

Product datasheet for **RC211586**

MITF (NM_198177) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MITF (NM_198177) 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:

>RC211586 representing NM_198177
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGCGCTTAGAGTTCAGATGTTTCATGCCATGCTCCTTTGAAAGCTTGATCTCAGTCCGCCGAGC
 ATCCTGGGGCCTCAAGCCTCCGATAAGCTCCTCCAGTATGACATCACGCATCTTGCTACGCCAGCAACT
 CATGCGTGAGCAGATGCAGGAGCAGGAGCGCAGGGAGCAGCAGCAGAAGCTGCAGCGGCCAGTTCATG
 CAACAGAGAGTGCCCGTGAGTCAGACACCAGCCATAAACGTCAGTGTGCCACCACCCTTCCCTCTGCCA
 CGCAGGTGCCGATGGAAGTCCTAAGGTGCAGACCCACCTCGAAAACCCACCAAGTACCACATACAGCA
 AGCCCAACGGCAGCAGGTAAAGCAGTACCTTTCTACCACCTTAGCAAATAAACATGCCAACCAAGTCTG
 AGCTTGCCATGTCAAACCAGCCTGGCGATCATGTGCATGCCACCGGTGCCGGGAGCAGCGCACCCAACA
 GCCCATGGCTATGCTTACGCTTAACTCCAAGTGTAAAAAGAGGGATTTTATAAGTTTGAAGAGCAAAA
 CAGGGCAGAGAGCGAGTCCCAGGCATGAACACACATTCAGAGCGTCTGTATGCAGATGGATGATGTA
 ATCGATGACATCATTAGCCTAGAATCAAGTTATAATGAGGAAATCTTGGGCTTGATGGATCCTGCTTTGC
 AAATGGCAAATACGTTGCTGTCTCGGGAACTTGATTGATCTTTATGGAACCAAGGTCTGCCCCACC
 AGGCTCACCATCAGCAACTCCTGTCCAGCCAACCTTCCAACATAAAAAGGGAGCTCACAGAGTCTGAA
 GCAAGAGCACTGGCCAAAGAGAGGCAGAAAAAGGACAATCACAACCTGATTGAACGAAGAAGAAGATTTA
 ACATAATGACCGCATTAAAGAAGTACTTTGATTCCAAGTCAAATGATCCAGACATGCGCTGGAA
 CAAGGGAACCATCTTAAAGCATCCGTGGACTATATCCGAAAGTTGCAACGAGAACAGCAACCGCAAAA
 GAACCTGAAAACCGACAGAAGAACTGGAGCACGCCAACCGGCATTTGTTGCTCAGAATACAGGAATG
 AAATGCAGGCTCGAGTCATGGACTTTCCCTTATCCATCCACGGGTCTGCTCTCCAGATTTGGTGAA
 TCGGATCATCAAGCAAGAACCCTTCTTGAGAACTGCAGCCAAGACCTCCTTCAGCATCATGCAGACCTA
 ACCTGTACAACAACCTCTCGATCTCACGGATGGCACCATCACCTTCAACAACAACCTCGGAACTGGGACTG
 AGGCCAACCAAGCCTATAGTGTCCCCACAAAAATGGGATCCAACTGGAAGACATCCTGATGGACGACAC
 CCTTTCTCCCGTCCGTGTCAGTATCCACTCCTTTCTCAGTGTCCCGGAGCTTCAAAAACAAGCAGC
 CGGAGGAGCAGTATGAGCATGGAAGAGACGGAGCACACTTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211586 representing NM_198177
 Red=Cloning site Green=Tags(s)

MEALRVQMFMPSCFESLYLSSAEHPGASKPPISSSSMSTRILLRQQLMREQMQEQRERREQQKLQAAQFM
 QQRVPVSQTPAINVSVPTLPSATQVPMVVKVQTHLENPTKYHIQQAQRQVQKQYLSTTLANKHANQVL
 SLPCPNQPGDHVMPVPGSSAPNSPMAMTLNSNCEKEGFYKFEEQNRAESECPGMNTHSRASCMQDDV
 IDDIISLESSYNEEILGLMDPALQMANTLPVSGNLDLYGNQGLPPPGLTISNSCPANLPNIKRELTESE
 ARALAKERQKKNHNLIERRRFNINDRIKELGTLIPKSNPDMRWKGTILKASVDYIRKLRREQQRAK
 ELENRQKLEHANRHLRLRIQELEMQARAHGLSLIPSTGLCSPDLVNRIKQEPVLENCSDLLQHHADL
 TCTTTLDLTDGTFNNLGTGTEANQAYSVPTKMGSKLEDILMDDTLSPVGVTDPLLSSVSPGASKTSS
 RRSSMSMEETEHTC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

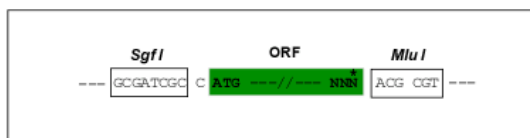
https://cdn.origene.com/chromatograms/mk8063_h11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_198177

ORF Size: 1512 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_198177.3](#)
RefSeq Size: 4624 bp

RefSeq ORF: 1515 bp

Locus ID: 4286

UniProt ID: [O75030](#)
Cytogenetics: 3p13

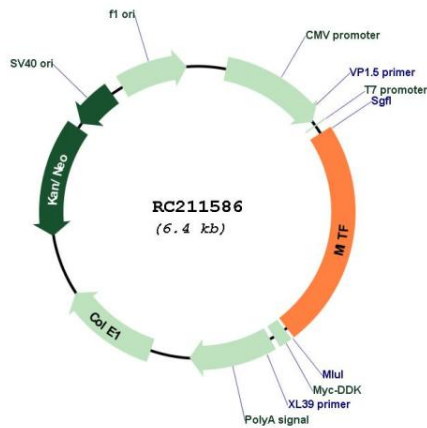
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Melanogenesis, Melanoma, Pathways in cancer

MW: 56.2 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 RC211586