

Product datasheet for **MG223016**

Tfeb (NM_011549) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tfeb (NM_011549) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tfeb
Synonyms:	bHLHe35; Tcfef
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG223016 representing NM_011549
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTCAGCTCGCTCAGTGGTCTTGGCAAAATCCCTTCTGCCCGGACTCAGTTTCTCCTGTGCACAAAT
 GGGAGCAACCATACTTATGCCAGCCTGTGCTTAAAGACTACGAAGATGATGAATACTTCATGGCCCTGTC
 TCCCTCGACTACAGGGAGCCGAACCAACAGCTGCCATGGCGTCACGCATCGGGCTGCGCATGCAGCTC
 ATGCGGGAGCAGGCCAGCAGGAGGAGCAGCGAGAGCGCATGCAGCAGCAGGCTGTCATGCATTATATGC
 AACAGCAGCAGCAGCAGCAGCAGCTGGTGGGCCCCCACCAGCCATCAACACCCCTGTCCACTT
 CCAGTCGCCCCCGCTGTGCCGGGGAGGTGCTGAAGGTGCAGTCTACCTGGAGAACCCACCTCTAC
 CACCTGCAACAGTCCCAGCATCAGAAGGTTCCGAAGTATCTGTCTGAGACCTATGGGAACAAGTTTGCTG
 CCCAGTGCAGCCAGCCAAAGGTTCCCGAAGCCTGCCAGCAGCATCCCAGGGGTGCGGGCTGGACA
 CGTACTGTCCACCTCGGCCGGAACAGTCTCCAACAGTCCCATGGCCATGCTACATATCAGCTCCAAC
 CCCGAGAAAGAGTTTGATGATGTATTGACAACATTATGCGCCTGGACAGCGTGTGGGCTACATCAACC
 CTGAGATGCAGATGCCTAACACGCTGCCCTGTCTAGCAGCCACCTGAACGTGTACAGCGGTGACCCCCA
 GGTACAGCCTCCATGGTGGGTGTACCAGCAGCTCCTGCCCTGCCGACCTGACTCAGAAGCGAGAGCTA
 ACAGATGCTGAGAGCAGAGCCCTGGCCAAGGAGCGGCAGAAGAAAGACAATCACAACTAATTGAGAGAA
 GACGCAGGTTCAACATCAATGACCGGATCAAGGAGCTGGGAATGCTGATCCCCAAGGCCAACGACCTGGA
 CGTGGCTGGAACAAAGGCACCATCCTCAAGGCCTCTGTGGATTACATCCGGAGGATGCAGAAGGACCTG
 CAGAAGTCCCGGAGCTGGAGAACCCTCCCGGCCTGGAGATGACTAACAAGCAGCTCTGGCTCCGCA
 TCCAGGAGCTGGAGATGCAGGCACGCTGCACGGCCTCCCACCACCTCGCCGTGGGTGTAATATGGC
 CGAGTGGCCCAGCAGGTGGTGAAGCAAGAGTTGCCAGTGAGGATGGCCAGGGGAGCGCTGATGCTG
 GGGCCTGAGGTCCCTGAGCCTGAGCAAATGCCGGCTTCTCCTCCCAGGCTCCGCTGCCCTCGGCCGCC
 AGCCACAGTCTCCGTTCCATCACCTGGACTTCAGCCATGGCCTGAGCTTTGGGGTGGGGGCGACGAGGG
 GCCACAGGTTACCCGATACCCCTGGGGACAGAGCAGGCTCCCCATTCCCCAACCTGTCCAAGAAGGAT
 CTGGACTTAATGCTCCTAGATGACTCCCTGCTCCCCTGGCCTCTGACCCCTCTTTTCTACCATGTCTC
 CTGAGGCTCCAAGGCCAGCAGCCCGGAGCAGCTTCAGCATGGAGGAGGTGATGTTCTG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

