

Product datasheet for **RC223585**

Dynamin 2 (DNM2) (NM_001005360) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Dynamin 2 (DNM2) (NM_001005360) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Dynamin 2 |
| Synonyms: | CMT2M; CMTD11; CMTDIB; DI-CMTB; DYN2; DYNII; LCCS5 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC223585 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGCAACCGGGGATGGAAGAGCTGATCCCGCTGGTCAACAACTGCAGGACGCCTTCAGCTCCATCG
 GCCAGAGCTGCCACCTGGACCTGCCGAGATCGCTGTAGTGGGCGGCCAGAGCGCCGGCAAGAGCTCGGT
 GCTGGAGAATTCTGGGGCCGGACTTCCTTCCCGCGGTTTACGGAATCGTCACCCGCGGCCTCTCATT
 CTGCAGCTCATCTTCTCAAAAACAGAACATGCCGAGTTTTTGCAGTCAAGTCCAAAAAGTTTACAGACT
 TTGATGAAGTCCGGCAGGAGATTGAAGCAGAGACCACAGGGTACGGGGACCAACAAAGGCATCTCCCC
 AGTGCCCATCAACCTTCGAGTCTACTCGCCACACGTGTTGAACTTGACCCTCATCGACTCCCGGGTATC
 ACCAAGGTGCCTGTGGGCGACCAGCCTCCAGACATCGAGTACCAGATCAAGGACATGATCCTGCAGTTCA
 TCAGCCGGGAGAGCAGCCTCATTCTGGCTGTACGCCCGCAACATGGACTGGCCAACCTCCGACGCCCT
 CAAGCTGGCCAAGGAAGTCGATCCCAAGGCCTACGGACCATCGGTGTCATCACCAAGCTTGACCTGATG
 GACGAGGGCACCCAGCCAGGGAGCTTGGAGAACAAAGTTGCTCCCGTTGAGAAGAGGCTACATTTGGCG
 TGGTGAACCGCAGCCAGAAGGATATTGAGGGCAAGAAGGACATCCGTGCAGCACTGGCAGCTGAGAGGAA
 GTTCTTCTCTCCACCCGGCCTACCGGCACATGGCCGACCGCATGGGCACGCCACATCTGCAGAAGACG
 CTGAATCAGCAACTGACCAACCACATCCGGGAGTCGCTGCCGGCCCTACGTAGCAAACTACAGAGCCAGC
 TGCTGTCCCTGGAGAAGGAGGTGGAGGAGTACAAGAACTTTGGCCCGACGACCCACCCGCAAAACCAA
 AGCCCTGCTGCAGATGGTCCAGCAGTTTGGGGTGGATTTGAGAAGAGGATCGAGGGTCCAGGAGATCAG
 TGGGACACTCTGGAGCTCTCCGGGGCGCCGAATCAATCGCATCTTCCACGAGCGGTTCCCATTTGAGC
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 AGTCAGGACCGGGCTTTTACCCCGGACTTGGCATTTCGAGGCCATTGTGAAAAAGCAGGTGTCAGAGCTG
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 GTAAGCTCAGTTCTACCCCGGTTGCGAGAGGAGACAGAGCGAATCGTCACCACTTACATCCGGGAACG
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 GAGGACTTCATCGGGTTTGCCAATGCCAGCAGAGGAGCAGCAGCTGAACAAGAAGAGAGCCATCCCCA
 ATCAGGGGAGATCCTGGTGATCCGACGGGCTGGCTGACCATCAACAACATCAGCCTGATGAAAGGCGG
 CTCCAAGGAGTACTGGTTTGTGCTGACTGCCGAGTCACTGTCTGGTACAAGGATGAGGAGGAGAAAGAG
 AAGAAGTACATGTGCCCTTGACAACCTCAAGATCCGTGATGTGAGAAGGGCTTCATGTCCAACAAGC
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 TGACTCCAGGAAGAGCTGGACAGCTGGAAGGCCTCGTTCTCCGAGCTGGCGTCTACCCCGAGAAGGAC
 CAGGCAGAAAACGAGGATGGGGCCAGGAGAACACCTTCTCCATGGACCCCAACTGGAGCGGCAGGTGG
 AGACCATTCGCAACCTGGTGGACTCATACGTGGCCATCATCAACAAGTCCATCCGCGACCTCATGCCAAA
 GACCATCATGCACCTCATGATCAACAATACGAAGGCCTTCATCCACCACGAGCTGCTGGCCTACCTATAC
 TCCTCGGCAGACCAGAGCAGCCTCATGGAGGAGTCGGCCGACCAGGCACAGCGGGGACGACATGCTGC
 GCATGTACCATGCCCTCAAGGAGGCGCTCAACATCATCGGTGACATCAGCACCAGCACTGTGTCCACGCC
 GTACCCCGCCTGTGATGACACCTGGCTCCAGAGCGCCAGCCACAGCCCACTCCACAGCGCCGA
 CCGGTGTCCAGCATACACCCCTGGCCGGCCCGCCAGCAGTGGGGGCCCACTCCAGGGCCCCCTGA
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 CGTGTTCGCAACAGTGACCTCTTCCAGCCCCGCTCAGATCCCATCTCGGCCAGTTCCGGATCCCCCA
 GGGATTCCCCAGGAGTGCCAGCAGAAGACCCCTGCTGCGCCAGCCGGCCACCATTATCCGCCAG
 CCGAGCCATCCCTGCTCGAC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223585 protein sequence
 Red=Cloning site Green=Tags(s)

