

Product datasheet for **MR209489**

Rhot2 (NM_145999) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rhot2 (NM_145999) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rhot2
Synonyms:	Arht2; Miro2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209489 representing NM_145999
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGGCGGATGTTTCGCATCCTGCTGCTGGGCGAGGCCAGGTGGGAAGACGTCTCTGATCCTGTGCG
 TGGTCGGCGAGGAGTTTCCCGAGGAGTCCCTGCCCGCGCGGAGGAGATAACCATCCCCGCCGACGTCAC
 CCCGGAGAAGGTGCCCACTCATATCGTGGATTACTCAGAAGCGGAGCAGACAGAGGAAGAACTTCAGGAG
 GAGATCCACAAGGCAAATGTAGTGTGTGTGGTGTACGATGTGTCTGAGGAGACCACCATTGAGAAGATCC
 GAACCAAGTGGATCCCGCTTGTGAATGGCAGGACGGCGACAGGGCCAGGTTGCCCATCATCCTGGTGGG
 CAATAAGTCTGACCTGCGGCCGGGGAGTACCATGGAGGCTGTGCTGCCCATCATGAGCCAGTTTCTGAG
 ATAGAGACCTGCGTGGAGTGTTCAGCCAAGCACTTGAGGAATATCTCAGAGCTGTTCTACTATGCCCAGA
 AGGCTGTTCTGCATCCCACAGCCCCCTTTATGACCCTGAGGCCAAACAGCTCAGGCCTGCATGCGCCCA
 GGGCTCACACGCATCTCAGGCTGTGCGACCAGGACCGAGACCAGGGCTGAGCGACGAGGAACCTAAT
 GCCTTCCAGAAGTCTGCTTTGGCCATCCCTGGCCCCACAGGCCCTGGAGGATGTGAAGAGGGTGGTGT
 GCAAGAACGTGTAGGTGGTGTGCAGAATGACCGGCTGACCCTGGAAGGCTTCTCTTCTGAACACACT
 CTTTCATCCAGCGTGGCCGGCACGAGACCAGTGGACCATCCTGCGGCGCTTTGGTTACAGTGACTCACTG
 GAGCTAACGCCGACTACCTCTATCCAGCGCTCCATGTCCCCCTGGCTGCAGCAGAGACTCAACCATC
 GTGGCTACCAGTTTGTGACGCGGATGTTTCGAGAAGCATGACCAGGACCATGATGGTGTCTCTCGCCAC
 GGAACACAGAATCTCTCAGTGTGTTCTCAGGTGCTCCATGGGGCCCTGAACTTTACACACAGTCCCC
 ACTCAGGCTGGCTGTCTGCTTTGCATGGCTATCTCTGCCAGTGGACCCATGACCTACTTGGATGTC
 AGCAATGCCTTGCACACCTTGGCTACCTGGGTTACCCTACCCTCTGTGAACAGGACTCTCAGGCACAGCC
 TATCACAGTTACCCGCGAGAAGAAGCTGGACCAGGAGAAAGGGCAGACACAGCGCAGCGTCTCATGTGT
 AAGGTGCTGGGAGCCCGAGGAGTGGGCAAGTACGCTTCTTGAAGCCTTCTTGGCAACAGCCTTGGGG
 AAGCCAGGACCCCTGAGAAATCCCCCTGCATACCATCAATACAGTGCGGGTCAACGGGCAGGAGAA
 GTACCTGATTCTGTGGAAGTGAATGCTGACAGCCTGCTGGACACCTCTTAGACACTACCTGTGATGTC
 GCCTGCTTAATGTTTACAGCAGTATCCCAAGACCTTTGTACACTGTGCTACCATATAACAAGCCTTATT
 ACATGGATGGGCAGACCCCTGCCTCTTATTGCCTCAAAGCTGATCTCCCTGAAGGTGTTGCCCCCC
 AGGGCTGTACCCGCTGAGTTCGCGGAGGCACCGGCTGCCTGCCCCAGCTTCATTCTCCTGCTGGGA
 CCCGCAATGCCACAGCAGATGTCTTTACCAACTTGCTACCATGGCCACTTTCCACACCTGGTGCACA
 CAGAGCTGCACCCACCTCCTTCTGGCTCCGAGGAGTGTGGTGGCTGTGCGCACGGCTGTGGCTGCTGT
 CCTTAGCTTCTACTATACAGGGTCTAGTGAAGAGCCGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209489 representing NM_145999
 Red=Cloning site Green=Tags(s)

MRRDVRILLLGEAQVKGKSLILSLVGEFPEEVPARAEEITIPADVTPEKVPHTHVDYSEAEQTEEELQE
 EIHKANVVCVVYDVSEETIEKIRTKWIPLVNGRTATGPRLPIILVGNKSDLRPGSTMEAVLPIMSQFPE
 IETCVCESAKHLRNISELFYYAQKAVLHPTAPLYDPEAKQLRPACAQALTRIFRLSDQDRDHGLSDEELN
 AFQKSCFGHPLAPQALEDVKRVCKNVSGGVQNDRLTLEGFLFNLFIQRRHETTWTILRRFGYSDSL
 ELTPDYLYPALHVPPGCSTELNHRGYQFVQRMFEKHDQDHDGVLSPTELQNLFSVFSGAPWGPPELLHTVP
 TQAGCLPLHGYLCQWTLMTYLDVQQLAHLGGLGYPTLCEQDSQAQAITVTREKKLDQEKGTQRSVLMC
 KVLGARGVGKSAFLQAFNGSLGEARDPPEKFPPLHTINTVRVNGQEKYLILCEVNADSLDTSLDTTCDV
 ACLMFDSSDPKTFVHCATIKRYMDGQTPCLFIASKADLPEGVAPPGLSPAEFRRRHRLPAPASFSLG
 PAMPSTDVFTQLATMATFPHLVHTELHPTSFWLRGVLVAVGTAVAAVLSFSLYRVLVKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9014_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145999

ORF Size: 1860 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.

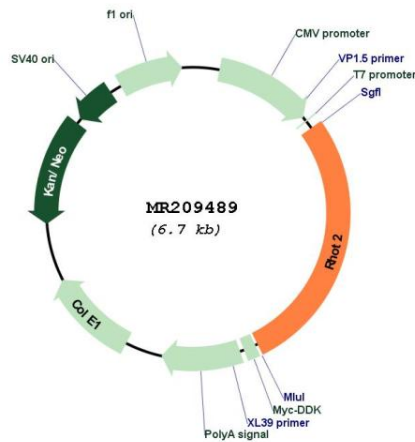
RefSeq: [NM_145999.3](#)

RefSeq Size: 2825 bp

RefSeq ORF: 1863 bp

Locus ID: 214952
UniProt ID: [Q8JZN7](#)
Cytogenetics: 17 12.93 cM
MW: 69.5 kDa
Gene Summary: Mitochondrial GTPase involved in mitochondrial trafficking. Probably involved in control of anterograde transport of mitochondria and their subcellular distribution (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209489