

## Product datasheet for **RC218819**

### **Dynamin 1 (DNM1) (NM\_004408) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dynamin 1 (DNM1) (NM_004408) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dynamin 1
Synonyms:	DEE31; DNM; EIEE31
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC218819 representing NM\_004408  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCAACCGCGCATGGAAGATCTCATCCCGCTGGTCAACCGGCTGCAAGACGCCTTCTCTGCCATCG  
 GCCAGAACCGCGACCTCGACCTGCCGCAGATCGCTGTGGTGGCGGCCAGAGCGCCGCAAGAGCTCGGT  
 GCTCGAGAATTTCTAGGCAGGGACTTCTTGCCTCGAGGATCTGGCATTGTCACCCGACGTCCTCCCTGGTC  
 TTGCAGCTGGTCAATGCAACCACAGAATATGCCGAGTTCCTGCACTGCAAGGAAAGAAATTCACCGACT  
 TCGAGGAGGTGCGCCTTGAGATCGAGGCCGAGACCACAGGGTCAACCGCACCAACAAGGCATCTCGCC  
 GGTGCCTATCAACCTCCGCTCTACTCGCCGACGTGCTGAACCTGACCTGGTGGACCTGCCCGGAATG  
 ACCAAGTCCCGTGGGGACCAACCTCCCGACATCGAGTTCAGATCCGAGACATGCTTATGCAGTTTG  
 TCACCAAGGAGAACTGCCTCATCTGGCCGTGTCCTCCCGCAACTCTGACCTGGCAATTCTGACGCCCT  
 CAAGTTCGCCAAGGAGGTGGACCCAGGGCCAGCGCACCATCGGGTTCATCACAAGCTGGACCTGATG  
 GACGAGGGCACAGATGCCCGTGTGTGCTGGAGAACAGCTGCTCCCTGCGCAGAGGCTACATTTGGAG  
 TGGTGAACCGGAGCCAGAAGGACATTGATGGCAAGAAGGACATTACCGCCGCTTGGCTGCTGAACGAAA  
 GTTCTTCTCTCCATCCATCTTATCGCCACTTGGCTGACCGTATGGGCACGCCCTACCTGCAGAAGGTC  
 CTCAATCAGCAACTGACGAACCACATCCGGGACACACTGCCGGGCTGCGGAACAAGCTGCAGAGCCAGC  
 TACTGTCCATTGAGAAGGAGGTGGAGGAATACAAGAACTCCGCCCTGATGACCCAGCTCGCAAGACCA  
 GGCCCTGCTGCAGATGGTCCAGCAGTTCGCCGTAGACTTTGAGAAGCGCATTGAGGGCTCAGGAGATCAG  
 ATCGACACCTACGAAGTGTGAGGGGAGCCCGCATTAAACGAATCTTCCACGAGCGCTTCCCTTTGAGC  
 TGGTCAAGATGGAGTTTGTGAGAAGAACTCCGAAGGAGATCAGCTATGCTATCAAGAAATCCATGG  
 CATTAGAACGGGCTGTTTACCCAGACATGGCCTTTGAGACCATTGTGAAAAAGCAGGTGAAGAAGATC  
 CGAGAACCGTGTCTCAAGTGTGTGGACATGGTTATCTCGAGCTAATCAGCACCGTTAGACAGTGCACCA  
 AGAAGCTCCAGCAGTACCCGCGCTACGGGAGGAGATGGAGCGCATCGTGACCACCCACATCCGGGAGCG  
 CGAGGGCCGCACTAAGGAGCAGGTATGCTTCTCATCGATATCGAGCTGGCTTACATGAACCAACCAT  
 GAGGACTTCATAGGCTTTGCCAATGCTCAGCAGAGGAGCAACCAGATGAACAAGAAGAAGACTTCAGGGA  
 ACCAGGATGAGATTCTGGTCATCCGAAGGGCTGGCTGACTATCAATAATATTGGCATCATGAAAGGGGG  
 CTCCAAGGAGTACTGGTTTGTGCTGACTGCTGAGAATCTGTCTGGTACAAGGATGATGAGGAGAAAGAG  
 AAGAAATACATGTGTCTGTGGACAACCTCAAGCTGCGGGACGTGGAGAAGGGCTTTATGTGAGCAAGC  
 ATATCTTTGCCCTCTTTAACACGGAGCAGAGGAATGTCTACAAGGATTATCGGCAGCTGGAGCTAGCCTG  
 TGAGACACAGGAGGAGGTGGACAGCTGGAAGGCCTCCTTCTGAGGGCTGGCGTGTACCCTGAGCGTGT  
 GGGGACAAAGAGAAAGCCAGCGAGACCGAGGAGAATGGCTCCGACAGCTTCATGCATTCCATGGACCCAC  
 AGCTGGAACGGCAAGTGGAGACCATCCGGAATCTTGTGGACTCATACATGGCCATTGTCAACAAGACCGT  
 GAGGGACCTCATGCCAAGACCATATGCACCTCATGATTAACAATACCAAGGAGTTCATCTTCTCGGAG  
 CTGCTGGCCAACCTGTACTCGTGTGGGACCAGAACACGCTGATGGAGGAGTCGGCGGAGCAGGCACAGC  
 GGCAGCAGGATGCTGCGCATGTACCACGCACTGAAGGAGGCGCTCAGCATCATCGCGACATCAACAC  
 GACCACCGTCAGCAGCCCATGCCCCGCGCTGGACGACTCCTGGCTGCAGGTGCAGGTGCAGGCTACCGCC  
 GGACGCAGGTCCGCCACGTCCAGCCCCAGCCCGCAGCGCCGAGCCCCGCGTGCCTCCAGCCCGGCCCG  
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 CAGGCCGGGGCTTCCCTGACCTTTCCGGCCCTCCCTCAGGTGCCCTCGCGCCCAACCGCGCCCG  
 CCCGGGTCCCAGCCGATCGGGTCAGGCAAGTCCATCCGTCCTGAGAGCCCCAGGCCCCCTTCGACC  
 TC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218819 representing NM\_004408  
 Red=Cloning site Green=Tags(s)

