

Product datasheet for **RG216260**

MIRO1 (RHOT1) (NM_001033566) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MIRO1 (RHOT1) (NM_001033566) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RHOT1
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:**

>RG216260 representing NM_001033566
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAAGACGTGCGGATCCTGCTGGTGGGAGAACCTAGAGTTGGAAGACATCACTGATTATGTCTC
 TGGTCAGTGAAGAATTTCCAGAAGAGGTTCTCCCGGGCAGAAGAAATCACCATTCCAGCTGATGTCAC
 CCCAGAGAGAGTTCCAACACACATTGTAGATTACTCAGAAGCAGAACAGAGTGATGAACAACCTCATCAA
 GAAATATCTCAGGCTAATGTCATCTGTATAGTGTATGCCGTTAACAACAAGCATTCTATTGATAAGGTAA
 CAAGTCGATGGATTCTCTCATAAATGAAAGAACAGACAAAGACAGCAGGCTGCCTTTAATATTGGTTGG
 GAACAAATCTGATCTGGTGAATATAGTAGTATGGAGACCATCCTTCTATTATGAACAGTATACAGAA
 ATAGAAACCTGTGTGGAGTGTTCAGCGAAAAACCTGAAGAACATATCAGAGCTCTTTTATTACGCACAGA
 AAGCTGTTCTTCATCCTACAGGGCCCTGTACTGCCAGAGGAGAAGGAGATGAAACCAGCTTGATAAA
 AGCCCTTACTCGTATATTTAAAAATCTGATCAAGATAATGATGGTACTCTCAATGATGCTGAACCTAAC
 TTCTTTACAGAGGATTTGTTTCAACACTCCATTAGCTCCTCAAGCTCTGGAGGATGTCAAGAATGTAGTCA
 GAAAACATATAAGTGATGGTGTGGCTGACAGTGGGTTGACCCTGAAAGGTTTTCTTTTTACACACACT
 TTTTATCCAGAGAGGGAGACACGAACTACTTGGACTGTGCTTCGACGATTTGGTTATGATGATGACCTG
 GATTTGACACCTGAATATTTGTTCCCTCTGCTGAAAATACCTCCTGATTGCACTACTGAATTAATCATC
 ATGCATATTTATTTCTCCAAAGCACCTTGACAAGCATGATTTGGATAGAGACTGTGCTTTGTCACCTGA
 TGAGCTTAAAGATTTATTTAAAGTTTTCCCTTACATACCTTGGGGCCAGATGTGAATAACACAGTTTGT
 ACCAATGAAAGAGGCTGGATAACCTACCAGGGATTCCTTTCCAGTGGACGCTCACGACTTATTTAGATG
 TACAGCGGTGCCGGAATATTTGGGCTATCTAGGCTATTCAATATTGACTGAGCAAGAGTCTCAAGCTTC
 AGCTGTTACAGTGACAAGAGATAAAAAGATAGACCTGCAGAAAAACAACTCAAAGAAATGTGTTGAGA
 TGTAAATGTAATTGGAGTGAAAACTGTGGGAAAAGTGGAGTTCCTCAGGCTCTTCTTGAAGAACTTAA
 TGAGGCAGAAGAAAATTCGTGAAGATCATAAATCCTACTATGCGATTAACACTGTTTATGTATATGGACA
 AGAGAAATACTTGTGTTGCATGATATCTCAGAATCGGAATTTCTAACTGAAGCTGAAATCATTGTGAT
 GTTGTATGCCTGGTATATGATGTCAGCAATCCCAAATCCTTTGAATACTGTGCCAGGATTTTAAAGCAAC
 ACTTTATGGACAGCAGAATACCTTGCTTAATCGTAGCTGCAAAGTCAGACCTGCATGAAGTTAAACAAGA
 ATACAGTATTTACCTACTGATTTCTGCAGGAAACACAAAATGCCTCCACCACAAGCCTTCACTTGCAAT
 ACTGCTGATGCCCCAGTAAGGATATCTTTGTTAAATTGACAACAATGGCCATGTATCCCCATGCCCGGT
 TACGCTGTATGTGACCTGCAACAGGTGTACATTTTGCATCTGTCAGAATTCCTCAACTCAGACTTGCT
 GCAATCTGTAAAGAACAAAATCTTCACTGCAGTCTTAAACAGGCAGTGACACAAGCTGACCTCAAGAGC
 TCCACGTTTTGGCTTCGAGCAAGTTTTGGTGCTACTGTTTTTGCAGTTTTGGGCTTTGCTATGTACAAAG
 CATTATTGAAACAGCGA

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG216260 representing NM_001033566
 Red=Cloning site Green=Tags(s)

MKKDVRILLVGEPRVGKTSLIMSLVSEEFPEEVPRAEEITIPADVTPERVPTTHIVDYSEAEQSDEQLHQ
 EISQANVICIVYAVNNKHSIDKVTSRWIPLINERTDKDSRLPLILVGNKSDLVEYSSMETILPIMNQYTE
 IETCVECSAKNLKNISELFYYAQKAVLHPTGPLYCPEEKEMKPACIKALTRIFKISDQDNDGTLNDAELN
 FFQRICFNTPLAPQALEDVKNVVRKHISDGVADSGTLKGFLLHFLFIQRGRHETTWTVLRFRFGYDDDL
 DLTPEYLFPLLKIPPDCTTELNHAYLFLQSTFDKHDLDRDCALSPDELKDLFKVFPYIPWGPDVNNTVC
 TNERGWITYQGFLLSQWTLTTYLDVQRCLLEYLGYLGYSILTEQESQASAVTVTRDKKIDLQKKQTRNVFR
 CNVIGVKNCGKSGVLQALLGRNLMRQKKIREDHKSYYAINTVYVYQGEKYLLLDISESEFLTEAEIICD
 VVCLVYVDSNPKSFEYCARIKQHFMSRIPCLIVAASDLHEVKQEYSISPTDFCRKHKMPPPQAFTCN
 TADAPSKDIFVKLTTMAMYPHARLCMCTCNRCTFCICQNFLNSDLLQSVKNKIFTAVLNRHVTQADLKS
 STFWLRASFGATVFAVLGFAMYKALLKQR

TRTRPLE - GFP Tag - V

Restriction Sites:

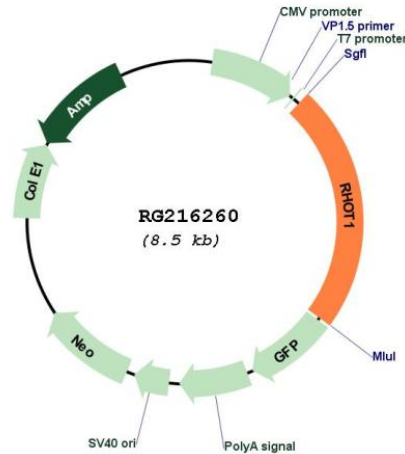
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001033566

ORF Size: 1977 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_001033566.2](#), [NP_001028738.1](#)

RefSeq Size:	3213 bp
RefSeq ORF:	1980 bp
Locus ID:	55288
UniProt ID:	Q8IXI2
Cytogenetics:	17q11.2
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]