

Product datasheet for **RG223757**

Dynamin 2 (DNM2) (NM_001005362) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dynamin 2 (DNM2) (NM_001005362) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DNM2
Synonyms:	CMT2M; CMTD11; CMTDIB; DI-CMTB; DYN2; DYNII; LCCS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG223757 representing NM_001005362
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCAACCGCGGGATGGAAGAGCTGATCCCGCTGGTCAACAACTGCAGGACGCCTTCAGCTCCATCG
 GCCAGAGCTGCCACCTGGACCTGCCGAGATCGCTGTAGTGGGCGCCAGAGCGCCGGCAAGAGCTCGGT
 GCTGGAGAACTTCGTGGGCCGGGACTTCCTTCCCGCGGTTTACGGAATCGTCACCCGCGGCCTCTCATT
 CTGCAGCTCATCTTCTCAAAAACAGAACATGCCGAGTTTTTGCAGTCAAGTCCAAAAAGTTTACAGACT
 TTGATGAAGTCCGGCAGGAGATTGAAGCAGAGACCACAGGGTACGCGGGACCAACAAAGGCATCTCCCC
 AGTGCCCATCAACCTTCGAGTCTACTCGCCACACGTGTTGAAGTACCCCTCATCGACTCCCGGGTATC
 ACCAAGGTGCCTGTGGGCGACCAGCCTCCAGACATCGAGTACCAGATCAAGGACATGATCCTGCAGTTCA
 TCAGCCGGGAGAGCAGCCTCATTCTGGCTGTACGCCCCCAACATGGACCTGGCCAACCTCCGACGCCCT
 CAAGCTGGCCAAGGAAGTCGATCCCAAGGCCTACGGACCATCGGTGTCATCACCAAGCTTGACCTGATG
 GACGAGGGCACCCAGCCAGGGACGTCTTGAGAAACAAGTTGCTCCCGTTGAGAAGAGGCTACATTTGGCG
 TGGTGAACCGCAGCCAGAAGGATATTGAGGGCAAGAAGGACATCCGTGCAGCACTGGCAGCTGAGAGGAA
 GTTCTTCTCTCCACCCGGCCTACCGGCACATGGCCGACCGCATGGGCACGCCACATCTGCAGAAGACG
 CTGAATCAGCAACTGACCAACCACATCCGGGAGTCGCTGCCGGCCCTACGTAGCAAACTACAGAGCCAGC
 TGCTGTCCCTGGAGAAGGAGGTGGAGGAGTACAAGAACTTTGGCCCGACGACCCACCCGCAAAACCAA
 AGCCCTGCTGCAGATGGTCCAGCAGTTTGGGGTGGATTTGAGAAGAGGATCGAGGGCTCAGGAGATCAG
 GTGGACACTCTGGAGCTCTCCGGGGCGCCGAATCAATCGCATCTTCCACGAGCGGTTCCCATTTGAGC
 TGGTGAAGATGGAGTTTGACGAGAAGGACTTACGACGGGAGATCAGCTATGCCATTAAGAACATCCATGG
 AGTCAGGACGGGGCTCTTCAACCCCGACATGGCCTTTGAAGCCATTGTGAAAAACAGATTGTA AAACTC
 AAAGAGCCGAGTTTGAAGTGTGTGATCTCGTGGTCTCAGAGCTGGCCACGGTCAAAAAAGTGTGCCG
 AGAAGCTCAGTTCTACCCCGGTTGCGAGAGGAGACAGAGCGAATCGTCACCACTTACATCCGGGAACG
 GGAGGGGAGAACGAAGGACCAGATTCTTCTGCTGATCGACATTGAGCAGTCTACATCAACACGAACCAT
 GAGGACTTCATCGGGTTTGCCAATGCCAGCAGAGGAGCAGCAGCTGAACAAGAAGAGAGCCATCCCCA
 ATCAGGTGATCCGCAGGGGCTGGCTGACCATCAACAACATCAGCCTGATGAAAGGCGGCTCAAGGAGTA
 CTGTTTTGTGCTGACTGCCGAGTCACTGTCTGGTACAAGGATGAGGAGGAGAAAGAGAAGAAGTACATG
 CTGCCTCTGGACAACCTCAAGATCCGTGATGTGGAGAAGGGCTTCATGTCCAACAAGCACGTCTTCGCCA
 TCTTCAACACGGAGCAGAGAAACGTCTACAAGGACCTGCCGCAGATCGAGCTGGCCTGTGACTCCCAGGA
 AGACGTGGACAGCTGGAAGGCCTCGTTCCTCCGAGCTGGCGTCTACCCCGAGAAGGACCAGGCAGAAAAAC
 GAGGATGGGGCCAGGAGAACACCTTCTCCATGGACCCCAACTGGAGCGGCAGGTGGAGACCATTTCGCA
 ACCTGGTGGACTCATACGTGGCCATCATCAACAAGTCCATCCCGGACCTCATGCCAAAGACCATCATGCA
 CCTCATGATCAACAATACGAAGGCCTTCATCCACCACGAGCTGTGGCCTACCTATACTCCTCGGCAGAC
 CAGAGCAGCCTCATGGAGGAGTCGGCTGACCAGGCACAGCGGGGACGACATGCTGCGCATGTACCATG
 CCCTCAAGGAGGGCTCAACATCATCGGTGACATCAGCACCAGCACTGTGTCCACGCCTGTACCCCGCC
 GTTCGATGACACCTGGCTCCAGAGCGCCAGCAGCCACAGCCCACTCCACAGCGCCGACCGGTGTCCAGC
 ATACACCCCTGGCCGGCCCCAGCAGTGAAGGGCCCCACTCCAGGGCCCCCTGATTCTCTGTTCCCG
 TGGGGGACGAGCCTCCTTCTCGCGCCCCAATCCCATCCCGGCTGGACCCAGAGCGTGTGTTGCCAA
 CAGTGACCTTCCAGCCCCGCTCAGATCCCATCTCGCCAGTTTCGGATCCCCCAGGGATTCCCCCA
 GGAGTGCCAGCAGAAGACCCCTGCTGCGCCAGCCGGCCACCATTATCCGCCAGCCGAGCCATCCC
 TGCTCGAC

