

Product datasheet for **RG233963**

TFEB (NM_001271943) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TFEB (NM_001271943) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TFEB
Synonyms:	ALPHATFEB; BHLHE35; TCFEB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG233963 representing NM_001271943 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTCACGCATAGGGTTGCGCATGCAGCTCATGCGGGAGCAGGCGCAGCAGGAGGAGCAGCGGGAGC
GCATGCAGCAACAGGCTGTCATGCATTACATGCAGCAGCAGCAGCAGCAACAGCAGCAGCTCGGAGG
GCCGCCACCCCGCCATCAATACCCCGTCCACTTCCAGTCGCCACCACCTGTGCCTGGGAGGTGTTG
AAGTTGGATGATGTCATTGACAACATTATGCGTCTGGACGATGTCCTTGGCTACATCAATCCTGAAATGC
AGATGCCAACACGCTACCCCTGTCCAGCAGCCACCTGAATGTGTACAGCAGCGACCCCAAGTTCACAGC
CTCCCTGGTGGCGTCACCAGCAGCTCCTGCCCTGCGGACCTGACCCAGAAGCGAGAGCTCACAGATGCT
GAGAGCAGGGCCCTGGCCAAGGAGCGGCAGAAAGACAATCACAACCTAATTGAAAGGAGACGAAGGT
TCAACATCAATGACCGCATCAAGGAGTTGGGAATGCTGATCCCCAAGGCCAATGACCTGGACGTGCGCTG
GAACAAGGGCACCATCCTCAAGGCTCTGTGGATTACATCCGGAGGATGCAGAAGGACCTGCAAAAGTCC
AGGAGCTGGAGAACCACTCTCGCCGCTGGAGATGACCAACAAGCAGCTCTGGCTCCGTATCCAGGAGC
TGGAGATGCAGGCTCGAGTGCACGGCCTCCCTACCACCTCCCGTCCGGCATGAACATGGCTGAGCTGGC
CCAGCAGGTGGTGAAGCAGGAGCTGCCTAGCGAAGAGGGCCAGGGGAGGCCCTGATGCTGGGGCTGAG
GTCCCTGACCTGAGCCACTGCCAGCTCTGCCCCGCAAGCCCGCTGCCCTGCCACCCAGCCACCAT
CCCCATTCCATCACCTGGACTTCAGCCACAGCCTGAGCTTTGGGGCAGGGAGGAGCGAGGGTCCCCCGGG
CTACCCGAACCCCTGGCGCCGGGCATGGCTCCCATTCACCCAGCCTGTCCAAGAAGGATCTGGACCTC
ATGCTCTGGACGACTACTGCTACCGCTGGCCTCTGATCCACTTCTGTCCACCATGTCCCCGAGGCCCT
CCAAGGCCAGCAGCCCGGAGCAGCTTTCAGCATGGAGGAGGGCGATGTGCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG233963 representing NM_001271943
Red=Cloning site Green=Tags(s)

MASRIGLRMQLMREQAQQEEQRERMQQQAVMHYMQQQQQQQQQQLGGPPTPAINTPVHVFQSPPPVPGEVL
 KLDDVIDNIMRLDDVLGYINPEMQMPNTLPLSSSHLNVYSSDPQVTASLVGVTSSSCPADLTQKRELTDA
 ESRALAKERQKKNHNLIERRRRFNINDRIKELGMLIPKANDLDVRWNGTILKASVDYIRRMQKDLQKS
 RELENHSRRLEMTNKQLWLRIQELEMQARVHGLPTTSPSGMMAELAQQVVKQELPSEEGPGEALMLGAE
 VPDPEPLPALPPQAPLPLPTQPPSPFHHLDFSHLSFGGREDEGPPGYPEPLAPGHGSPFSLSKKDLDL
 MLLDSSLPLASDPLLSTMSPEASKASSRRSSFMEEGDVL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001271943

ORF Size: 1173 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_001271943.1](#), [NP_001258872.1](#)

RefSeq Size: 2089 bp

RefSeq ORF: 1176 bp

Locus ID: 7942

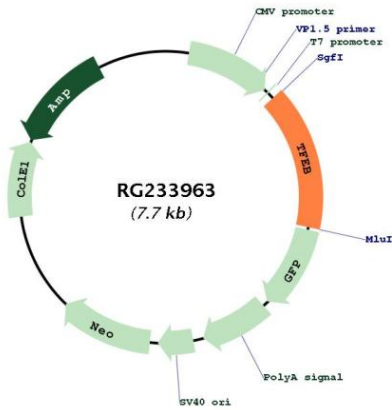
UniProt ID: [P19484](#)

Cytogenetics: 6p21.1

Protein Families: Druggable Genome, Transcription Factors

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 RG233963