

Product datasheet for **MR224933**

Rhot1 (NM_001163355) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rhot1 (NM_001163355) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rhot1
Synonyms:	2210403N23Rik; AA415293; AF244542; AI834919; Arht1; C430039G08Rik; Miro1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR224933 representing NM_001163355
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGTGCGGCCGAGTGCGGCCCTGCGAGCCTCCGACATGAAGAAAGACGTGAGGATCCTGCTGGTGG
 GAGAACCTCGAGTTGGGAAGACATCACTGATTATGTCGCTGGTCAGTGAAGAATTTCCGGAAGAGGTTCC
 TCCCCGAGCAGAAGAAATCACCATTCCAGCTGACGTCAACCCCTGAAAGAGTTCCAACACACATTGTCGAT
 TATTCAGAAGCAGAACAGAGTGATGAACAACCTTCATCAAGAAATATCACAGGCTAATGTTATCTGCATAG
 TTTATGCTGTTAAACAACAAACATTCTATTGATAAGGTAACAAGCCGATGGATTCTCTCATAAATGAAAG
 AACAGACAAAGACAGCAGGCTGCCTTTGATATTGGTTGGGAACAAATCTGATCTGGTGGAAATATAGTAGT
 ATGGAGACCATCCTTCCAATTATGAACCAAGTATACAGAGATAGAGACCTGTGTGGAGTGTTCAGCAAAAA
 ACCTAAAGAATATCTCAGAGCTGTTTTATTATGCACAGAAAGCTGTTCTTCATCTACAGGGCCTCTATA
 CTGCCAGAGGAGAAAGAGATGAAACCGGCTTGTATAAAGGCCCTCACTCGTATATTTAAAAATATCTGAT
 CAGGATAACGACGGCACTCTGAATGATGCTGAGCTCAACTTCTCCAGAGAATTTGTTTCAACACTCCTT
 TAGCTCCGCAAGCGCTGGAAGATGTCAAGAATGTGGTTAGAAAGCACTTAAAGTGACGGTGTGGCTGACAG
 TGGGCTGACGCTCAGAGGTTTTCTTTTTACATACACTTTTTATCCAGAGGGGGAGGCATGAGACTACT
 TGGACTGTGCTTCGACGATTTGGTTATGACGATGACCTGGACCTGACGCCTGAGTATTTATCCCCCTGC
 TAAAAATACCTCCTGATTGCACTACTGAATTAATCATCATGCATATTTGTTTCTCCAGAGCACCTTTGA
 CAAACATGATTTGGACAGAGACTGTGCTTTGTGCGCTGATGAACTTAAAGATTTATTTCAAGTTTTCT
 TACATACCTTTGGGACCAGATGTAATAACACAGTTTGCACAAATGAAAGAGGCTGGATAACCTACCAGG
 GGTTCTCTCCAGTGGACGCTCACCACCTACTTAGATGTGCAGGTTGCCTGGAGTATTTGGGATATCT
 AGGCTATTCATACTGACGGAACAAGAGTCTCAAGCTTCAGCCATTACAGTAACAAGGGATAAAAAAGATT
 GACCTGCAGAAAAACAGACTCAGAGAAATGTGTTGAGGTGTAATGTAATTGGAGTGAAGGCTGTGGGA
 AAAGTGGAGTTCTTCAGTCTCTCCTTGGAAAGAAACCTAATGAGGCAGAAGAAAATTCGTGATGATCATAA
 GTCCTATTATGCAATTAACACTGTCTATGTATATGGACAAGAGAAATACTTGTGCTGCACGATATCTCA
 GAGTCGGAATTTCTAACTGAGGCTGAGACCATTTGTGATGTTGTATGCCTGGTATATGATGTCACCAATC
 CCAAATCCTTTGAATACTGTGCCAGGATTTTTAAGCAACATTTTATGGACAGCAGAATCCCTGCTTGAT
 TGTAGCTGCAAAGTCAGACCTGCATGAAGTCAAACAGGAACATAGCATCTCACCTACTGATTTCTGCAGG
 AAACACAAAATGCCTCCACCTCAAGCCTCACTTGCAATACTGCTGATGCCCCAGTAAGGATATCTTTG
 TTAAGTTGACAACAATGGCCATGTACCCCATGCCCGTTACGCTGCATGTGCACCTGCAACAGGTGTAC
 ATTTTGATCTGTGAGAACTTCTCAACTCAGACTTGCTGCAATCTGTAAGAACAATACTTCACTGCA
 GTTCTTAACAGGCACGTGACACAAGCTGACCTCAAGAGCTCAACGTTCTGGCTTCGCGCAAGCTTTGGTG
 CTACGGTCTTTGCAGTCGTGGGCTTTGCTATGTACAGAGCACTACTGAAACAGCGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR224933 representing NM_001163355
Red=Cloning site Green=Tags(s)

