

Product datasheet for **MR226997**

Mitf (NM_001178049) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mitf (NM_001178049) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mitf
Synonyms:	BCC2; Bhlhe32; bw; Gsfbcc2; mi; vit; Vitiligo; Wh
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR226997 representing NM_001178049
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGGCGCTTAGATTTGAGATGCTCATCCCCTGCTCCTTTGAAAGCTTGTGTCTCAGTCTCGAGAGC
 ATTCTGGGGCCTCAAGCCTCCGTTAAGCTCCTCCACTATGACATCACGCATCTTGCTACGCCAGCAACT
 CATGCGTGAGCAGATGCAGGAGCAGGAGCGCAGGGAGCAGCAGCAGAAGCTGCAGGCAGCCAGTTCATG
 CAACAGAGAGTGGCCGTGAGTCAGACACCAGCCATAAACGTCAGCGTGCCACCACCCTTCCCTCTGCCA
 CCCAGGTGCCGATGGAAGTCCTAAGGTGCAGACCCACCTGGAAAACCCACCAAGTACCACATACAGCA
 AGCTCAGAGGCACCAGGTAAAGCAGTACCTTTCTACCCTTTAGCAAATAAACATGCCAGCCAAGTCTGT
 AGCTCACCATGTCAAACCAGCCTGGCGACCATGCCATGCCACCAGTCCCGGGGAGCAGCGCACCCAACA
 GCCCTATGGCTATGCTCACTCTTAACCTCAACTGTGAAAAGAGGCATTTTATAAGTTTGAGGAGCAGAG
 CAGGGCAGAGAGTGAAGTCCCAGGTATGAACACGCACTCTCGAGCGTCGTGCATGCAGATGGATGATGTA
 ATTGATGACATCATCAGCCTGGAATCAAGTTATAATGAAGAAATTTGGGCTTGATGGATCCGGCCTTGC
 AAATGGCAAATACGTTACCCGTCTCTGGAACCTTGATCGACCTCTACAGCAACCAGGGCCTGCCACCGCC
 AGGCCTTACCATCAGCAACTCCTGTCCAGCCAACCTTCCCAACATAAAAAGGGAGCTCACAGCGTGATT
 TTCCCCACAGAGTCTGAAGCAAGAGCATTGGCTAAAGAGAGGCAGAAAAGGACAATCACAACCTTGATTG
 AACGAAGAAGAAGATTTAACATAAACGACCCGATTAAGGAGCTAGGTACTCTGATCCCAAGTCAAATGA
 TCCAGACATGCGGTGGAACAAGGAAACCATCTCAAGGCCTCTGTGGACTACATCCGGAAGTTGCAACGG
 GAACAGCAACGAGCTAAGGACCTTGAACCCGACAGAAGAAGCTGGAGCATGCGAACCCGGCACCTGCTGC
 TCAGAGTACAGGAGCTGGAGATGCAGGCTAGAGCGCATGGACTTCCCTTATCCCATCCACCGGTCTCTG
 CTGCGCTGATCTGGTGAATCGGATCATCAAGCAAGAACCAGTTCTTGAGAACTGCAGCCAGGAACCTGTA
 CAGCACAGGCAGACCTGACATGTACGACAACCTTGATCTCACGGACGGTACCATCACCTTTACCAACA
 ACCTCGGCACCATGCCGGAGAGCAGCCCGCCTACAGCATCCCCAGGAAGATGGGCTCCAACCTTGGAAGA
 CATCCTGATGGACGATGCCCTCTCACCTGTTGGAGTACCAGCCACTGCTGTCATCAGTGTGCCAGGA
 GCTTCAAAAACAAGCAGCCGGAGGAGCAGTATGAGCGCAGAAGAAACGGAGCATGCGTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226997 representing NM_001178049
 Red=Cloning site Green=Tags(s)

MEALRFEMLIPCSFEESLCLSSAEHSGASKPPLSSSTMTSRILLRQQLMREQMQEERREQQKLQAAQFM
 QQRVAVSQTPAINVSVPTTLP SATQVPMEV LKVQTHLENPTKYHIQQAQRHQVKQYLSTTLANKHASQVL
 SSPCPNQPGDHAMPPVPGSSAPNSPMAMLT LNSNCEKEAFYKFEEQSRAESECPGMNTHSRASCMQDDV
 IDDIISLESSYNEEILGLMDPALQMANTLPVSGNLIDL YSNQGLPPPGLTISNSCPANLPNIKRELTACI
 FPTESEARALAKERQKKNHNL IERRRRFNINDRIKELGTLIPKSNPDMRWKGTILKASVDYIRKLQR
 EQQRKADLENRQKLEHANRHLLLRVQELMQR AHGLSLIPSTGL CSPDLVNRIKQEPVLENCSEQLV
 QHQADLTCTTTLDLTDGTTFTNNLGTMPESPAYSIPRKMGSNLEDILMDDALSPVGVTDPLLSSVSPG
 ASKTSSRRSSMSAEETEAC

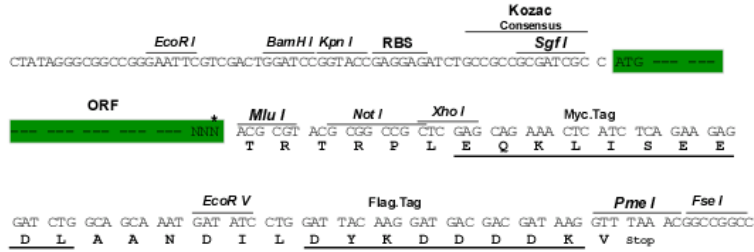
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

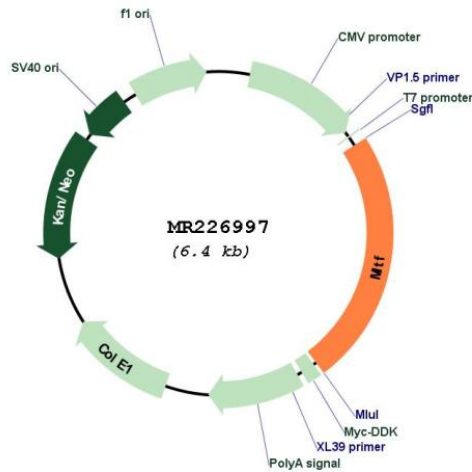
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001178049

ORF Size: 1530 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_001178049.1](#), [NP_001171520.1](#)

RefSeq Size: 4777 bp

RefSeq ORF: 1533 bp

Locus ID: 17342

Cytogenetics: 6 45.05 cM

MW: 57.3 kDa

Gene Summary: This transcription factor serves at a critical point between extracellular signaling and downstream targets in cell specification in early eye and neural crest development. Mutant alleles have been identified that generate distinct phenotypes. Some of these alleles are being used to model the human diseases Waardenburg syndrome IIa and Tietz syndrome. [provided by RefSeq, Jul 2008]