

Product datasheet for **RC230133**

MITF (NM_001184967) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MITF (NM_001184967) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MITF
Synonyms:	bHLHe32; CMM8; COMMAD; MI; WS2; WS2A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230133 representing NM_001184967
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACATCACGCATCTTGCTACGCCAGCAACTCATGCGTGAGCAGATGCAGGAGCAGGAGCGCAGGGAGC
 AGCAGCAGAAGCTGCAGGCGGCCAGTTTTCATGCAACAGAGAGTGCCCGTAGTCAGACACCAGCCATAAA
 CGTCAGTGTGCCACCACCCCTTCCCTCTGCCACGCAGGTGCCGATGGAAGTCCTTAAGGTGCAGACCCAC
 CTCGAAAACCCACCAAGTACCACATACAGCAAGCCCAACGCAGCAGGTAAAGCAGTACCTTTCTACCA
 CTTTAGCAATAAACATGCCAACCAAGTCTGAGCTTGCCATGTCCAAACCAGCCTGGCGATCATGTCAT
 GCCACCGGTGCCGGGAGCAGCGCACCCCAACAGCCCCATGGCTATGCTTACGCTTAACTCCAACGTGAA
 AAAGAGGGATTTATAAGTTTGAAGAGCAAAACAGGGCAGAGAGCGAGTGCCAGGCATGAACACACATT
 CACGAGCGTCCTGTATGCAGATGGATGATGTAATCGATGACATCATTAGCCTAGAATCAAGTTATAATGA
 GGAATCTTGGGCTTGATGGATCCTGCTTGGCAAATGGCAAATACGTTGCCTGTCTCGGGAAACTTGATT
 GATCTTTATGAAACCAAGGTCTGCCCCACCAGGCCTACCATCAGCAACTCCTGTCCAGCCAACCTTC
 CCAACATAAAAAGGGAGCTCACAGAGTCTGAAGCAAGAGCACTGGCCAAAAGAGAGGCAGAAAAAGGACAA
 TCACAACCTGATTGAACGAAGAAGAAGATTTAACATAAATGACCGCATTAAAGAAGTACTTTGATT
 CCCAAGTCAAAATGATCCAGACATGCGCTGGAACAAGGGAACCATTTAAAAGCATCCGTGGACTATATCC
 GAAAGTTGCAACGAGAACAGCAACGCGCAAAAGAACTTGAACCAGCAGAGAAGAACTGGAGCACGCCAA
 CCGGCAATTTGTTGCTCAGAATACAGGAACCTTGAATGCAGGCTCGAGCTCATGGACTTCCCTTATTCCA
 TCCACGGTCTCTGCTCCAGATTTGGTGAATCGGATCATCAAGCAAGAACCCGTTCTTGAGAAGTCA
 GCCAAGACCTCCTCAGCATCATGCAGACCTAACCTGTACAACAACTCTGATCTCACGGATGGCACCAT
 CACCTTCAACAACAACCTCGGAACCTGGGACTGAGGCCAACAAGCCTATAGTGTCCCCACAAAAATGGGA
 TCCAAACTGGAAGACATCCTGATGGACGACCCCTTTCTCCCGTCCGGTGTCACTGATCCACTCCTTCTC
 CAGTGTCCCCGGAGCTTCCAAAACAAGCAGCCGGAGGAGCAGTATGAGCATGGAAGAGACGGAGCACAC
 TTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230133 representing NM_001184967
 Red=Cloning site Green=Tags(s)

MTSRILLRQQLMREQMQEERREQQQLQAAQFMQQRVPSQTPAINVSVPTTLPSTQVPMEVKLVQTH
 LENPTKYHIQQAQRQVKQYLSTTLANKHANQVLSLPCPNQPGDHVMPVPGSSAPNSPMAMLTLNSNCE
 KEGFYKFEEQNRAESECPMNTHSRASCMQMDVIDDIISLESSYNEEILGLMDPALQMANTLPVSGNLI
 DLYGNQGLPPPGLTISNSCPANLPNIKRELTESEARALAKERQKKNHNLIERRRRFNINDRIKELGTLI
 PKSNPDPMRWKGTILKASVDYIRKLRQEQRAKELENRQKLEHANRHLRLRIQELEMQARAHGLSLIP
 STGLCSPDLVNRRIKQEPVLENCSDLLQHHADLTCTTTLDLTDGTITFNNNLGTGEANQAYSVPKMG
 SKLEDILMDDTLSPVGVTDPLLSVSPGASKTSSRRSSMSMEETEHTC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

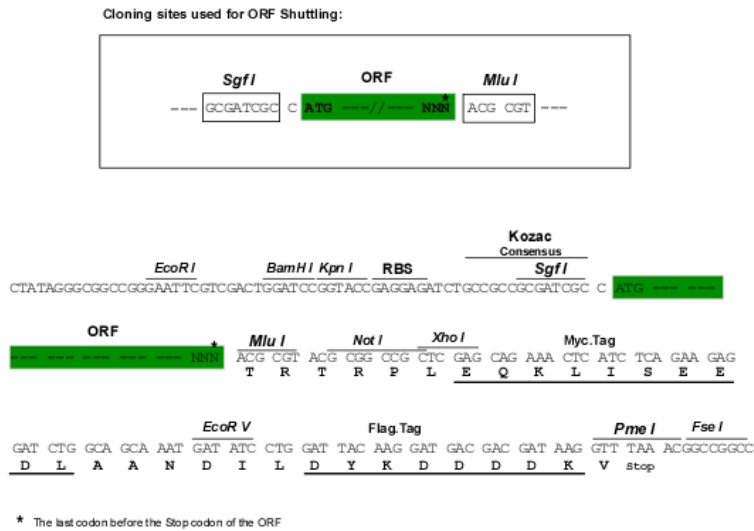
Chromatograms:

https://cdn.origene.com/chromatograms/mk8062_a03.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001184967

ORF Size: 1404 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_001184967.2](#)

RefSeq ORF: 1407 bp

Locus ID: 4286

UniProt ID: [O75030](#)

Cytogenetics: 3p13

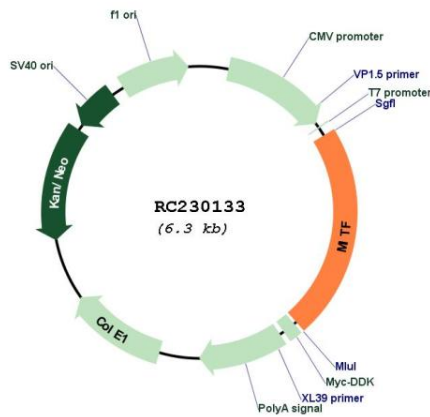
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Melanogenesis, Melanoma, Pathways in cancer

MW: 53 kDa

Gene Summary: The protein encoded by this gene is a transcription factor that contains both basic helix-loop-helix and leucine zipper structural features. The encoded protein regulates melanocyte development and is responsible for pigment cell-specific transcription of the melanogenesis enzyme genes. Heterozygous mutations in the this gene cause auditory-pigmentary syndromes, such as Waardenburg syndrome type 2 and Tietz syndrome. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RC230133