

## Product datasheet for **RC239033**

### **MIRO1 (RHOT1) (NM\_001288755) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MIRO1 (RHOT1) (NM_001288755) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RHOT1
Synonyms:	ARHT1; MIRO-1; MIRO1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC239033 representing NM\_001288755  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCTCTGGTCAGTGAAGAATTTCCAGAAGAGTTCTCCCGGCAGAAAGAAATCACCATTCCAGCTG  
 ATGTCACCCAGAGAGAGTTCCAACACACATTGTAGATTACTCAGAAGCAGAACAGAGTGATGAACAACT  
 TCATCAAGAAATATCTCAGGCTAATGTCATCTGTATAGTGTATGCCGTTAACAACAAGCATTCTATTGAT  
 AAGGTAACAAGTCGATGGATTCTCTCATAAATGAAAGAACAGACAAAGACAGCAGGCTGCCTTTAATAT  
 TGGTTGGGAACAAATCTGATCTGGTGAATATAGTAGTATGGAGACCATCCTTCTATTATGAACAGTA  
 TACAGAAATAGAAACCTGTGTGGAGTGTTCAGCGAAAAACCTGAAGAACATATCAGAGCTCTTTTATTAC  
 GCACAGAAAGCTGTTCTTCATCTACAGGGCCCTGTACTGCCAGAGGAGAAGGAGATGAAACCAGCTT  
 GTATAAAAGCCCTTACTCGTATATTTAAAATATCTGATCAAGATAATGATGGTACTCTCAATGATGCTGA  
 ACTCAACTTCTTTCAGAGGATTTGTTTCAACACTCCATTAGCTCCTCAAGCTCTGGAGGATGCAAGAAT  
 GTAGTCAGAAAACATATAAGTGATGGTGTGGCTGACAGTGGGTTGACCCTGAAAGGTTTTCTCTTTTAC  
 ACACACTTTTTATCCAGAGAGGGAGACAGAACTACTTGGACTGTGCTTCGACGATTTGGTTATGATGA  
 TGACCTGGATTTGACACCTGAATATTTGTTCCCCCTGCTGAAAATACCTCCTGATTGCACTACTGAATTA  
 AATCATCATGCATATTTATTTCTCAAAGCACCTTTGACAAGCATGATTTGGATAGAGACTGTGCTTTGT  
 CACCTGATGAGCTTAAAGATTTATTTAAAGTTTCCCTTACATACCTTGGGGGCCAGATGTGAATAACAC  
 AGTTTGTACCAATGAAAGAGGCTGGATAACCTACCAGGGATTCTTTCCAGTGGACGCTCAGCAGCTTAT  
 TTAGATGTACAGCGGTGCTGGAATATTTGGGCTATCTAGGCTATTCAATATTGACTGAGCAAGAGTCTC  
 AAGCTTCAGCTGTTACAGTGACAAGAGATAAAAAGATAGACCTGCAGAAAAACAACTCAAAGAAATGT  
 GTTCAGATGTAATGTAATTGGAGTGAAAAACTGTGGGAAAAGTGGAGTTCTTCAGGCTCTTCTTGGAAAG  
 AACTTAATGAGGCAGAAGAAAATTCGTGAAGATCATAAATCCTACTATGCGATTAACACTGTTTATGAT  
 ATGGACAAGAGAAACTTGTGTTGTCATGATATCTCAGAATCGGAATTTCTAACTGAAGCTGAAATCAT  
 TTGTGATGTTGTATGCCTGGTATATGATGTCAGCAATCCCAAATCCTTTGAATACTGTGCCAGGATTTT  
 AAGCAACTTTATGGACAGCAGAATACCTTGCTTAATCGTAGCTGCAAAGTCAGACCTGCATGAAGTTA  
 AACAAGAATACAGTATTTACCTACTGATTTCTGCAGGAAACACAAAATGCCTCCACCACAAGCCTTCAC  
 TTGCAATACTGCTGATGCCCCAGTAAGGATATCTTTGTTAAATTGACAACAATGGCCATGTATCCGCAC  
 GTGACACAAGCTGACCTCAAGAGCTCCAGTTTTGGCTTCGAGCAAGTTTGGTGTACTGTTTTGCGAC  
 TTTTGGGCTTTGCTATGTACAAAGCATTATTGAAACAGCGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC239033 representing NM\_001288755  
 Red=Cloning site Green=Tags(s)

