

## Product datasheet for RC214384

### TFEC (NM\_001018058) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TFEC (NM_001018058) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TFEC
Synonyms:	bHLHe34; hTFEC-L; TCFC; TFE-C; TFEC-L; TFEL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214384 representing NM_001018058 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCCTTGATCATCAGATCATCAATCCAACCTTTAAATGGTCACAACCTGCAGTGCCAAGTGGTGGC  
CTCTTGTGCAGCATGCACACAACTCTGGACAGTGATGCTGGCCTCACAGAAAACCCACTACCAAGTT  
ACTAGCTATTGGGAAAGAAGATGACAATGCACAATGGCATTATCTGGAAGTATTTGGATGTGTATAGC  
GGTGAACAAGGAATTCACCAATTAACATGGGGCTTACAAGTCTTCTGTCCAAGTAGTCTACCAATGA  
AAAGAGAAATTACAGAACTGACACTAGAGCTTTAGCAAAAGAGAGACAAAAAAGGACAACCACAACCT  
CATTGAAAGAAGAAGGTATAATATTAATTACCGAATCAAGGAGCTTGGCACTTTATCCAAAGTCT  
AATGATCCTGATATGCGCTGGAACAAAGGAACCTTCTAAAAGCATCAGTGGAGTACATCAAGTGGCTAC  
AAAAAGAACAACAGAGAGCCGAGAATTGGAACACAGACAGAAGAAATTAGAGCAGGCTAACAGGCGACT  
TCTACTTCGGATTAGGAACTAGAAATTCAGGCTCGTACTCATGGTCTGCCAACCTGGCTTCACTTGGC  
ACGTTGATTTAGGTGCTCATGTACCAAAACAGCAGAGCCATCCTGAGCAGAATTCAGTAGACTATTGCC  
ACAACCTGACTGTGTCTCAGGGCCAAGCCCTGAGCTCTGTGATCAAGCTATAGCCTTTTCTGATCCTTT  
GTCATACTTACAGATTTATCATTTAGTGTGCTGATTGAAAGAGGAACAAAGATTGGATGGCATGCTATTG  
GATGACACAATCTCTCCATTTGGAACAGATCCTCTGCTATCTGCCACTTCCCCTGCAGTTTCCAAGAAA  
GCAGTAGGAGAAGTAGCTTAGCTCAGATGATGGTATGAATTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC214384 representing NM\_001018058  
Red=Cloning site Green=Tags(s)

MTLDHQIINPTLKWSQPAVPSGGPLVQHAHTTLDSDAGLTENPLTKLLAIGKEDDNAQWHLSGSILDVYS  
 GEQGISPINMGLTSASCPSSLPMKREITETDTRALAKERQKKNHNLIERRRRYNINRIKELGTLIPKS  
 NDPDMRWNKGTILKASVEYIKWLQKEQQRARELEHRQKKLEQANRLLLRIQELEIQARTHGLPTLASLG  
 TVDLGAHVTKQQSHPEQNSVDYCCQLTVSQGPSPELCDQAIASFSDPLSYFTDLSFSAALKEEQRLDGMLL  
 DDTISPFGTDLLSATSPAVSKESSRRSSFSSDDGDEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3452\\_b03.zip](https://cdn.origene.com/chromatograms/mg3452_b03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001018058

**ORF Size:** 954 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\\_001018058.3](#)

**RefSeq Size:** 6544 bp

**RefSeq ORF:** 957 bp

**Locus ID:** 22797

**UniProt ID:** [O14948](#)

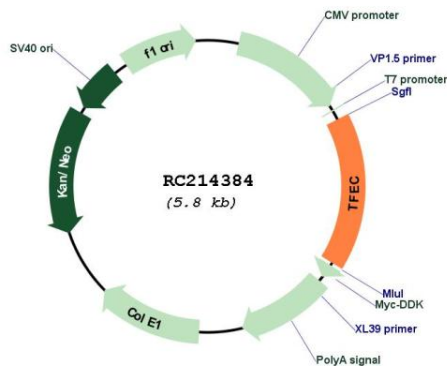
**Cytogenetics:** 7q31.2

**Protein Families:** Druggable Genome, Transcription Factors

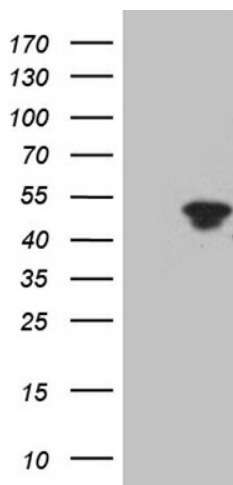
**MW:** 35.4 kDa

**Gene Summary:** This gene encodes a member of the microphthalmia (MiT) family of basic helix-loop-helix leucine zipper transcription factors. MiT transcription factors regulate the expression of target genes by binding to E-box recognition sequences as homo- or heterodimers, and play roles in multiple cellular processes including survival, growth and differentiation. The encoded protein is a transcriptional activator of the nonmuscle myosin II heavy chain-A gene, and may also co-regulate target genes in osteoclasts as a heterodimer with microphthalmia-associated transcription factor. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Sep 2011]

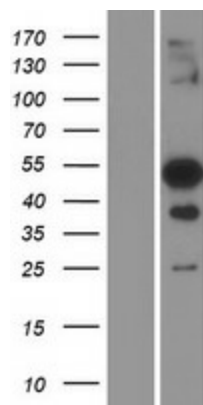
### Product images:



Circular map for RC214384



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TFEC (Cat# RC214384, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TFEC (Cat# [TA811471])(1:2000). Positive lysates [LY422712] (100ug) and [LC422712] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY422712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214384 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).