**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for RG221212

## MRTFA (NM_020831) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | MRTFA (NM_020831) Human Tagged ORF Clone |
| **Tag:** | TurboGFP |
| **Symbol:** | MRTFA |
| **Synonyms:** | BSAC; MAL; MKL; MKL1; MRTF-A |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-GFP (PS100010) |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

View online »

**ORF Nucleotide Sequence:**

>RG221212 representing NM_020831
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGCCTTTGAAAAGTCCAGCCGCATTTCATGAGCAGAGAAGGAGCTTGGAGCGGGCCAGGACAGAGG
ACTATCTCAAACGGAAGATTCGTTCCCGGCCGGAGAGATCGGAGCTGGTCAGGATGCACATTTTGGAAGA
GACCTCGGCTGAGCCATCCCTCCAGGCCAAGCAGCTGAAGCTGAAGAGAGCCAGACTAGCCGATGACCTC
AATGAGAAGATTGCACAGAGGCCTGGCCCCATGGAGCTGGTGGAGAAGAACATCCTTCCTGTTGAGTCCA
GCCTGAAGGAAGCCATCATTGTGGGCCAGGTGAACTATCCCAAAGTAGCAGACAGCTCTTCCTTCGATGA
GGACAGCAGCGATGCCTTATCCCCCGAGCAGCCTGCCAGCCATGAGTCCCAGGGTTCTGTGCCGTCACCC
CTGGAGGCCCGAGTCAGCGAACCACTGCTCAGTGCCACCTCTGCATCCCCCACCCAGGTTGTGTCTCAAC
TTCCGATGGGCCGGGATTCCAGAGAAATGCTTTTCCTGGCAGAGCAGCCTCCTCTGCCTCCCCCACCTCT
GCTGCCTCCCAGCCTCACCAATGGAACCACTATCCCCACTGCCAAGTCCACCCCCACACTCATTAAGCAA
AGCCAACCCAAGTCTGCCAGTGAGAAGTCACAGCGCAGCAAGAAGGCCAAGGAGCTGAAGCCAAAGGTGA
AGAAGCTCAAGTACCACCAGTACATCCCCCCGGACCAGAAGCAGGACAGGGGGGCACCCCCCATGGACTC
ATCCTACGCCAAGATCCTGCAGCAGCAGCAGCTCTTCCTCCAGCTGCAGATCCTCAACCAGCAGCAGCAG
CAGCACCACAACTACCAGGCCATCCTGCCTGCCCCGCCAAAGTCAGCAGGCGAGGCCCTGGGAAGCAGCG
GGACCCCCCCAGTACGCAGCCTCTCCACTACCAATAGCAGCTCCAGCTCGGGCGCCCCTGGGCCCTGTGG
GCTGGCACGTCAGAACAGCACCTCACTGACTGGCAAGCCGGGAGCCCTGCCGGCCAACCTGGACGACATG
AAGGTGGCAGAGCTGAAGCAGGAGCTGAAGTTGCGATCACTGCCTGTCTCGGGCACCAAAACTGAGCTGA
TTGAGCGCCTTCGAGCCTATCAAGACCAAATCAGCCCTGTGCCAGGAGCCCCCAAGGCCCCTGCCGCCAC