MGNRGMEDLIPLVNRLQDAFSAIGQNADLDLPQIAVVGGSAGKSSVLENFVGRDFLPRGSGIVTRRPLV  
 LQLVNATTEYAEFLHCKGKFTDFEEVRLIEAETDRVTGTNKGISPVPINLRVYSPHVLNLTLVDLPGM  
 TKVPVGDQPPDIEFQIRDMLMQFVTKENCLILAVSPANSDLANSDALKVAKEVDPQQRITIGVITKLDLM  
 DEGTDARDVLENKLLPLRRGYIGVVNRSQKDIDGKKDITAAALAAERKFFLSHPSYRHLADRMGTPYLQKV  
 LNQQLTNHIRDTLPGLRNKLQSLLSIEKEVEEYKNFRPDDPARKTKALLQMVQQF AVDFEKRIEGSGDQ  
 IDTYELSGGARINRIFHERFPFELVKMEFDEKELRREISYAIKNIHGIRTGLFTPDMAFETIVKKQVKKI  
 REPCLKCVDMVISELISTVRQCTKKLQYPREREEMERIVTTHIREREGRTKEQVMLLIDIELAYMNTNH  
 EDFIGFANAQQRSNQMNKKKTSGNQDEILVIRKGWLTINNIIGIMKGSKEYWFLTAENLSWYKDDEEKE  
 KKYMLSVDNLKLRDVEKGFMSKHFALFNTEQRNVYKDYRQLELACETQEEVDSWKASFLRAGVYPERV  
 GDKEKASETEENGSDSFHSMMPQLERQVETIRNLVDSYMAIVNKTVRDLMPKTIHMLMINNTKEIFSE  
 LLANLYSCGDQNTLMEESAQAQRREMLRMYHALKEALSIIGDINTTTVSTPMPPPVDSDWLQVQSVPA  
 GRRSPTSSPTPQRRAPAVPPARPGSRGAPGPPPAGSALGGAPPVPSRPGASDPDFGPPQVPSRPNRAP  
 PGVPSRSGQASPRPESRPPFDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk8022\\_e05.zip](https://cdn.origene.com/chromatograms/mk8022_e05.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

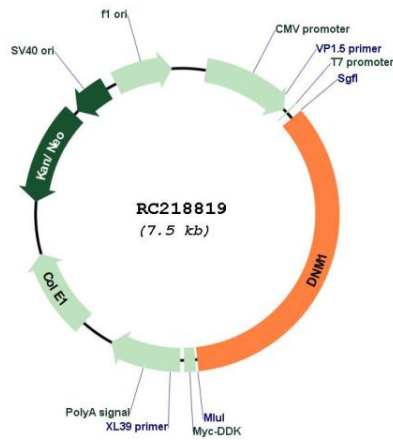
Cloning sites used for ORF Shuttling:



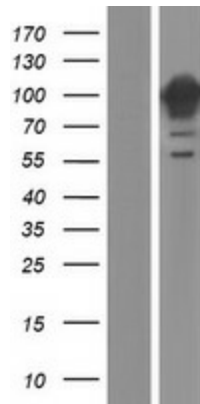
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_004408
<b>ORF Size:</b>	2592 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_004408.4</a>
<b>RefSeq Size:</b>	3216 bp
<b>RefSeq ORF:</b>	2595 bp
<b>Locus ID:</b>	1759
<b>UniProt ID:</b>	<a href="#">Q05193</a>
<b>Cytogenetics:</b>	9q34.11
<b>Domains:</b>	dynamain_2, dynamain, PH, GED
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Endocytosis, Fc gamma R-mediated phagocytosis
<b>MW:</b>	97.2 kDa
<b>Gene Summary:</b>	This gene encodes a member of the dynamain subfamily of GTP-binding proteins. The encoded protein possesses unique mechanochemical properties used to tubulate and sever membranes, and is involved in clathrin-mediated endocytosis and other vesicular trafficking processes. Actin and other cytoskeletal proteins act as binding partners for the encoded protein, which can also self-assemble leading to stimulation of GTPase activity. More than sixty highly conserved copies of the 3' region of this gene are found elsewhere in the genome, particularly on chromosomes Y and 15. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC218819



Western blot validation of overexpression lysate (Cat# [LY418003]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218819 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).