

Product datasheet for **MR230059**

Tfe3 (NM_001271489) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tfe3 (NM_001271489) 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:

>MR230059 representing NM_001271489
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCATCTTCTTCATCACGGGTCTTGCTGCGTCAGCAGCTTATGAGGGCCAGGCTCAGGAACAGGAGA
 GCGTGAGCGGGCGGAACAGGCAGCGGCCGCTCCCTTCCCAGCCCTGCGCCCGCTCACCAGCCATCTC
 TGTGATTGGCGTGTCTGCTGGTGCCACACACTGAGTCGTCACCTCCTGCTCAGGTGCCAGGGAGGTA
 CTCAAGGTTTCAGACCCACCTCGAGAACCCTACACGCTACCACCTGCAGCAAGCTCGCCGGCAGCAGGTCA
 AACAGTACTTGTCTACCACACTTGGGCCAAGCTGGCTTCCCAGGCTCTCACCCACCACCAGGGCCTTC
 CAGTGCCAGCCACTTCTGCCCTGAACTGCTCATGCCACCGTCTACAGGCAGTGTCTTAACAGC
 CCCATGGCGCTGCTACCATTGGGTCCAGCTCAGAAAAGGAGATTGATGATGTCATTGATGAGATCATCA
 GCCTGGAGTCCAGTTACAACGATGAGATGCTCAGCTATCTTCCAGGAGGCACTGCAGGGTGCAGCTCCC
 CAGCACGCTGCCGGTGTCTGAAATCTACTTGATGTGTACAGCAGTCAGGGAGTGGTACCCAGCTATC
 ACCGTCAGCAATTCCTGTCCAGCTGAGCTGCCTAACATCAAACGCGAGATCTCCGAAACCGAGGCAAGG
 CCCTTTTGAAGGAGCGACAGAAGAAAGCAATCAACCTAATTGAACGACGCGAGGCGATTCAACATTAA
 CGATAGGATCAAAGAGCTGGGCACCCTCATCCCAAGTCCAATGATCCGGAGATGCGCTGGAACAAGGGC
 ACCATCCTGAAGGCATCTGTGGATTACATCCGCAATTACAGAAGGAACAGCAACGCTCCAAAGACCTGG
 AGAGCCGGCAGCGGTCCCTGGAACAAGCCAACCGAAGCTGCAGCTCCGGATTGAGGAGCTAGAAGTCA
 GGCCAGATCCATGGTCTGCCAGTCCCTCCAACCCAGGACTGCTCTCCCTAACCCAGGATTCGGTCTCT
 GACAGCTCAAGCCAGAACAGCTGGACATTGAGGAGGAGGGCAGGCTAGCACACGTTCCATGTATCGG
 GAGGACCTGCCAGAACGCTCTCCACAACAGCTCCAGCACCTTCCGATGCCCTTCTGGACCTACA
 CTTTCCCAGCGACCACTTGGGAGACCTGGGGGACCCCTTCCACCTAGGGCTAGAGGACATTCTGATGGAG
 GAGGAGGGGATGGTGGGAGGACTGTGAGGGGTGCCCTGTCCCCACTGCGGGCTGCTTCTGACCCCTGC
 TTTCTTCACTATCCCGGCTGTTTCCAAGGCCAGCAGCCGCGTAGCAGCTTCAAGAGGAGTGC
 C

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230059 representing NM_001271489
 Red=Cloning site Green=Tags(s)

MSSSSSRVLLRQQLMRAQAQEERRERREQAAAAPFSPAPASPAISVIGVSAGGHTLSRPPPAQVPREV
 LKVQTHLENTRYHLQARRQVKQYLSTTLGPKLASQALTPPPGPSSAQPLPAPETAHATGPTGSAPNS
 PMALLTIGSSSEKEIDDVIDEIIISLESSYNDEMLSYLPGGTAGLQPLSTLPVSGNLLDVYSSQGVATPAI
 TVNSCPAELPNIKREISETAKALLKERQKKNHNLIERRRRFNINDRIKELGTLIPKSNPEMRWNKG
 TILKASVDYIRKLQKEQQRSKDLESRQRSLEQANRSLQLRIQELELQAQIHGLPVPPNPGLLSLTSSVS
 DSLKPEQLDIEEEGRPSTTFHVS GGPAQNAPPQPPAPPDALLDLHFPSDHLGDLGDPFHLGLEDILME
 EEGMVGGLSGGALSPLRAASDPLLSVSPAVSKASSRRSSFMEEEES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

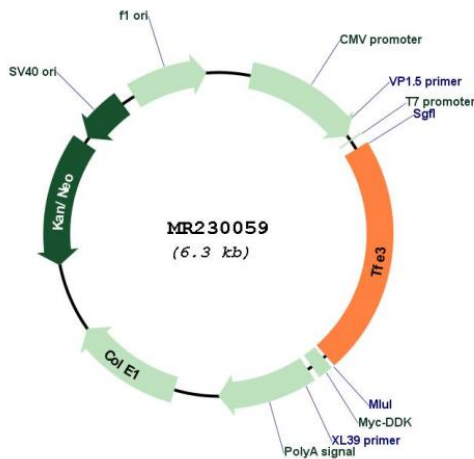
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001271489

ORF Size:

1401 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:	<u>NM_001271489.1</u> , <u>NP_001258418.1</u>
RefSeq Size:	3274 bp
RefSeq ORF:	1404 bp
Locus ID:	209446
UniProt ID:	<u>Q64092</u>
Cytogenetics:	X 3.5 cM
MW:	51 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]