

Product datasheet for **MG224933**

Rhot1 (NM_001163355) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rhot1 (NM_001163355) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rhot1
Synonyms:	2210403N23Rik; AA415293; AF244542; AI834919; Arht1; C430039G08Rik; Miro1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG224933 representing NM_001163355
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGTGGCGGCCGAGTGGCGCCCTGCGAGCCTCCGACATGAAGAAAGACGTGAGGATCCTGCTGGTGG
 GAGAACCCTCGAGTTGGGAAGACATCACTGATTATGTCGCTGGTCAGTGAAGAATTTCCGGAAGAGGTTCC
 TCCCCGAGCAGAAGAAATCACCATTCCAGCTGACGTCAACCCCTGAAAGAGTTCCAACACACATTGTCGAT
 TATTCAGAAGCAGAACAGAGTGATGAACAACCTTCATCAAGAAATATCACAGGCTAATGTTATCTGCATAG
 TTTATGCTGTTAAACAACAAACATTCTATTGATAAGGTAACAAGCCGATGGATTCTCTCATAAATGAAAG
 AACAGACAAAGACAGCAGGCTGCCTTTGATATTGGTTGGGAACAAATCTGATCTGGTGGAAATATAGTAGT
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 ACCTAAAGAATATCTCAGAGCTGTTTTATTATGCACAGAAAGCTGTTCTTCATCTACAGGGCCTCTATA
 CTGCCAGAGGAGAAAGAGATGAAACCGGCTTGTATAAAGGCCCTCACTCGTATATTTAAAAATATCTGAT
 CAGGATAACGACGGCACTCTGAATGATGCTGAGCTCAACTTCTCCAGAGAATTTGTTTCAACACTCCTT
 TAGCTCCGCAAGCGCTGGAAGATGTCAAGAATGTGGTTAGAAAGCACTTAAGTGACGGTGTGGCTGACAG
 TGGGCTGACGCTCAGAGGTTTTCTTTTTACATACACTTTTTATCCAGAGGGGGAGGCATGAGACTACT
 TGGACTGTGCTTCGACGATTTGGTTATGACGATGACCTGGACCTGACGCCTGAGTATTTATCCCCCTGC
 TAAAAATACCTCCTGATTGCACTACTGAATTAATCATCATGCATATTTGTTTCTCCAGAGCACCTTTGA
 CAAACATGATTTGGACAGAGACTGTGCTTTGTGCGCTGATGAACTTAAAGATTTATTTCAAGTTTTCT
 TACATACCTTGGGACCAGATGTAATAACACAGTTTGCACAAATGAAAGAGGCTGGATAACCTACCAGG
 GGTTCTCTCCAGTGGACGCTCACCACCTACTTAGATGTGCAGGTTGCCTGGAGTATTTGGGATATCT
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 GAGTCGGAATTTCTAACTGAGGCTGAGACCATTTGTGATGTTGTATGCCTGGTATATGATGTCACCAATC
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 TGTAGCTGCAAAGTCAGACCTGCATGAAGTCAAACAGGAACATAGCATCTCACCTACTGATTTCTGCAGG
 AAACACAAAATGCCTCCACCTCAAGCCTCACTTGCAATACTGCTGATGCCCCCAGTAAGGATATCTTTG
 TTAAGTTGACAACAATGGCCATGTACCCCATGCCCGTTACGCTGCATGTGCACCTGCAACAGGTGTAC
 ATTTTGATCTGTGCAAACTTCTCAACTCAGACTTGCTGCAATCTGTAAGAACAATACTTCACTGCA
 GTTCTTAACAGGCACGTGACACAAGCTGACCTCAAGAGCTCAACGTTCTGGCTTCGCGCAAGCTTTGGTG
 CTACGGTCTTTGCAGTCGTGGGCTTTGCTATGTACAGAGCACTACTGAAACAGCGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG224933 representing NM_001163355
 Red=Cloning site Green=Tags(s)

MRAGRVRPLRASDMKKDVRILLVGEPRVGKTSLIMSLVSEEFPEEVPPRAEEITIPADVTPERVPTIIVD
 YSEAEQSDQLHQEISQANVICIYVAVNNKHSIDKVTSRWIPLINERTDKDSRLPLILVGNKSDLVEYSS
 METILPIMNQYTEIETCVECSAKNLKNISELFYYAQKAVLHPTGPLYCPEEKEMKPACIKALTRIFKISD
 QDNDGTLNDAELNFFQRICFNTPLAPQALEDKVNVVRKHLSDGVADSGLTLRGFLFLHTLFIQRGRHETT
 WTVLRRFGYDDDLDTPEYLFPLLKIPPDCTTELNHHAYLFLQSTFDKHDLDRCALSPDELKDLFQVFP
 YIPWGPVDVNTVCTNERGWITYQGFLSQWTLTTYLDVQRCLEYLGYLGYSILTEQESQASAITVTRDKKI
 DLQKKQTQRNVFRCNVIGVKGCGKTGVLQSLGRNLMRQKKIRDDHKSYYAINTVYVYGQEKYLLLDHDS
 ESEFLTEAETICDVVCLYVDVTNPKSFYECARIFKQHFMDSRIPCLIVAASDLHEVKQEHSISPTDFCR
 KHKMPPQAFTCNTADAPSKDIFVKLTMMYPHARLCMCTCNRCTFCICQNFLNSDLLQSVKNIKIFTA
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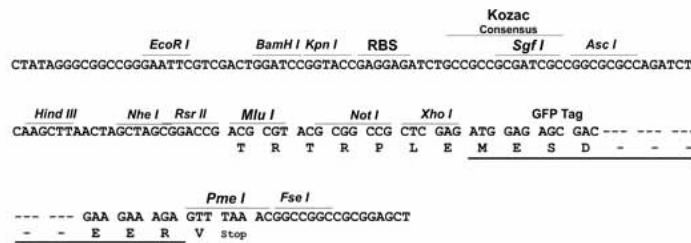
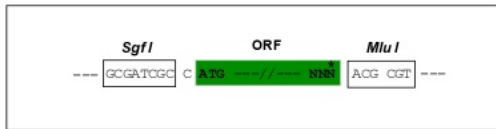
TRTRPLE - GFP Tag - V

Restriction Sites:

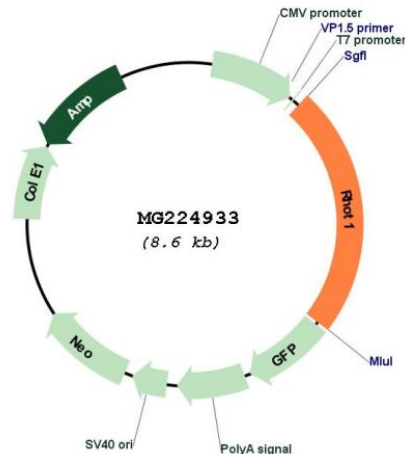
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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

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]