MGNRGMEELIPLVNLQDAFSSIGQSCHLDLPQIAVVGGSAGKSSVLENFVGRDFLPRGSGIVTRRPLI
 LQLIFSKTEHAFLHCKSKKFTDFDEVQRQEIAETDRVTGTNKGISPVINL RVYSPHVLNLTIDLPGI
 TKVPVGDQPPDIEYQIKDMILQFISRESSLILAVTPANMDLANSALKLAKEVDPQGLRTIGVITKLDLM
 DEGTDARDVLENKLLPLRRGYIGVVNRSQKDIIEGKKDIRAALAAERKFFLSHPAYRHMAADRMGTPHLQKT
 LNQQLTNHIRESL PALRSKLQSLLSLEKEVEEYKNFRPDDPTRKTKALLQMVQQFVDFEKRIE GSGDQ
 VDTLELSGGARINRIFHERFPFELVKMEFDEKDLRREISYAIKNIHGVRTGLFTPDLAFAEIVKKQVVKL
 KEPCLKCVDLVIQELINTV RQCTSKLSSYPRLREETERIVTTYIREREGRTKDQILLIDIEQSYINTNH
 EDFIGFANAQRSTQLNKKRAIPNQGEILVIRRGWLTINNI SLMKGSKEYWVFLTAESLSWKDEEEKE
 KKYMLPLDNLKIRDVEKGFMSNKHVFAIFNTEQRNVYKDLRQIELACDSQEDVDSWKASFLRAGVYPEKD
 QAENEDGAQENTFSMDPQLERQVETIRNLVDSYVAIINKSIRDLMPKTIMHLMINNTKAFIHELLAYLY
 SSADQSSLMEESADQAQRDDMLRMYHALKEALNIIGDISTSTVSTPVPVPPVDDTWLQSASSHSPTPQR
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 GIPPGVPSRRPPAAPSRTIIRPAEPLLD

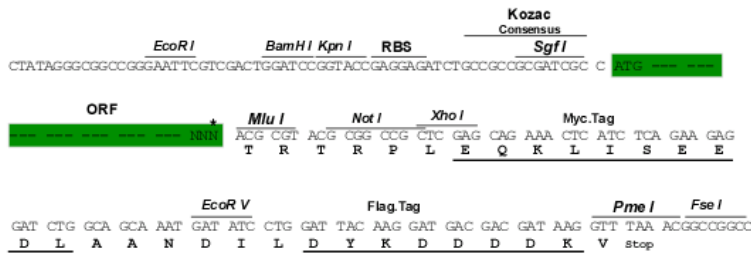
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6454_h07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

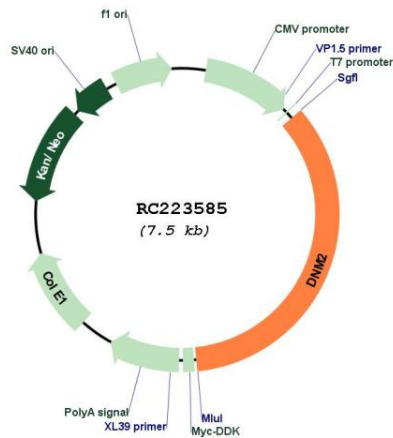
Cloning sites used for ORF Shuttling:



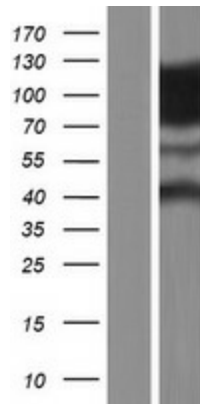
* The last codon before the Stop codon of the ORF

| | |
|-------------------------------|--|
| ACCN: | NM_001005360 |
| ORF Size: | 2610 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. |
| RefSeq: | NM_001005360.3 |
| RefSeq Size: | 3684 bp |
| RefSeq ORF: | 2613 bp |
| Locus ID: | 1785 |
| UniProt ID: | P50570 |
| Cytogenetics: | 19p13.2 |
| Protein Families: | Transcription Factors |
| Protein Pathways: | Endocytosis, Fc gamma R-mediated phagocytosis |
| MW: | 98.1 kDa |
| Gene Summary: | Dynammins represent one of the subfamilies of GTP-binding proteins. These proteins share considerable sequence similarity over the N-terminal portion of the molecule, which contains the GTPase domain. Dynammins are associated with microtubules. They have been implicated in cell processes such as endocytosis and cell motility, and in alterations of the membrane that accompany certain activities such as bone resorption by osteoclasts. Dynammins bind many proteins that bind actin and other cytoskeletal proteins. Dynammins can also self-assemble, a process that stimulates GTPase activity. Five alternatively spliced transcripts encoding different proteins have been described. Additional alternatively spliced transcripts may exist, but their full-length nature has not been determined. [provided by RefSeq, Jun 2010] |

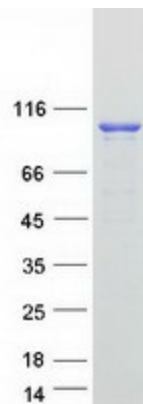
Product images:



Circular map for RC223585



Western blot validation of overexpression lysate (Cat# [LY423698]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC223637] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DNM2 protein (Cat# [TP323585]). The protein was produced from HEK293T cells transfected with DNM2 cDNA clone (Cat# RC223585) using MegaTran 2.0 (Cat# [TT210002]).