

Product datasheet for **RC221212**

MRTFA (NM_020831) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRTFA (NM_020831) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRTFA
Synonyms:	BSAC; MAL; MKL; MKL1; MRTF-A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221212 representing NM_020831
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCGCCTTTGAAAAGTCCAGCCGCATTTTCATGAGCAGAGAAGGAGCTTGGAGCGGCCAGGACAGAGG
 ACTATCTCAAACGAAGATTTCGTTCCCGCCGGAGAGATCGGAGCTGGTCAGGATGCACATTTTGAAGA
 GACCTCGGCTGAGCCATCCCTCCAGGCCAAGCAGCTGAAGCTGAAGAGAGCCAGACTAGCCGATGACCTC
 AATGAGAAGATTGCACAGAGGCCTGGCCCCATGGAGCTGGTGGAGAAGAACATCCTTCTGTTGAGTCCA
 GCCTGAAGGAAGCCATCATTGTGGGCCAGGTGAACTATCCCAAAGTAGCAGACAGCTTCTCTTCGATGA
 GGACAGCAGCGATGCCTTATCCCCGAGCAGCCTGCCAGCCATGAGTCCCAGGGTTCTGTGCCGTCACCC
 CTGGAGGCCCGAGTCAGCGAACCCTGCTCAGTCCACCTCTGCATCCCCACCCAGGTTGTGTCTCAAC
 TTCGATGGGCCGGGATTCCAGAGAAATGCTTTTCTGGCAGAGCAGCCTCCTCTGCCTCCCCACCTCT
 GCTGCCTCCAGCCTACCAATGGAACCACTATCCCCACTGCCAAGTCCACCCCACTCATTAAAGCAA
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 AGAAGTCAAGTACCACAGTACATCCCCCGGACCAGAAAGCAGGACAGGGGGCACCCCCATGGACTC
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 CAGCACCACAACCTACCAGGCCATCCTGCCTGCCCGCCAAAGTCAAGCAGGCGAGGCCCTGGGAAGCAGCG
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 GCCAGCTGAGCCAGCAGCCCTGGGCCCGCTCACCCATTCAACCCAGCCTGGCGGCCAGCCACCAA
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 GAGCCCGAGCCGGTCCCCGCCCCAGTTGCTTCTGGGGCCTCAGGGCCCCAGCCTCATCAAGGGGGTTG
 CACCTCCCACCCTCATCACCGACTCCACAGGGACCCACCTTGTCTCACCGTGACCAATAAGAATGCAGA
 CAGCCCTGGCCTGTCCAGTGGGAGCCCCAGCAGCCCTCGTCCCAGCCTGGCTCTCCAGCGCCTGCCCC
 TCTGCCAGATGGACCTGGAGCACCCACTGCAGCCCTCTTTGGGACCCCACTTCTCTGCTGAAGAAGG
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 AGCCTCTTCTCCACAGACTTCTCGATGGCCATGATTTGCAGCTGCACTGGGATTCTGCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221212 representing NM_020831
 Red=Cloning site Green=Tags(s)

MPPLKSPAAFHEQRRSLERARTEDYLKRKIRSRPERSELVRMHILEETSAEPSLQAKQLKLRARLADDL
 NEKIAQRPGMELVEKNILPVESSLKEAIIVGQVNYPKVADSSSFDESDSDALSPEQPASHESQGSVPS
 LEARVSEPLL SATSASPTQVVSQPLMGRDSREMLFLAEQPPLPPPPLPPSLTNGTTIPTAKSTPTLIKQ
 SQPKSASEKSQRSKKAKELKPKVKLKYHQYIPPDQKQDRGAPPMDSYAKILQQQLFLQLQILNQQQQ
 QHHNYQAILPAPPKSAGEALGSSGTPPVRSLSSTNSSSSGAPGPCGLARQNSTSLTGKPGALPANLDDM
 KVAELKQELKLRSLPVSGTKTELIERLRAYQDQISPVPGAPKAPAATSILHKAGEVVVAFPAARLSTGPA
 LVAAGLAPAEVVVATVASSGVVFKGSTGTPPVSPTPSERSLLSTGDENSTPGDTFGEMVTSPLTQLTLQ
 ASPLQILVKEEGPRAGSCLSPGGRAELEGRDKDQMLQEKDKQIEALTRMLRQKQQLVERLKLQLEQEK
 AQQPAPAPAPLGTVPKQENSFSSCQLSQQLGPAHPFNPSLAAPATNHIDPCAVAPGPPSVVVKQEQALQP
 EPEPVPAPQLLLGPQPSLIGVAPPTLITDSTGTHLVLTVTNNADSPGLSSGSPQQPSSQPGSPAPAP
 SAQMDLEHPLQPLFGTPTSLKKKEPPGYEAMSSQPKQEQENGSSSQMDDLFDILIQSGEISADFKEPPS
 LPGKEKPSPKTVCGSPLAAQPSPAELQAAPPPGSPSLPGRLEDFLESSTGLPLLTSGHDGPEPLSLI
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 SLFSTDFLDGHDQLHWDSC

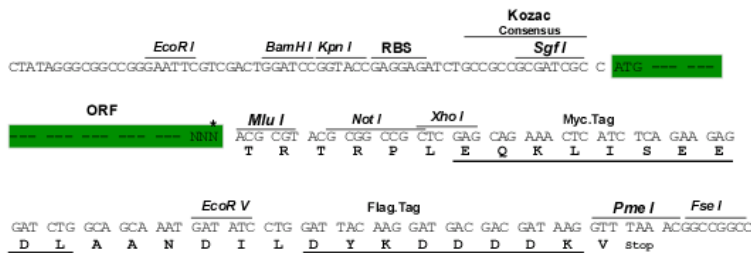
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8043_c07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

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.

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_020831.4](#), [NP_065882.1](#)

RefSeq Size: 4507 bp

RefSeq ORF: 3096 bp

Locus ID: 57591

UniProt ID: [Q969V6](#)

Cytogenetics: 22q13.1-q13.2

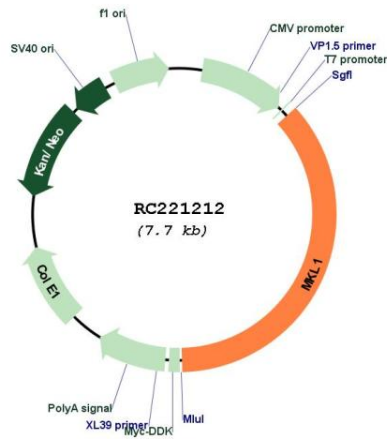
Domains: SAP, RPEL

Protein Families: Transcription Factors

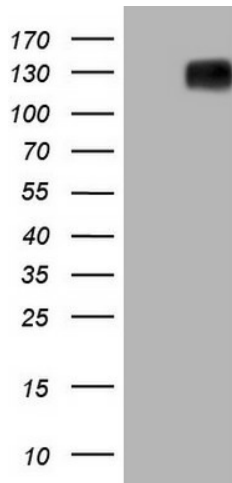
MW: 98.7 kDa

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 RC221212



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MKL1 (Cat# RC221212, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MKL1 (Cat# [TA805226]).