTATCTTGCTAGGACTCTAAACA
 GGTTACTGATGCATCACATCAGAGATTGTTTACCAGAGTTGAAAACAAGAATAAATGTTCTAGCTGCTCA
 GTATCAGTCTCTTCTAAATAGCTACGGTGAACCCGTGGATGATAAAAAGTCTACTTTACTCCAACCTATT
 ACCAAATTTGCCACAGAATATTGTAACACTATTGAAGGAACTGCAAAAATATATTGAACTTCGGAGCTAT
 CGGTGGTGTGCTAGAATTTGTTATTTTTCCATGAGACTTTTGGGCGAACCTTAGAATCTGTTGATCCACT
 TGGTGGCCTTAACACTATTGACATTTTACTGCCATTAGAAATGCTACTGGTCTCGTCTGCTTTATTT
 GTGCCGTGAGGTTTCAATTTGAGTTACTGGTGAAGCGGCAAATCAAACGTCTAGAAGAGCCAGCCTCCGCT
 GTGTGGAACCTGGTTCATGAGGAAATGCAAAGGATCATTGAGCACTGTAGCAATTACAGTACACAGGAATT
 GTTACGATTTCTAAACTTCATGATGCCATAGTTGAAAGTGGTACTTGTCTTCTCGTAAAAGGTTGCCT
 GTTACAAATGAAATGGTCCATAACTTAGTGCAATTGAACTGGCTTATATCAACACAAAACATCCAGACT
 TTGCTGATGCTTGTGGGCTAATGAACAATAATATAGAGGAACAAAGGAGAAACAGGCTAGCCAGAGAATT
 ACCTTCAGCTGTATCACGAGACAAGTCTTCTAAAGTTCCAAGTGTCTTGGCACCTGCCTCCAGGAGCCC
 TCCCCGCTGCTTCTGCTGAGGCTGATGGCAAGTTGCATCTGGAGGTGGTGGGTTGGAGATGGTGTTC
 AAGAACCAACCACAGGCAACTGGAGAGGAATGCTGAAAACCTCAAAGCTGAAGAGTTATTAGCAGAAGA
 AAAATCAAACCCATTCCAATTATGCCAGCCAGTCCACAAAAAGGTCATGCCGTGAACCTGCTAGATGTG
 CCAGTTCCTGTTGCACGAAAACCTATCTGCTCGGGAACAGCGAGATTGTGAGGTTATTGAACGACTCATT
 AATCATATTTTCTCATTGTGAGAAAGAATATTCAAGACAGTGTGCCAAAGGCAGTAAATGCATTTTTTGGT
 TAATCATGTGAAAGACACTCTTCAGAGTGTGAGTGTAGGCCAGCTGTATAAATCATCCTTATTGGATGAT
 CTTCTGACAGAATCTGAGGACATGGCACAGCGCAGGAAAGAAGCAGCTGATATGCTAAAGGCATTACAAG
 GAGCCAGTCAAATATTGCTGAAATCCGGGAGACTCATCTTTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239452 representing NM_001278465
 Red=Cloning site Green=Tags(s)

MEALIPVINKLQDVFNVTGADIIQLPQIVVVGTQSSGKSSVLESLVGRDLLPRGTGIVTRRPLILQLVHV
 SQEDKRKTTGEENDPATWKNRHL SKGVEAEWGWKFLHTKNKLYTDFDEIRQEIENETERISGNKGVSP
 EPIHLKIFSPNVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEAL
 KISREVDPDGRRTLAVITKLDLMDAGTDAMDVLMGRVIPVKLGIIGVVNRSQLDINNKS SVTDSIRDEYA
 FLQKKYPSLANRNGTKYLARTLNRLMHHIRDCLPELKTRINVLAAYQSLLSYGEVDDKSATLLQLI
 TKFATEYCNTIEGTAKYIETSEL CGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALF
 VPEVSFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVTCLLRKRLP
 VTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSAVSRDKSSKVPALAPASQEP
 SPAASAEADGKVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASPQKGHAVNLLDV
 PVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLLDD
 LLTESEDMAQRKKEADMLKALQGASQIIAEIRETHLW

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

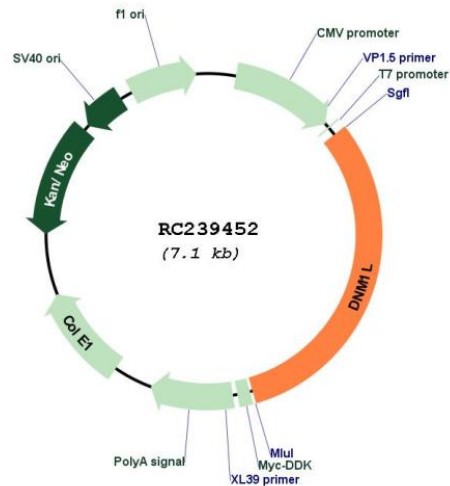
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001278465

ORF Size: 2214 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_001278465.1](#), [NP_001265394.1](#)

RefSeq Size: 4621 bp

RefSeq ORF: 2217 bp

Locus ID: 10059

UniProt ID: [O00429](#)

Cytogenetics: 12p11.21

Protein Pathways: Endocytosis, Fc gamma R-mediated phagocytosis

MW: 82.5 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]