

Product datasheet for **RG211586**

MITF (NM_198177) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MITF (NM_198177) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MITF
Synonyms:	bHLHe32; CMM8; COMMAD; MI; WS2; WS2A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211586 representing NM_198177
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGCGCTTAGAGTTCAGATGTTTCATGCCATGCTCCTTTGAAAGCTGTATCTCAGTCCGCCGAGC
 ATCCTGGGGCCTCAAGCCTCCGATAAGCTCCTCCAGTATGACATCACGCATCTTGCTACGCCAGCAACT
 CATGCGTGAGCAGATGCAGGAGCAGGAGCGCAGGGAGCAGCAGCAGAAGCTGCAGCGGCCCCAGTTCATG
 CAACAGAGAGTGCCTGAGTGCAGACACCAGCCATAAACGTCAGTGTGCCACCACCCTTCCCTCTGCCA
 CGCAGGTGCCGATGGAAGTCCTAAGGTGCAGACCCACCTCGAAAACCCACCAAGTACCACATACAGCA
 AGCCCAACGGCAGCAGGTAAAGCAGTACCTTTCTACCCTTTAGCAAATAAACATGCCAACCAAGTCCTG
 AGCTTGCCATGTCAAACCAGCCTGGCGATCATGTGCATGCCACCGGTGCCGGGAGCAGCGCACCCAACA
 GCCCATGGCTATGCTTACGCTTAACTCCAAGTGTAAAAAGAGGGATTTTATAAGTTTGAAGAGCAAAA
 CAGGGCAGAGAGCGAGTCCCAGGCATGAACACACATTCAGAGCGTCTGTATGCAGATGGATGATGTA
 ATCGATGACATCATTAGCCTAGAATCAAGTTATAATGAGGAAATCTTGGGCTTGATGGATCCTGCTTTGC
 AAATGGCAAATACGTTGCTGTCTCGGGAACTTGATTGATCTTTATGGAACCAAGGTCTGCCCCACC
 AGGCCTCACCATCAGCAACTCCTGTCCAGCCAACCTTCCCAACATAAAAAGGGAGCTCACAGAGTCTGAA
 GCAAGAGCACTGGCCAAAGAGAGGCAGAAAAAGGACAATCACAACCTGATTGAACGAAGAAGAAGATTTA
 ACATAATGACCGCATTAAAGAAGTACTTTGATTCCCAAGTCAAATGATCCAGACATGCGCTGGAA
 CAAGGGAACCATCTTAAAGCATCCGTGGACTATATCCGAAAGTTGCAACGAGAACAGCAACCGCAGAAA
 GAACTTGAACCGCAGCAGAAAGAACTGGAGCACGCCAACCGGCATTTGTTGCTCAGAATACAGGAACCTG
 AAATGCAGGCTCGAGCTCATGGACTTTCCCTTATCCATCCACGGGTCTCTGCTCCAGATTTGGTGAA
 TCGGATCATCAAGCAAGAACCCTTCTTGAGAAGTGCAGCCAAGACCTCTTCAGCATCATGCAGACCTA
 ACCTGTACAACAACCTCTCGATCTCACGGATGGCACCATCACCTTCAACAACAACCTCGGAACTGGGACTG
 AGGCCAACCAAGCCTATAGTGTCCCCACAAAAATGGGATCCAACTGGAAGACATCCTGATGGACGACAC
 CCTTTCTCCCGTGGTGTACTGATCCACTCCTTCTCAGTGTCCCGGAGCTTCCAAAAAAGCAGC
 CGGAGGAGCAGTATGAGCATGGAAGAGACGGAGCACACTTGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211586 representing NM_198177
 Red=Cloning site Green=Tags(s)

MEALRVQMFMPSCFESLYLSSAEHPGASKPPISSSSMTRSILLRQQLMREQMQEERREQQKLAQAFM
 QQRVPSQTPAINVSVPTTLPSATQVPMEVLKVQTHLENPTKYHIQQAQRQVKQYLSTTLANKHANQVL
 SLPCPNQPGDHVMPVPGSSAPNSPMAMLTLSNCEKEGFYKFEEQNRAESECPCGMNTHSRASCMQMDV
 IDDIISLESSYNEEILGLMDPALQMANTLPVSGNLIDLYGNQGLPPPGLTISNSCPANLPNIKRELTESE
 ARALAKERQKKNHNLIERRRFNINDRIKELGTLIPKSNPDMRWKGTILKASVDYIRKLQREQQRAK
 ELENRQKLEHANRHLRLRIQELEMQARAHGLSLIPSTGLCSPDLVNRIKQEPVLENCSDLLQHHADL
 TCTTTLDLTDGTITFNNNLGTGTEANQAYSVPTKMGSKLEDILMDDTLSPVGVTDPLLSSVSPGASKTSS
 RRSSMSMEETEHTC

TRTRPLE - GFP Tag - V

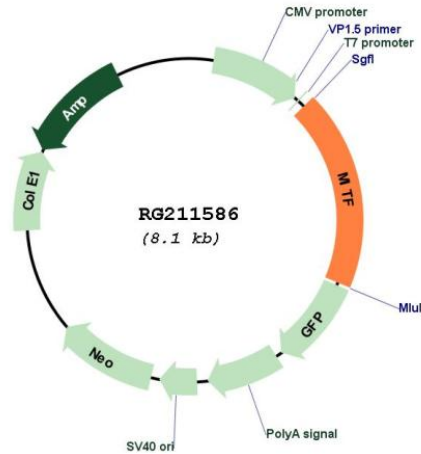
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


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:	<ol style="list-style-type: none">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
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]