CTCTATCCTGCACAAGGCTGGCGAGGTGGTGGTAGCCTTCCCAGCGGCCCGGCTGAGCACGGGGCCAGCC
CTGGTGGCAGCAGGCCTGGCTCCAGCTGAGGTGGTGGTGGCCACGGTGGCCAGCAGTGGGGTGGTGAAGT
TTGGCAGCACGGGCTCCACGCCCCCCGTGTCTCCCACCCCCTCGGAGCGCTCACTGCTCAGCACGGGCGA
TGAAAACTCCACCCCCGGGGACACCTTTGGTGAGATGGTGACATCACCTCTGACGCAGCTGACCCTGCAG
GCCTCGCCACTGCAGATCCTCGTGAAGGAGGAGGGCCCCCGGGCCGGGTCCTGTTGCCTGAGCCCTGGGG
GGCGGGCGGAGCTAGAGGGGCGCGACAAGGACCAGATGCTGCAGGAGAAAGACAAGCAGATCGAGGCGCT
GACGCGCATGCTCCGGCAGAAGCAGCAGCTGGTGGAGCGGCTCAAGCTGCAGCTGGAGCAGGAGAAGCGA
GCCCAGCAGCCCGCCCCCGCCCCCGCCCCCCTCGGCACCCCCGTGAAGCAGGAGAACAGCTTCTCCAGCT
GCCAGCTGAGCCAGCAGCCCCTGGGCCCCGCTCACCCATTCAACCCCAGCCTGGCGGCCCCAGCCACCAA
CCACATAGACCCTTGTGCTGTGGCCCCGGGGCCCCCGTCCGTGGTGGTGAAGCAGGAAGCCTTGCAGCCT
GAGCCCGAGCCGGTCCCCGCCCCCCAGTTGCTTCTGGGGCCTCAGGGCCCCAGCCTCATCAAGGGGGTTG
CACCTCCCACCCTCATCACCGACTCCACAGGGACCCACCTTGTCCTCACCGTGACCAATAAGAATGCAGA
CAGCCCTGGCCTGTCCAGTGGGAGCCCCCAGCAGCCCTCGTCCCAGCCTGGCTCTCCAGCGCCTGCCCCC
TCTGCCCAGATGGACCTGGAGCACCCACTGCAGCCCCTCTTTGGGACCCCCACTTCTCTGCTGAAGAAGG
AACCACCTGGCTATGAGGAAGCCATGAGCCAGCAGCCCAAACAGCAGGAAAATGGTTCCTCAAGCCAGCA
GATGGACGACCTGTTTGACATTCTCATTCAGAGCGGAGAAATTTCAGCAGATTTCAAGGAGCCGCCATCC
CTGCCAGGGAAGGAGAAGCCATCCCCGAAGACAGTCTGTGGGTCCCCCCTGGCAGCACAGCCATCACCTT
CTGCTGAGCTCCCCCAGGCTGCCCCACCTCCTCCAGGCTCACCCTCCCTCCCTGGACGCCTGGAGGACTT
CCTGGAGAGCAGCACGGGGCTGCCCCTGCTGACCAGTGGGCATGACGGGCCAGAGCCCCTTTCCCTCATT
GACGACCTCCATAGCCAGATGCTGAGCAGCACTGCCATCCTGGACCACCCCCCGTCACCCATGGACACCT
CGGAATTGCACTTTGTTCCTGAGCCCAGCAGCACCATGGGCCTGGACCTGGCTGATGGCCACCTGGACAG
CATGGACTGGCTGGAGCTGTCGTCAGGTGGTCCCGTGCTGAGCCTAGCCCCCCTCAGCACCACAGCCCCC
AGCCTCTTCTCCACAGACTTCCTCGATGGCCATGATTTGCAGCTGCACTGGGATTCCTGCTTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

