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Product datasheet for RG221708

DRP1 (DNM1L) (NM_012062) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DRP1 (DNM1L) (NM_012062) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DRP1
Synonyms:	DLP1; DRP1; DVLP; DYMPLE; EMPF; EMPF1; HDYNIV; OPA5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG221708 representing NM_012062
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGCGCTAATTCCTGTCATAAACAAGCTCCAGGACGTCTTCAACACGGTGGGCGCCGACATCATCC
AGCTGCCTCAAATCGTCGTAGTGGGAACGCAGAGCAGCGGAAAGAGCTCAGTGCTAGAAAGCCTGGTGGG
GAGGGACCTGCTTCCCAGAGGTACTGGAATTGTCACCCGGAGACCTCTCATTCTGCAACTGGTCCATGTT
TCACAAGAAGATAAACGGAAAACAACAGGAGAAGAAAATGGGGTGGAAGCAGAAGAATGGGGTAAATTTC
TTCACACCAAAAATAAGCTTTACACGGATTTTGATGAAATTCGACAAGAAATTGAAAATGAAACAGAAAG
AATTTCAGGAAATAATAAGGGAGTAAGCCCTGAACCAATTCATCTTAAGATTTTTTCACCCAACGTTGTC
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CTAGCTGTAATCACTAAACTTGATCTCATGGATGCGGGTACTGATGCCATGGATGTATTGATGGGAAGGG
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TGTAACTGATTCAATCCGTGATGAGTATGCTTTTCTTCAAAAGAAATATCCATCTCTGGCCAATAGAAAT
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TGATAAAAGTGCTACTTTACTCCAACTTATTACCAAATTTGCCACAGAATATTGTAACACTATTGAAGGA
ACTGCAAAATATATTGAAACTTCGGAGCTATGCGGTGGTGCTAGAATTTGTTATATTTTCCATGAGACTT
TTGGGCGAACCTTAGAATCTGTTGATCCACTTGGTGGCCTTAACACTATTGACATTTTGACTGCCATTAG
AAATGCTACTGGTCCTCGTCCTGCTTTATTTGTGCCTGAGGTTTCATTTGAGTTACTGGTGAAGCGGCAA
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CCTGTTGCACGAAAACTATCTGCTCGGGAACAGCGAGATTGTGAGGTTATTGAACGACTCATTAAATCAT
ATTTTCTCATTGTCAGAAAGAATATTCAAGACAGTGTGCCAAAGGCAGTAATGCATTTTTTGGTTAATCA
TGTGAAAGACACTCTTCAGAGTGAGCTAGTAGGCCAGCTGTATAAATCATCCTTATTGGATGATCTTCTG
ACAGAATCTGAGGACATGGCACAGCGCAGGAAAGAAGCAGCTGATATGCTAAAGGCATTACAAGGAGCCA
GTCAAATTATTGCTGAAATCCGGGAGACTCATCTTTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG221708 representing NM_012062
Red=Cloning site Green=Tags(s)

MEALIPVINKLQDVFNTVGADIIQLPQIVVVGTQSSGKSSVLESLVGRDLLPRGTGIVTRRPLILQLVHV
SQEDKRKTTGEENGVEAEEWGKFLHTKNKLYTDFDEIRQEIENETERISGNNKGVSPEPIHLKIFSPNVV
NLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRT
LAVITKLDLMDAGTDAMDVLMGRVIPVKLGIIGVVNRSQLDINNKKSVTDSIRDEYAFLQKKYPSLANRN
GTKYLARTLNRLLMHHIRDCLPELKTRINVLAAQYQSLLNSYGEPVDDKSATLLQLITKFATEYCNTIEG
TAKYIETSELCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEVSFELLVKRQ
IKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVTCLLRKRLPVTNEMVHNLVAIE
LAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSAVSRDKSSKVPSALAPASQEPSPAASAEADGKLI
QDSRRETKNVASGGGGVGDGVQEPTTGNWRGMLKTSKAEELLAEEKSKPIPIMPASPQKGHAVNLLDVPV
PVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLLDDLL
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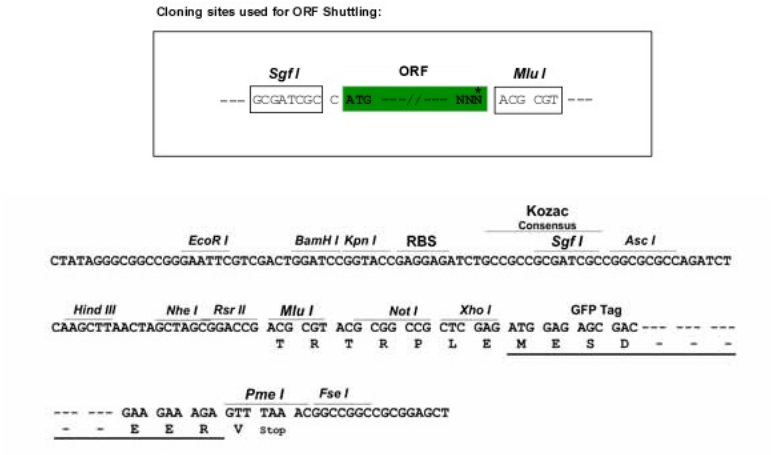
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012062

ORF Size: 2208 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_012062.5

RefSeq Size: 3293 bp

RefSeq ORF: 2211 bp

Locus ID: 10059

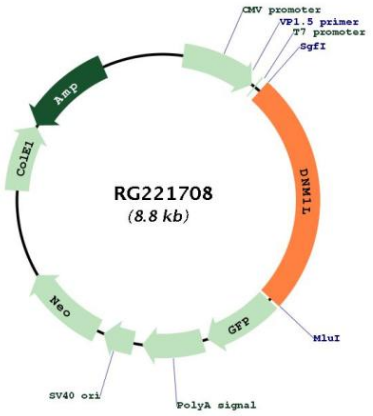
UniProt ID: O00429

Cytogenetics: 12p11.21

Protein Pathways: Endocytosis, Fc gamma R-mediated phagocytosis

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]

Product images:



Circular map for RG221708