

Product datasheet for **MR222642**

Tfe3 (NM_001105196) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tfe3 (NM_001105196) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tfe3
Synonyms:	bHLHe33; F830016E06Rik; Tcfe3; Tfe-3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR222642 representing NM_001105196
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTCATGCAGCCGAGCCAGCTCGGGACGCCGTAGAGGCCAGCGCGGAGGGCCCTCGAGCCGTGTTCC
 TGCTATTGGAAGAGCGCAGGCCAGCTGAGTCGGCCAGCTGCTCAGCCTGAATTCCTTGCTCCGGAATC
 CGGGATTGTTGCTGATATCGAGTTAGAAAAATCCTCGATCCTGACAGCTTCTACGAGCTCAAAAGCCAA
 CCCCTATCCCTCCGCTCCAGCCTCCAATACTGCAGGCCACACCGACCACCCAGCTACACTCTCTG
 CGTCGCTTCTGCAGGGGCTCCCGACCCCTGCCATGTCATCTTCTTATCACGGGTCTTGCTGCGTCA
 GCAGCTTATGAGGGCCAGGCTCAGGAACAGGAGAGGCGTGAGCGGGGGAACAGGCAGCGGCCGCTCCC
 TTCCCAGCCCTGCGCCCGCTCACCAGCCATCTCTGTGATTGGCGTGTCTGCTGGTGGCCACACTGA
 GTCGTCCACCTCTGCTCAGGTGCCAGGGAGGTACTCAAGGTTACAGCCACCTCGAGAACCCTACAGC
 CTACCACCTGCAGCAAGCTCGCCGGCAGCAGGTCAAACAGTACTTGTCTACCACACTTGGGCCAAAGCTG
 GCTTCCCAGGCTCTACCCACACCAGGGCCTTCCAGTGCCAGCCACTTCTGCCCCTGAAACTGCTC
 ATGCCACCGGTCTACAGGCAGTCTCCTAACAGCCCCATGGCGCTGCTCACCATTGGGTCCAGCTCAGA
 AAAGGAGCTGCCGGTGTCTGAAATCTACTTGATGTGTACAGCAGTCAGGGAGTGCTACCCAGCTATC
 ACCGTCAGCAATTCCTGTCCAGCTGAGCTGCCTAACATCAAACCGGAGATCTCCGAAACCAGGCAAAGG
 CCCTTTTGAAGGAGCGACAGAAGAAAGACAATCACAACCTAATTGAACGACGCAGGCGATTCAACATTAA
 CGATAGGATCAAAGAGCTGGGCACCCTCATCCCAAGTCCAATGATCCGGAGATGCGTGGAACAAGGGC
 ACCATCCTGAAGGCATCTGTGGATTACATCCGCAAAATTACAGAAGGAACGCAACGCTCCAAAGACTGG
 AGAGCCGCGCAGCGTCCCTGGAACAAGCCAACCGAAGCCTGCAGCTCCGGATTGAGGAGTGAAGCTGCA
 GGCCAGATCCATGGTCTGCCAGTCCCTCCCAACCCAGGACTGCTCTCCCTAACCCAGAGTTCGGTCTCT
 GACAGCCTCAAGCCAGAACAGCTGGACATTGAGGAGGAGGGCAGGCCATGACACAACGTTCCATGTATCGG
 GAGGACCTGCCAGAACGCTCCTCCACAACAGCCTCCAGCACCACCTTCGGATGCCCTTCTGGACCTACA
 CTTTCCCAGCGACCCTTGGGAGACCTGGGGGACCCCTCCACCTAGGGCTAGAGGACATTCTGATGGAG
 GAGGAGGGGATGGTGGGAGGACTGTGAGGGGTGCCCTGTCCCCTGCGGGCTGCTTCTGACCCCTGCT
 TTTCTTCAGTATCCCGGCTGTTTCCAAGGCCAGCAGCCCGCTAGCAGCTTCAGCATGGAAGAGGAGTC
 C

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR222642 representing NM_001105196
 Red=Cloning site Green=Tags(s)

MSHAAEPARDAVEASAEGPRAVFLLEERRPAESAQLLSLNSLLPESGIVADIELENILDPSFYELKSQ
 PLSLRSSLPIISLQATPTTPATLSASSSAGGSRTPAMSSSSSRVLLRQQLMRAQAQEQRERREQAAAAP
 FPSPAPASPAISVIGVSAGGHTLSRPPPAQVPREVLKVQTHLENPTRYHLQQARRQVVKQYLSTTLGPKL
 ASQALTPPPSPSAQPLPAPETAHATGPTGSAPNSPMALLTIGSSSEKELPVSGNLLDVYSSQGVATPAI
 TVSNSCPAELPNIKREISETAKALLKERQKDNHNLIERRRFNINDRIKELGTLIPKSNPPEMRWNKG
 TILKASVDYIRKLQKEQQRSKDLRSRQSLQANRSLQLRIQELELQAQIHGLPVPNPGLLSLTTSSVS
 DSLKPEQLDIEEEGRPSTTFHVSGGPAQNAPPQPPAPPDALLDLHFPDHLGDLGDPFHLGLEDILME
 EEGMVGGLSGGALSPLRAASDPLLSSVSPAVSKASSRRSSFMEEEES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

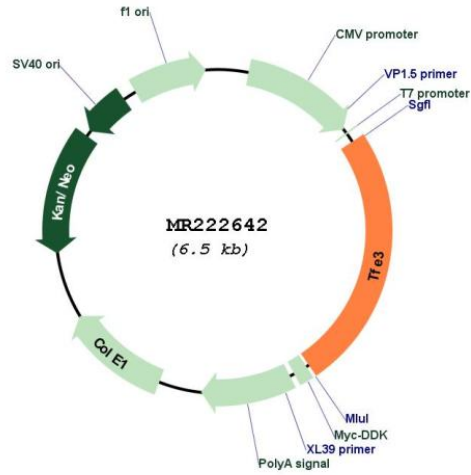
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001105196
ORF Size:	1611 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:	<ol style="list-style-type: none">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_001105196.1 , NP_001098666.1
RefSeq Size:	3188 bp
RefSeq ORF:	1614 bp
Locus ID:	209446
UniProt ID:	Q64092
Cytogenetics:	X 3.5 cM
MW:	58.2 kDa
Gene Summary:	Transcription factor that specifically recognizes and binds E-box sequences (5'-CANNTG-3') (PubMed:16936731). Efficient DNA-binding requires dimerization with itself or with another MiT/TFE family member such as TFEB or MITF (PubMed:16936731). In association with TFEB, 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 (PubMed:16936731). Specifically recognizes the MUE3 box, a subset of E-boxes, present in the immunoglobulin enhancer (By similarity). It also binds very well to a USF/MLTF site (By similarity). May regulate lysosomal positioning in response to nutrient deprivation by promoting the expression of PIP4P1 (PubMed:29146937).[UniProtKB/Swiss-Prot Function]