MRAGRVRPLRASDMKKDVRILLVGEPRVGKTSLSIMSLVSEEFPEEVPPRAEEITIPADVTPERVPTIIVD
 YSEAEQSDQLHQEISQANVICIVYAVNNKHSIDKVTSRWIPLINERTDKDSRLPLILVGNKSDLVEYSS
 METILPIMNQYTEIETCCECSAKNLKNISELFYYAQKAVLHPTGPLYCPEEKEMKPACIKALTRIFKISD
 QDNDGTLNDAELNFFQRICFNTPLAPQALEDEVKNVVRKHLSDGVADSGLTRGFLFLHTLFIQRGRHETT
 WTVLRRFGYDDDLTPEYLFPLLKIPDCTELNHHAYLFLQSTFDKHDLDRCALSPDELKDLFQVFP
 YIPWGPVDVNTVCTNERGWITYQGFLSQWLTYYLDVQRCLEYLGYLGYSILTEQESQASAITVTRDKKI
 DLQKKQTQRNVFRNCVIGVKCGKGTGVLQSLGRNLMRQKIRDDHKSYYAINTVYVYGQEKYLLLDHDS
 ESEFLTEAETICDVVCLVYDVTNPKSFEYCARIKQHFMSRIPCLIVAASDLHEVKQEHSISPTDFCR
 KHKMPPQAFTCNTADAPSKDIFVKLTMMYPHARLRMCTCNRCTFCICQNFLNSDLLQSVKNIIFTA
 VLNRHVTQADLKSSFTWLRASFGATVFAVVGAFMYRALLKQR

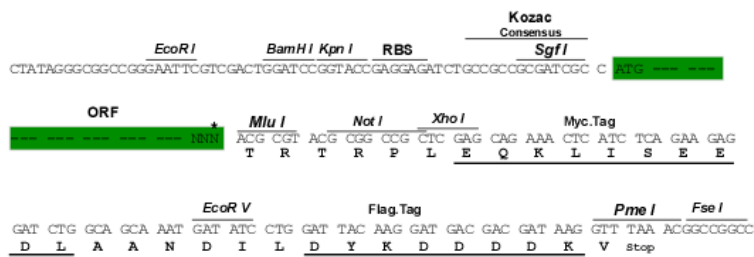
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9004_h03.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_001163355

ORF Size: 2016 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_001163355.2](#)

RefSeq Size: 4260 bp

RefSeq ORF: 2019 bp

Locus ID: 59040

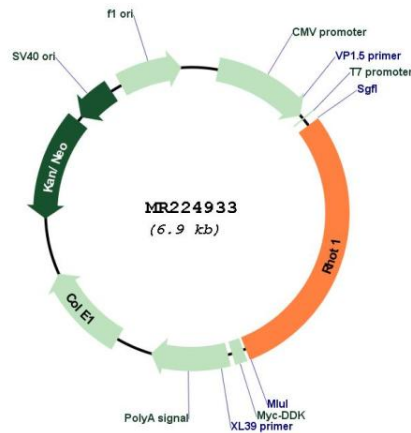
UniProt ID: [Q8BG51](#)

Cytogenetics: 11 47.62 cM

MW: 77.5 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 MR224933