

Product datasheet for SC307640

MITF (NM_198178) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: MITF (NM_198178) Human Untagged Clone

Tag: Tag Free Symbol: MITF

Synonyms: bHLHe32; CMM8; COMMAD; MI; WS2; WS2A

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_198178 edited

AAACATTGTTATGCTGGAAATGCTAGAATATAATCACTATCAGGTGCAGACCCACCTCGA AAACCCCACCAAGTACCACATACAGCAAGCCCAACGGCAGCAGGTAAAGCAGTACCTTTC TACCACTTTAGCAAATAAACATGCCAACCAAGTCCTGAGCTTGCCATGTCCAAACCAGCC TGGCGATCATGTCATGCCACCGGTGCCGGGGAGCAGCGCACCCAACAGCCCCATGGCTAT GCTTACGCTTAACTCCAACTGTGAAAAAGAGGGGATTTTATAAGTTTGAAGAGCAAAACAG GGCAGAGAGCGAGTGCCCAGGCATGAACACACATTCACGAGCGTCCTGTATGCAGATGGA TGATGTAATCGATGACATCATTAGCCTAGAATCAAGTTATAATGAGGAAATCTTGGGCTT TTATGGAAACCAAGGTCTGCCCCCACCAGGCCTCACCATCAGCAACTCCTGTCCAGCCAA CCTTCCCAACATAAAAAGGGAGCTCACAGAGTCTGAAGCAAGAGCACTGGCCAAAGAGAG GCAGAAAAAGGACAATCACAACCTGATTGAACGAAGAAGAAGATTTAACATAAATGACCG CATTAAAGAACTAGGTACTTTGATTCCCAAGTCAAATGATCCAGACATGCGCTGGAACAA GGGAACCATCTTAAAAGCATCCGTGGACTATATCCGAAAGTTGCAACGAGAACAGCAACG CGCAAAAGAACTTGAAAACCGACAGAAGAAACTGGAGCACGCCAACCGGCATTTGTTGCT CTGCAGCCAAGACCTCCTTCAGCATCATGCAGACCTAACCTGTACAACAACTCTCGATCT CTATAGTGTCCCCACAAAATGGGATCCAAACTGGAAGACATCCTGATGGACGACACCCT TTCTCCCGTCGGTGTCACTGATCCACTCCTTTCCTCAGTGTCCCCCGGAGCTTCCAAAAC AAGCAGCCGGAGGAGCAGTATGAGCATGGAAGAGACGGAGCACACTTGTTAGCGAATCCT

 ${\tt CCCTGCACTGCATTCGCACAAACTGCTTCCTTTGATT}$

Restriction Sites: Please inquire **ACCN:** NM 198178



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Insert Size: 1300 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 198178.1</u>, <u>NP 937821.1</u>

 RefSeq Size:
 4597 bp

 RefSeq ORF:
 1488 bp

 Locus ID:
 4286

 UniProt ID:
 075030

Cytogenetics: 3p13

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Melanogenesis, Melanoma, Pathways in cancer

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]

Transcript Variant: This variant (6) differs in the 5' UTR and the 5' coding region, and uses two alternate, in-frame splice sites in the coding region compared to variant 1. The resulting isoform (6), also known as isoform MITF-Mdel, has a distinct N-terminus and is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.