

Product datasheet for **RC230141**

TFEB (NM_001167827) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TFEB (NM_001167827) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TFEB
Synonyms:	ALPHATFEB; BHLHE35; TCFEB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230141 representing NM_001167827.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGTCACGCATAGGGTTGCGCATGCAGCTCATGCGGGAGCAGGCGCAGCAGGAGGAGCAGCGGGAG
CGCATGCAGCAACAGGCTGTATGCATTACATGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGCTCGGA
GGGCCGCCACCCCGCCATCAATACCCCGTCCACTTCCAGTCGCCACCACCTGTGCCTGGGGAGGTG
TTGAAGGTGCAGTCTACCTGGAGAATCCACATCCTACCATCTGCAGCAGTCGCAGCATCAGAAGGTG
CGGGAGTACCTGTCCGAGACCTATGGGAACAAGTTTGTGCCACATCAGCCAGCCAGGGCTCTCCG
AAACCCACCAGCCGCCTCCCAAGGGTGCAGCTGGACACGTGCTGTCTCTCCGCTGGCAACAGT
GCTCCCAATAGCCCATGGCCATGCTGCACATTGGCTCCAACCCTGAGAGGGAGTTGGATGATGTCATT
GACAACATTATGCGTCTGGACGATGCTTGGCTACATCAATCCTGAAATGCAGATGCCAACACGCTA
CCCCTGTCCAGCAGCCACCTGAATGTGTACAGCAGCGACCCCAAGTACAGCCTCCTGGTGGGCGTC
ACCAGCAGCTCCTGCCCTGCGGACTGACCCAGAAGCGAGAGCTCACAGATGCTGAGAGCAGGGCCCTG
GCCAAGGAGCGGCAAGAAAGACAATCAAACTTAATTGAAAGGAGACGAAGGTTCAACATCAATGAC
CGCATCAAGGAGTTGGGAATGCTGATCCCAAGGCCAATGACCTGGACGTGCGCTGGAACAAGGGCACC
ATCCTCAAGGCCTCTGTGGATTACATCCGGAGGATGCAGAAGGACCTGCAAAAGTCCAGGGAGCTGGAG
AACCCTCTCGCCGCCTGGAGATGACCAACAAGCAGCTCTGGCTCCGTATCCAGGAGCTGGAGATGCAG
GCTCGAGTGCACGGCCTCCCTACCACCTCCCGTCCGGCATGAACATGGCTGAGCTGGCCAGCAGGTG
GTGAAGCAGGAGCTGCCTAGCGAAGAGGGCCAGGGGAGGCCCTGATGCTGGGGCTGAGGTCCCTGAC
CCTGAGCCACTGCCAGCTCTGCCCCGCAAGCCCGCTGCCCTGCCACCCAGCCACCATCCCCATTC
CATCACTGGACTTCAGCCACAGCCTGAGCTTTGGGGCAGGGAGGACGAGGGTCCCCGGGCTACCCC
GAACCCCTGGCGCGGGGCATGGCTCCCAATCCCGAGCCTGTCCAAGAAGGATCTGGACCTCATGCTC
CTGGACGACTCACTGCTACCGCTGGCCTCTGATCCACTTCTGTCCACCATGTCCCCGAGGCCTCCAAG
GCCAGCAGCCCGGAGCAGTTTCAAGATGGAGGAGGGCGATGTGCTG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Protein Sequence:

>Peptide sequence encoded by RC230141
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MASRIGLRMQLMREQAQQEEQRERMQQQAVMHYMQQQQQQQQLGGPPTPAINTPVHFQSPPPVPGEV
LKVQSYLENPTS YHLQSQHQK VREYLSETYGNKFAAHSIPAQGSPPPPAASPGVRAGHVLSSSAGNS
APNSPMAMLHIGSNPERELDDVIDNIMRLDDVLGYINPEMQMPNTLPLSSHLNVYSSDPQVTASLVGV
TSSSCPADLTQKRELTDAESRALAKERQKKNHNLIERRRRFNINDRIKELGMLIPKANDLDVRWNKGT
ILKASVDYIRRMQKDLQKSRELENHSRRLEMTNKQLWLRIQELEMQARVHGLPTTSPSGMNAELAQQV
VKQELPSEEGPGEALMLGAEVPDPEPLPALPPQAPLPLPTQPPSPFHHLDFSHLSFGGREDEGPPGY
EPLAPGHGSPFSLSKKDLMLLDDSLPLASDLLSTMSPEASKASSRRSSFMEEGDVL
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

Chromatograms:

https://cdn.origene.com/chromatograms/mk6279_a10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001167827

ORF Size: 1428 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_001167827.1](#), [NP_001161299.1](#)

RefSeq ORF: 1473 bp

Locus ID: 7942

UniProt ID: [P19484](#)

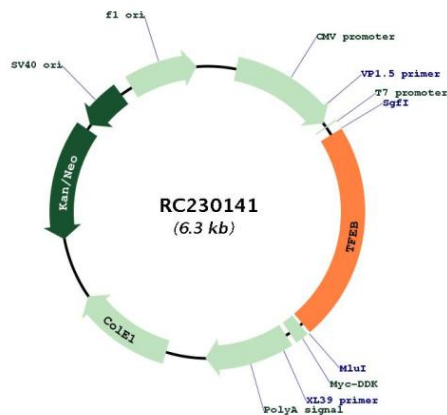
Cytogenetics: 6p21.1

Protein Families: Druggable Genome, Transcription Factors

MW: 52.9 kDa

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 RC230141