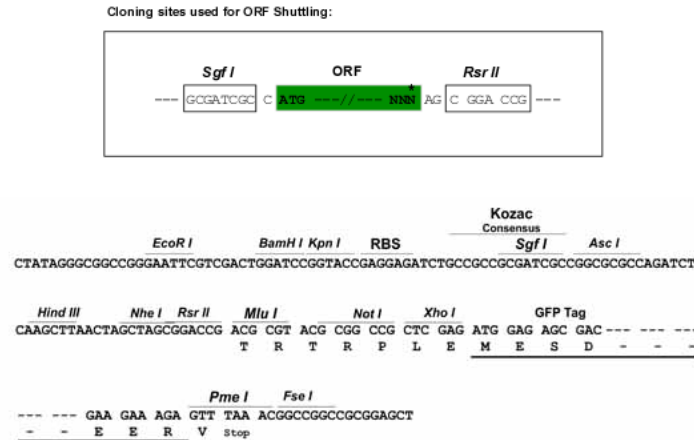
>MG223016 representing NM_011549
 Red=Cloning site Green=Tags(s)

MAQLAQSWANPFCPDSVSPCAQWEQPYLCQPVLKDYEDDEYFMGLSPLDYREPEPTAAMASRIGLRMQL
 MREQAQEEQRERMQQQAVMHYMQQQQQQQQLGGPPTPAINTPVHFQSPPPVPGEVKLVQSYLENPTSY
 HLQQSQHQKVRKYLSEYGNKFAAHVSPAQGSPPKAPAAASPGVRAGHVLSTAGNSAPNSPMAMLISSN
 PEKEFDDVIDNIMRLDSVLGYINPEMQMPNTLPLSSSHLNVYSGDPQVTASMGVVTSSSCPADLTQKREL
 TDAESRALAKERQKDNHNLIERRRRFNINDRIKELGMLIPKANDLDVRWNKGTILKASVDYIRRMQKDL
 QKSRELENHSRRLMNTKQLWLRIQELEMQARVHGLPTTSPSGVNMAELAQQVVKQELPSEDGPGALML
 GPEVPEPEQMPALPPQAPLPSAAQPQSPFHHLDFSHGLSFGGGDEGPTGYPDTLGEHGSFPNLSKLD
 LDLMLLDDSLPLASDPLFSTMSPEASKASSRRSSFMEEGDVL

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_011549

ORF Size: 1602 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:

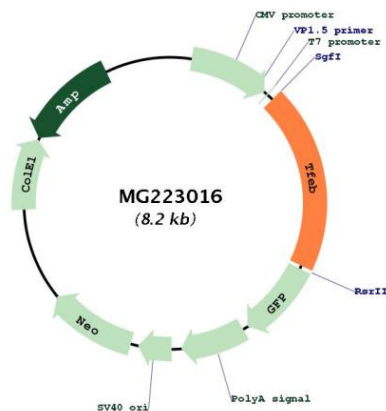
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_011549.2](#)

RefSeq Size: 2298 bp
RefSeq ORF: 1605 bp
Locus ID: 21425
UniProt ID: [Q9R210](#)
Cytogenetics: 17 23.99 cM

Gene Summary: Transcription factor that specifically recognizes and binds E-box sequences (5'-CANNTG-3'). Efficient DNA-binding requires dimerization with itself or with another MiT/TFE family member such as TFE3 or MITF. In association with TFE3, activates the expression of CD40L in T-cells, thereby playing a role in T-cell-dependent antibody responses in activated CD4(+) T-cells and thymus-dependent humoral immunity. Specifically recognizes and binds the CLEAR-box sequence (5'-GTCACGTGAC-3') present in the regulatory region of many lysosomal genes, leading to activate their expression. It thereby plays a central role in expression of lysosomal genes. Acts as a positive regulator of autophagy by promoting expression of genes involved in autophagy. Specifically recognizes the gamma-E3 box, a subset of E-boxes, present in the heavy-chain immunoglobulin enhancer. Plays a role in the signal transduction processes required for normal vascularization of the placenta. Regulates lysosomal positioning in response to nutrient deprivation by promoting the expression of PIP4P1 (PubMed:29146937). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG223016