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG223757 representing NM_001005362
 Red=Cloning site Green=Tags(s)

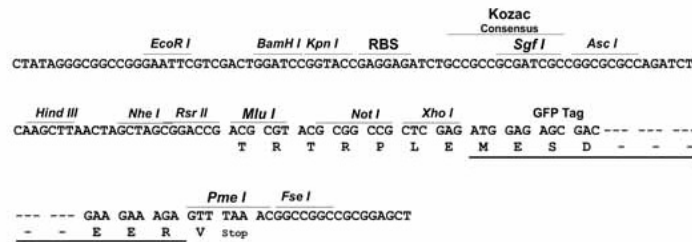
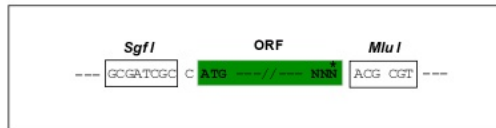
MGNRGMEELIPLVNLQDAFSSIGQSCHLDLPQIAVVGQSAGKSSVLENFVGRDFLPRGSGIVTRRPLI
 LQLIFSKTEHAFLHCKSKKFTDFDEVQRQEIEAETDRVTGTNKGISPVPINLRVYSPHVLNLTIDLPGI
 TKVPVGDQPPDIEYQIKDMILQFISRESSLILAVTPANMDLANSALKLAKEVDPQGLRTIGVITKLDLM
 DEGTDARDVLENKLLPLRRGYIGVVNRSQKDIEGKKDIRAALAAERKFFLSHPAYRHMADRMGTPHLQKT
 LNQQLTNHIRESLPALRSKLQSLLSLEKEVEEYKNFRPDDPTRKTKALLQMVQFQVDFEKRIEESGDQ
 VDTLELSGGARINRIFHERFPFELVKMEFDEKDLRREISYAIKNIHGVRTGLFTPDMAFEAIVKQIVKL
 KEPSLKCVDLVVSELATVIKKCAEKLSSYPRLREETERIVTTYIREREGRTKDQILLIDIEQSYINTNH
 EDFIGFANAQQRSTQLNKKRAIPNQVIRRGWLTINNISLMKGSKEYWFLTAESLSWKDEEEKEKYM
 LPLDNLKIRDVEKGFMSNKHVFAIFNTEQRNVYKDLRQIELACDSQEDVDSWKASFLRAGVYPEKDAQEN
 EDGAQENTFSMDPQLERQVETIRNLVDSYVAIINKSIRDLMPKTIMHLMINNTKAFIHHELLAYLYSSAD
 QSSLMEESADQAQRDDMLRMYHALKEALNIIGDISTSTVSTPVPVDDTWLQSASSHSPTPQRRPVSS
 IHPPGRPPAVRGPTPGPPLIPVPGAAASF SAPPISRPGPQSVFANSDFPAPPQIPSRPVRIPPGIPP
 GVPSRRPPAAPSRPTIIRPAEPLLD

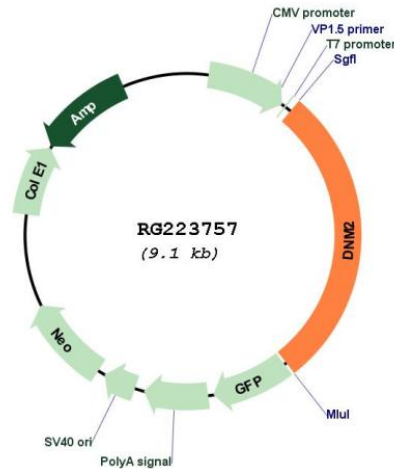
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_001005362

ORF Size: 2598 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001005362.2](#), [NP_001005362.1](#)

RefSeq Size:	3672 bp
RefSeq ORF:	2601 bp
Locus ID:	1785
UniProt ID:	P50570
Cytogenetics:	19p13.2
Protein Families:	Transcription Factors
Protein Pathways:	Endocytosis, Fc gamma R-mediated phagocytosis
Gene Summary:	<p>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]</p>