

## Product datasheet for **RG209190**

### **MIRO1 (RHOT1) (NM\_018307) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MIRO1 (RHOT1) (NM_018307) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MIRO1
Synonyms:	ARHT1; MIRO-1; MIRO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209190 representing NM\_018307  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAAGAAAGACGTGCGGATCCTGCTGGTGGGAGAACCTAGAGTTGGGAAGACATCACTGATTATGTCTC  
 TGGTCAGTGAAGAATTTCCAGAAGAGGTTCTCCCGGGCAGAAGAAATCACCATTCCAGCTGATGTCAC  
 CCCAGAGAGAGTTCCAACACACATTGTAGATTACTCAGAAGCAGAACAGAGTGATGAACAACTTCATCAA  
 GAAATATCTCAGGCTAATGTCATCTGTATAGTGTATGCCGTTAACAAACAAGCATTCTATTGATAAGGTAA  
 CAAGTCGATGGATTCTCTCATAAATGAAAGAACAGACAAAGACAGCAGGCTGCCTTAATATTGGTTGG  
 GAACAAATCTGATCTGGTGAATATAGTAGTATGGAGACCATCCTTCTATTATGAACAGTATACAGAA  
 ATAGAAACCTGTGTGGAGTGTTCAGCGAAAAACCTGAAGAACATATCAGAGCTCTTTTATTACGCACAGA  
 AAGCTGTTCTTCATCCTACAGGGCCCTGTACTGCCAGAGGAGAAGGAGATGAAACCAGCTTGATAAA  
 AGCCCTTACTCGTATATTTAAAAATCTGATCAAGATAATGATGGTACTCTCAATGATGCTGAACCTAAC  
 TTCTTTACAGAGGATTTGTTTCAACACTCCATTAGCTCCTCAAGCTCTGGAGGATGTCAAGAATGTAGTCA  
 GAAAACATATAAGTGATGGTGTGGCTGACAGTGGGTTTACCCTGAAAGGTTTTCTTTTTACACACACT  
 TTTTATCCAGAGAGGGAGACACGAACTACTTGGACTGTGCTTCGACGATTTGGTTATGATGATGACCTG  
 GATTTGACACCTGAATATTTGTTCCCTCTGCTGAAAAACCTCCTGATTGCACTACTGAATTAATCATC  
 ATGCATATTTATTTCTCCAAAGCACCTTGACAAGCATGATTTGGATAGAGACTGTGCTTTGTCACCTGA  
 TGAGCTTAAAGGTTTATTTAAAGTTTTCCCTTACATACCTTGGGGCCAGATGTGAATAACACAGTTTGT  
 ACCAATGAAAGAGGCTGGATAACCTACCAGGGATTCCTTTCCAGTGGACGCTCAGCATTATTTAGATG  
 TACAGCGGTGCCGGAATATTTGGGCTATCTAGGCTATCAATATTGACTGAGCAAGAGTCTCAAGCTTC  
 AGCTGTTACAGTGACAAGAGATAAAAAAGATAGACCTGCAGAAAAACAACTCAAAGAAATGTGTTCAGA  
 TGTAAATGTAATTGGAGTAAAAACTGTGGGAAAAGTGGAGTTCCTCAGGCTCTTCTTGAAGAAACTTAA  
 TGAGGCAGAAGAAAATTCGTGAAGATCATAAATCCTACTATGCGATTAACACTGTTTATGTATATGGACA  
 AGAGAAAATACTTGTGTTGCATGATATCTCAGAATCGAATTTCTAACTGAAGCTGAAATCATTTGTGAT  
 GTTGTATGCCTGGTATATGATGTCAGCAATCCCAAATCCTTTGAATACTGTGCCAGGATTTTTAAGCAAC  
 ACTTTATGGACAGCAGAATACCTTGCTTAATCGTAGCTGCAAAGTCAGACCTGCATGAAGTTAAACAAGA  
 ATACAGTATTTACCTACTGATTTCTGCAGGAAACACAAAATGCCTCCACCACAAGCCTTCACTTGAAT  
 ACTGCTGATGCCCCAGTAAGGATATCTTTGTTAAATTGACAACAATGGCCATGTATCCGCACGTGACAC  
 AAGCTGACCTCAAGAGCTCCACGTTTTGGCTTCGAGCAAGTTTTGGTGCTACTGTTTTTGCAGTTTTGGG  
 CTTTGCTATGTACAAAGCATTATTGAAACAGCGA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG209190 representing NM\_018307  
 Red=Cloning site Green=Tags(s)

MKKDVRILLVGEPRVGKTSLIMSLVSEEFPEEVPRAEEITIPADVTPERVPTTHIVDYSEAEQSDEQLHQ  
 EISQANVICIVYAVNNKHSIDKVTSRWIPLINERTDKDSRLPLILVGNKSDLVEYSSMETILPIMNQYTE  
 IETCVECSAKNLKNISELFYQAQKAVLHPTGPLYCPEEKEMKPACIKALTRIFKISDQDNDGTLNDAELN  
 FFQRICFNTPLAPQALEDVKNVVRKHISDGVADSGFTLKGFLFLHFLFIQRGRHETTWTVLRFFGYDDDL  
 DLTPEYLFPLKIPPDCTTELNHHAYLFLQSTFDKHLDRDCALSPDELKGLFKVFPYIPWGPDVNNTVC  
 TNERGWITYQGFLSQWTLTTYLDVQRCLAYLGYLGYSILTEQESQASAVTVTRDKKIDLQKQQTQRNVFR  
 CNVIGVKNCGKSGVLQALLGRNLMRQKKIREDHKSYYAINTVYVYVYQEKYLLLDHDISESEFLTEAEIICD  
 VVCLVYDVSNPKSFEYCARIFKQHFMDSRIPCLIVAAKSDLHEVKQEYSISPTDFCRKHKMPPPQAFTCN  
 TADAPSKDIFVKLTMMAMYPHVTQADLKSSTFWLRASFGATVFAVLGFAMYKALLKQR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_018307

**ORF Size:** 1854 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\\_018307.3](#), [NP\\_060777.3](#)

**RefSeq Size:** 3089 bp

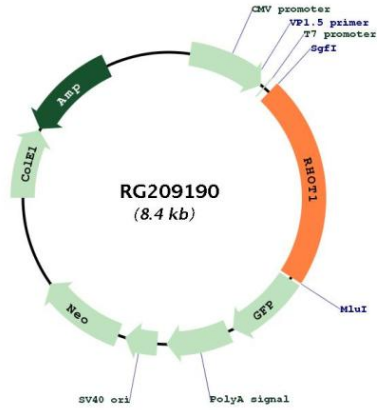
**RefSeq ORF:** 1857 bp

**Locus ID:** 55288

**UniProt ID:** [Q8IXI2](#)

**Cytogenetics:** 17q11.2  
**Domains:** EFh, RAS, RHO, RAB  
**Protein Families:** Transmembrane  
**Gene Summary:** Mitochondrial GTPase involved in mitochondrial trafficking. Probably involved in control of anterograde transport of mitochondria and their subcellular distribution.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG209190