

Product datasheet for **RC207153**

TFEB (NM_007162) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TFEB (NM_007162) 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:

>RC207153 representing NM_007162
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGTCACGCATAGGTTGCGCATGCAGCTCATGCGGGAGCAGGCCAGCAGGAGGAGCAGCGGGAGC
 GCATGCAGCAACAGGCTGTCATGCATTACATGCAGCAGCAGCAGCAGCAACAGCAGCAGCTCGGAGG
 GCCGCCACCCCGCCATCAATACCCCGTCCACTTCCAGTCGCCACCACCTGTGCCTGGGGAGGTGTTG
 AAGGTGCAGTCTACCTGGAGAATCCCACATCCTACCATCTGCAGCAGTCGCAGCATCAGAAGGTGCGGG
 AGTACCTGTCCGAGACCTATGGGAACAAGTTTGTGCCCCACATCAGCCCAGCCAGGGCTCTCCGAAACC
 CCCACCAGCCGCCTCCCAGGGGTGCGAGCTGGACACGTGCTGTCTCCTCCGCTGGCAACAGTGTCTCC
 AATAGCCCCATGGCCATGCTGCACATTGGCTCAAACCTGAGAGGGAGTTGGATGATGTCATTGACAACA
 TTATGCGTCTGGACGATGCTTGGCTACATCAATCCTGAAATGCAGATGCCAACACGCTACCCCTGTC
 CAGCAGCCACCTGAATGTGTACAGCAGCAGCCCCAGGTCACAGCCTCCCTGGTGGCGTACCAGCAGC
 TCTGCCCCGCGACCTGACCCAGAAGCGAGAGCTCACAGATGCTGAGAGCAGGGCCCTGGCCAAGGAGC
 GGCAGAAGAAAGACAATCACAATTAATTGAAAGGAGACGAAGTTCAACATCAATGACCGCATCAAGGA
 GTTGGGAATGCTGATCCCCAAGGCCAATGACCTGGACGTGCGCTGGAACAAGGGCACCATCCTCAAGGCC
 TCTGTGGATTACATCCGGAGGATGCAGAAGGACCTGCAAAAGTCCAGGGAGCTGGAGAACCCTCTCGCC
 GCCTGGAGATGACCAACAAGCAGCTCTGGCTCCGTATCCAGGAGCTGGAGATGCAGGCTCGAGTGCACGG
 CCTCCCTACCACCTCCCGTCCGGCATGAACATGGCTGAGCTGGCCAGCAGGTGGTGAAGCAGGAGCTG
 CCTAGCGAAGAGGGCCCAGGGGAGGCCCTGATGCTGGGGGTGAGTCCCTGACCCTGAGCCACTGCCAG
 CTCTGCCCCGCAAGCCCGCTGCCCTGCCACCCAGCCACCATCCCCATTCCATCACCTGAGCTTCCAG
 CCACAGCCTGAGCTTTGGGGGCAGGGAGGACGAGGGTCCCCGGGCTACCCGAACCCCTGGCGCCGGGG
 CATGGCTCCCCATTCCCCAGCCTGTCCAAGAAGGATCTGGACCTCATGCTCCTGGACGACTCACTGCTAC
 CGCTGGCCTCTGATCCACTTCTGTCCACCATGTCCCCGAGGCCCTCAAGGCCAGCAGCCGCCGGAGCAG
 CTTTCAGCATGGAGGAGGGCGATGTGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207153 representing NM_007162
 Red=Cloning site Green=Tags(s)

MASRIGLRMQLMREQAQEEQRERMQQQAVMHYMQQQQQQQQLGGPPTPAINTPVHFQSPPPVPGEVL
 KVQSYLENPTSYHLQSQHQKQVREYLSETYGNKFAAHISPAQGSPPKPPAASPGVRAGHVLSSSAGNSAP
 NSPMAMLHIGSNPERELDDVIDNIMRLDDVLGYINPEMQMPNTLPLSSHLNVYSSDPQVTASLVGVTSS
 SCPADLTQKRELDAESRALAKERQKKNHNLIERRRFNINDRIKELGMLIPKANDLDVRWNGTILKA
 SVDYIRRMQKDLQKSRELENHSRREMTNKQLWLRIQELEMQARVHGLPTTSPSGMNMAELAQQVVKQEL
 PSEEGPGEALMLGAEVPDPEPLPALPPQAPLPLPTQPPSPFHHLDFSHLSFGGREDEGPPGYPEPLAPG
 HGSPFPLSKKDLMLLDDSLPLASDPLLSTMSPEASKASSRRSSFMEEGDVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

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

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_007162

ORF Size: 1428 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_007162.2](#)

RefSeq Size: 2364 bp

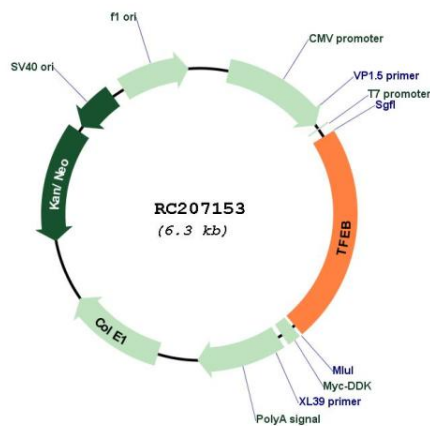
RefSeq ORF: 1431 bp

Locus ID: 7942

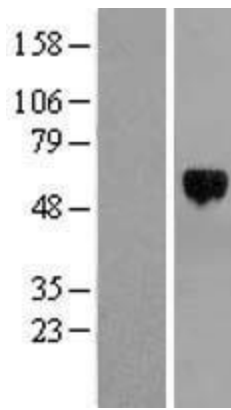
UniProt ID: [P19484](#)
Cytogenetics: 6p21.1
Protein Families: Druggable Genome, Transcription Factors
MW: 52.9 kDa

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 RC207153



Western validation with an anti-DDK antibody; L: Control HEK293 lysate R: Over-expression lysate