

## Product datasheet for RC206557

### MITF (NM\_198158) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MITF (NM_198158) 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)
ORF Nucleotide Sequence:	>RC206557 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGGAATGCTAGAATATAATCACTATCAGGTGCAGACCCACCTCGAAAACCCACCAAGTACCACA  
TACAGCAAGCCCAACGGCAGCAGGTAAGCAGTACCTTTCTACCCTTTAGCAAATAACATGCCAACCA  
AGTCCTGAGCTTGCCATGTCCAAACCAGCCTGGCGATCATGTATGCCACCGGTGCCGGGAGCAGCGCA  
CCCAACAGCCCCATGGCTATGCTTACGCTTAACCCAACCTGTGAAAAAGAGGGATTTATAAGTTTGAAG  
AGCAAAACAGGGCAGAGAGCGAGTGCCAGGCATGAACACACATTCACGAGCGTCTGTATGCAGATGGA  
TGATGTAATCGATGACATCATTAGCCTAGAATCAAGTTATAATGAGGAAATCTTGGGCTTGATGGATCCT  
GCTTTGCAAATGGCAAATACGTTGCCTGTCTCGGAAACTTGATTGATCTTTATGAAAACCAAGGTCTGC  
CCCCACCAGGCCTCACCATCAGCAAACCTGTCCAGCCAACCTTCCCAACATAAAAAGGGAGCTCACAGA  
GTCTGAAGCAAGAGCACTGGCCAAAGAGAGGCAGAAAAAGGACAATCACAACTGATTGAACGAAGAAGA  
AGATTTAACATAAATGACCGCATTAAAGAACTAGGTACTTTGATTCCAAGTCAAATGATCCAGACATGC  
GCTGGAACAAGGGAACCATCTTAAAAGCATCCGTGGACTATATCCGAAAGTTGCAACGAGAACAGCAACG  
CGCAAAAGAACTTGAAAACCGACAGAAGAACTGGAGCACGCCAACCGGCATTTGTTGCTCAGAATACAG  
GAACCTTGAAATGCAGGCTCGAGCTCATGGACTTCCCTTATCCATCCACGGGTCTGCTCTCCAGATT  
TGGTGAATCGGATCATCAAGCAAGAACCCTTCTTGAGAACTGCAGCCAAGACCTCTTCAGCATCATGC  
AGACCTAACCTGTACAACAACCTCTCGATCTCACGGATGGCACCATCACCTTCAACAACAACCTCGGAACT  
GGGACTGAGGCCAACCAAGCCTATAGTGTCCCCACAAAATGGGATCCAACTGGAAGACATCCTGATGG  
ACGACACCCTTTCTCCCGTCGGTGTCACTGATCCACTCTTTCTCAGTGTCCCCGGAGCTTCCAAAAC  
AAGCAGCCGGAGGAGCAGTATGAGCATGGAAGAGACGGAGCACACTTGT

**ACGGT**ACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC206557 protein sequence  
 Red=Cloning site Green=Tags(s)

```
MLEMLEYNHYQVQTHLENPTKYHIQQAQRQVQKQYLSTTLANKHANQVLSLPCPNQPGDHVMPVPGSSA
PNSPMAMLTLSNCEKEGFYKFEEQNRAESECPCGMNTHSRASCMQDDVIDDIISLESSYNEEILGLMDP
ALQMANTLPVSGNLIDL YGNQGLPPPGLTISNSCPANLPNIKRELTESEARALAKERQKKNHNLIERRR
RFNINDRIKELGTLIPKSNDDMRWNKGTILKASVDYIRKLQREQQRAKELENRQKLEHANRHLRLRIQ
ELEMQARAHGLSLIPSTGLCSPDLVNRRIKQEPVLENCSDLLQHHADLTCTTTLDLTDGTITFNNNLGT
GTANQAYSVP TKMGSKLEDILMDDTLSPVGVTDPLLSSVSPGASKTSSRRSSMSMEETEHTC
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6332\\_f07.zip](https://cdn.origene.com/chromatograms/mk6332_f07.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\_198158

**ORF Size:** 1239 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\\_198158.3](#)

**RefSeq Size:** 4454 bp

**RefSeq ORF:** 1242 bp

**Locus ID:** 4286

**UniProt ID:** [O75030](#)

**Cytogenetics:** 3p13

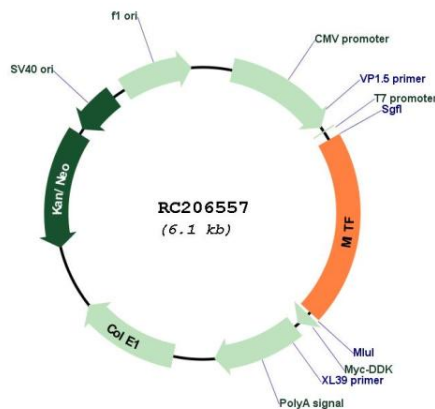
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Melanogenesis, Melanoma, Pathways in cancer

**MW:** 46.3 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 RC206557