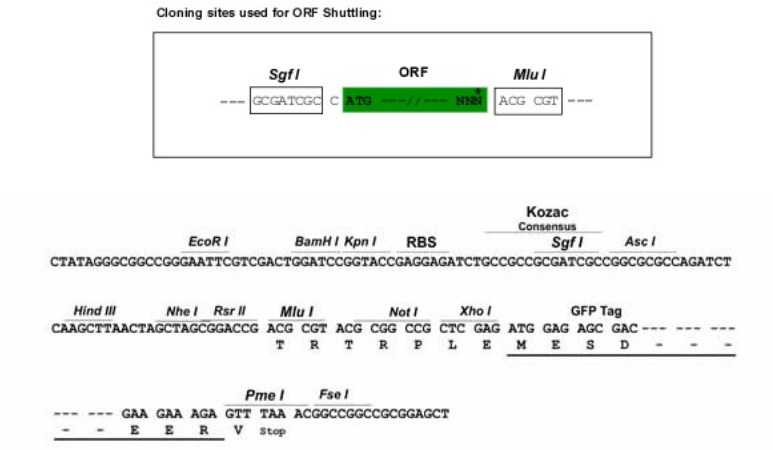
>RG221212 representing NM_020831
Red=Cloning site Green=Tags(s)

MPPLKSPAAFHEQRRSLERARTEDYLKRKIRSRPERSELVRMHILEETSAEPSLQAKQLKLKRARLADDL
NEKIAQRPGPMELVEKNILPVESSLKEAIIVGQVNYPKVADSSSFDEDSSDALSPEQPASHESQGSVPSP
LEARVSEPLLSATSASPTQVVSQLPMGRDSREMLFLAEQPPLPPPPLLPPSLTNGTTIPTAKSTPTLIKQ
SQPKSASEKSQRSKKAKELKPKVKKLKYHQYIPPDQKQDRGAPPMDSSYAKILQQQQLFLQLQILNQQQQ
QHHNYQAILPAPPKSAGEALGSSGTPPVRSLSTTNSSSSSGAPGPCGLARQNSTSLTGKPGALPANLDDM
KVAELKQELKLRSLPVSGTKTELIERLRAYQDQISPVPGAPKAPAATSILHKAGEVVVAFPAARLSTGPA
LVAAGLAPAEVVVATVASSGVVKFGSTGSTPPVSPTPSERSLLSTGDENSTPGDTFGEMVTSPLTQLTLQ
ASPLQILVKEEGPRAGSCCLSPGGRAELEGRDKDQMLQEKDKQIEALTRMLRQKQQLVERLKLQLEQEKR
AQQPAPAPAPLGTPVKQENSFSSCQLSQQPLGPAHPFNPSLAAPATNHIDPCAVAPGPPSVVVKQEALQP
EPEPVPAPQLLLGPQGPSLIKGVAPPTLITDSTGTHLVLTVTNKNADSPGLSSGSPQQPSSQPGSPAPAP
SAQMDLEHPLQPLFGTPTSLLKKEPPGYEEAMSQQPKQQENGSSSQQMDDLFDILIQSGEISADFKEPPS
LPGKEKPSPKTVCGSPLAAQPSPSAELPQAAPPPPGSPSLPGRLEDFLESSTGLPLLTSGHDGPEPLSLI
DDLHSQMLSSTAILDHPPSPMDTSELHFVPEPSSTMGLDLADGHLDSMDWLELSSGGPVLSLAPLSTTAP
SLFSTDFLDGHDLQLHWDSCL

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

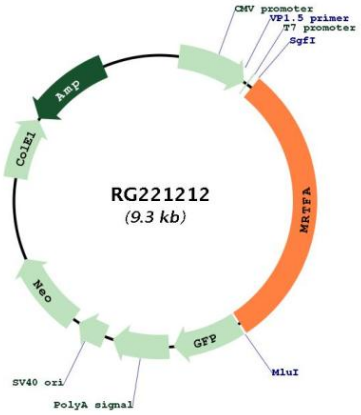
**Cloning Scheme:**




**ACCN:** NM_020831

| | |
|---|---|
| **ORF Size:** | 2793 bp |
| **OTI Disclaimer:** | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.<br><br>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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_020831.4, NP_065882.1 |
| **RefSeq Size:** | 4507 bp |
| **RefSeq ORF:** | 3096 bp |
| **Locus ID:** | 57591 |
| **UniProt ID:** | Q969V6 |
| **Cytogenetics:** | 22q13.1-q13.2 |
| **Domains:** | SAP, RPEL |
| **Protein Families:** | Transcription Factors |
| **Gene Summary:** | The protein encoded by this gene interacts with the transcription factor myocardin, a key regulator of smooth muscle cell differentiation. The encoded protein is predominantly nuclear and may help transduce signals from the cytoskeleton to the nucleus. This gene is involved in a specific translocation event that creates a fusion of this gene and the RNA-binding motif protein-15 gene. This translocation has been associated with acute megakaryocytic leukemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013] |

## Product images:




Circular map for RG221212