

Product datasheet for **MG222642**

Tfe3 (NM_001105196) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tfe3 (NM_001105196) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tfe3
Synonyms:	bHLHe33; F830016E06Rik; Tcfe3; Tfe-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222642 representing NM_001105196
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTCATGCAGCCGAGCCAGCTCGGGACGCCGTAGAGGCCAGCGCGGAGGGCCCTCGAGCCGTGTTC
 TGCTATTGGAAGAGCGCAGGCCAGCTGAGTCGGCCAGCTGCTCAGCCTGAATTCCTTGCTCCGGAATC
 CGGGATTGTTGCTGATATCGAGTTAGAAAAATCCTCGATCCTGACAGCTTCTACGAGCTCAAAAGCCAA
 CCCCTATCCCTCCGCTCCAGCCTCCAATACTGCAGGCCACACCGACCACCCAGCTACACTCTCTG
 CGTCGTCTTTCGAGGGGCTCCCGACCCCTGCCATGTCATCTTCTTATCACGGGTCTTGCTGCGTCA
 GCAGCTTATGAGGGCCAGGCTCAGGAACAGGAGAGGCGTGAGCGGGGGAACAGGCAGCGGCCGCTCCC
 TCCCCAGCCCTGCGCCCGCTCACCAGCCATCTCTGTGATTGGCGTGTCTGCTGGTGGCCACACTGA
 GTCGTCCACCTCTGCTCAGGTGCCAGGGAGGTACTCAAGGTTACAGCCACCTCGAGAACCCTACAGC
 CTACCACCTGCAGCAAGCTCGCCGGCAGCAGGTCAAACAGTACTTGTCTACCACACTTGGGCCAAGCTG
 GCTTCCCAGGCTCTACCCACACCAGGGCCTTCCAGTGCCAGCCACTTCTGCCCTGAAACTGCTC
 ATGCCACCGGTCTACAGGCAGTCTCCTAACAGCCCCATGGCGCTGCTCACCATTGGGTCCAGCTCAGA
 AAAGGAGCTGCCGGTGTCTGAAATCTACTTGATGTGTACAGCAGTCAGGGAGTGGCTACCCAGCTATC
 ACCGTCAGCAATTCCTGTCCAGCTGAGCTGCCTAACATCAAACCGGAGATCTCCGAAACCAGGCAAAGG
 CCCTTTTGAAGGAGCGACAGAAGAAACAATCACAACCTAATTGAACGACGCAGGCGATTCAACATTAA
 CGATAGGATCAAAGAGCTGGGCACCCTCATCCCAAGTCCAATGATCCGGAGATGCGCTGGAACAAGGGC
 ACCATCCTGAAGGCATCTGTGGATTACATCCGCAATTACAGAAGGAACGCAACGCTCCAAGACCTGG
 AGAGCCGACGCGGTCCCTGGAACAAGCAACCGAAGCCTGCAGCTCCGGATTGAGGAGCTAGAATGAGC
 GGCCAGATCCATGGTCTGCCAGTCCCTCCCAACCCAGGACTGCTCTCCCTAACCCAGAGTTCGGTCTCT
 GACAGCCTCAAGCCAGAACAGCTGGACATTGAGGAGGAGGGCAGGCCATGACACAACGTTCCATGTATCGG
 GAGGACCTGCCAGAACGCTCCTCCACAACAGCCTCCAGCACCACCTTCGGATGCCCTTCTGGACCTACA
 CTTTCCCAGCGACCACTTGGGAGACCTGGGGACCCCTTCCACCTAGGGCTAGAGGACATTCTGATGGAG
 GAGGAGGGGATGGTGGGAGGACTGTGAGGGGTGCCCTGTCCCACTGCGGGCTGCTTCTGACCCCTGC
 TTTCTTTCAGTATCCCGGCTGTTTCCAAGGCCAGCAGCCCGCTAGCAGCTTACAGATGGAAGAGGAGTC
 C

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG222642 representing NM_001105196
 Red=Cloning site Green=Tags(s)

MSHAAEPARDAVEASAEGPRAVFLLEERRPAESAQLLSLNSLLPESGIVADIELENILDPSDFYELKSQ
 PLSLRSSLPIQLATPTTPATLSASSSAGSRTPAMSSSSRVLLRQQLMRAQAQEQRERRREQAAAAP
 FPPSPAPASPAISVIGVSAGGHTLSRPPPAQVPREVLKVQTHLENPTRYHLQQARRQVKQYLSTTLGPKL
 ASQALTPPPGPSSAQPLPAPETAHATGPTGSAPNSPMALLTIGSSSEKELPVSGNLLDVYSSQGVATPAI
 TVNSCPAELPNIKREISETAKALLKERQKKNHNLIERRRRFNINDRIKELGTLIPKSNPPEMRWNKG
 TILKASVDYIRKLQKEQQRSKDLESRQRSLEQANRSLQLRIQELELQAQIHGLPVPPNPGLLSLTTSSVS
 DSLKPEQLDIEEEGRPSTTFHVSGGPAQNAPPQPPAPPDALLDLHFPSDHLGDLGDPFHLGLEDILME
 EEGMVGGLSGGALSPLRAASDLLSSVSPAVSKASSRRSSFMEEEES

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


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:

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

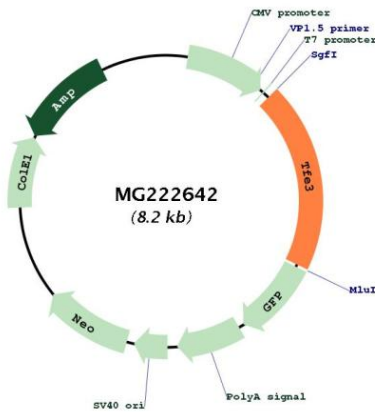
Locus ID: 209446

UniProt ID: [Q64092](#)

Cytogenetics: X 3.5 cM

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]

Product images:



Circular map for MG222642