MSLVSEEFPEEVPRAEITIPADVTPERVPHIVDYSEAEQSDEQLHQEISQANVICIVYAVNNKHSID  
 KVTSRWIPLINERTDKDSRLPLILVGNKSDLVEYSSMETILPIMNQYTEIETCVECSAKNLKNISELFYY  
 AQKAVLHPTGPLYCPEEKEMKPACIKALTRIFKISDQDNDGTLNDAELNFFQRICFNTPLAPQALEVKN  
 VVRKHISDGVADSGTLKGFLLHFLFIQRGRHETTWTVLRFRFGYDDDLDTPEYLFPLKIPPDCTTEL  
 NHHAYLFLQSTFDKHLDRDCALSPDELKDLFKVFPYIPWGPVNNVTCTNERGWITYQGFLSQWLTITY  
 LDVQRCLEYLGYLGSILTEQESQASAVTVTRDKKIDLQKKQTRNVFRCNVIGVKNCGKSGVLQALLGR  
 NLMRQKKIREDHKSYYAINTVYVYGQEKYLLLDISESEFLTEAEIICDVVCLVYDVSNPKSFEYCARI  
 FKHQFMDSRIPCLIVAASDLHEVKQEYSISPTDFCRKHKMPPQAFCTCNTADAPSKDIFVKLTTMAMYPH  
 VTQADLKSSTFWLRASFGATVFAVLGFAMYKALLKQR

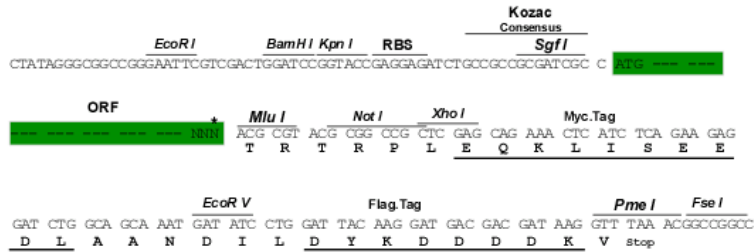
**TRTRP**LEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

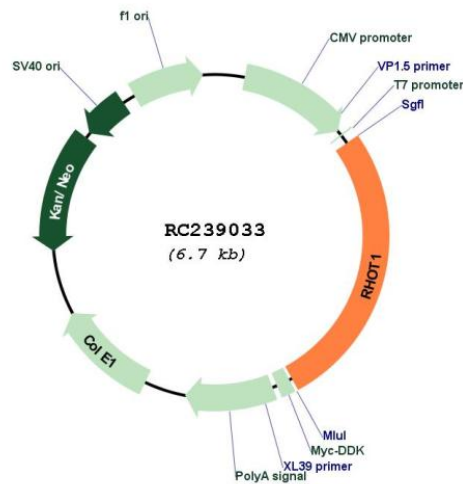
**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**Plasmid Map:**



ACCN: NM\_001288755

ORF Size: 1791 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_001288755.1</a> , <a href="#">NP_001275684.1</a>
<b>RefSeq Size:</b>	3136 bp
<b>RefSeq ORF:</b>	1794 bp
<b>Locus ID:</b>	55288
<b>UniProt ID:</b>	<a href="#">Q8IXI2</a>
<b>Cytogenetics:</b>	17q11.2
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	68.9 kDa
<b>Gene Summary:</b>	Mitochondrial GTPase involved in mitochondrial trafficking. Probably involved in control of anterograde transport of mitochondria and their subcellular distribution.[UniProtKB/Swiss-Prot Function]