

## Product datasheet for **MR225784**

### **Tcf3 (NM\_001164151) Mouse Tagged ORF Clone**

#### **Product data:**

<b>Product Type:</b>	Expression Plasmids
<b>Product Name:</b>	Tcf3 (NM_001164151) Mouse Tagged ORF Clone
<b>Tag:</b>	Myc-DDK
<b>Symbol:</b>	Tcf3
<b>Synonyms:</b>	A1; AA408400; ALF2; AW209082; bHLHb21; E2A; E12; E12/E47; E47; KA1; ME2; Pan1; Pan2; TCF-3; Tcfe2a
<b>Vector:</b>	pCMV6-Entry (PS100001)
<b>E. coli Selection:</b>	Kanamycin (25 ug/mL)
<b>Cell Selection:</b>	Neomycin



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ORF Nucleotide  
Sequence:

>MR225784 representing NM\_001164151  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGATGAACCACTCTCAGAGAATGGCACCCGTGGGCTCTGACAAGGAAGTGAAGTACCTCCTGGACTTCA  
 GCATGATGTTCCCGCTACCTGTGGCCAATGGGAAGAGCCGGCCCGCTCCCTCGGGGAACCCAGTTTGC  
 AGGCTCAGGACTGGAGGACCGACCCAGCTCAGGCTCCTGGGGCAGCAGTGACCAGAACAGTTCTTCTTT  
 GACCTAGCCGGACATACAGCGAAGGTGCCACTTCAGTGACTCCACAGCAGCCTGCCGCTTCCACGT  
 TCCTAGGAGCTGGGCTTGGAGGCAAGGGCAGTGAGCGAATGCCTATGCCACCTTTGGGAGAGACCCAG  
 TGTTGGCACCTTGAGTCAGGCTGGCTTCTGCCAGGTGAGCTGAGCCTCAGCAGTCCCGGCCACTGTCC  
 CCATCGGGCATCAAGAGCAGTCCAGTATTACCCCTCATTCCCAGCAACCCTCGTCGGAGAGCTGCAG  
 ATGGTGGCTGGATACTCAGCCGAAGAAGTCCGGAAGTTCCGCTGGTCTCCCTTCTCGGTGTATCC  
 GCCAGCTCAGGTGACAGCTACAGCAGGATGCTGCAGCCTACCCCTCCGCAAGACCCAGCAGCGCT  
 TACCCCTCCCTTCTAGTGGCAGATGGCAGCCTGCACCATCAGCTGAGCTCTGGAGTACGCCTAGCC  
 AGGTGGGCTTTGGGCCATGCTAGGTGACGGCTTCCCTCTGCCCCTGCACCGGCAGCAGCTCCGT  
 GGGCAGTGGTACCTTTGGGGCTCCAGCAGCAGGATCGCATGGGCTACCAGCTGCATGGATCTGAGGT  
 AATGGCTCGTCCAGCTGTATCCAGCTTTTCGGCTGCCCTGGCACTTACAGTGGGACTTCCGGCCACA  
 CGCCCCGTGTGAGTGGGGCCGAGCTGAAAGCCTCCTAGGCACCCGAGGGACTACAGCCAGCAGCTCAGG  
 GGATGCCCTTGGGAAGGCACTGGCTCGATCTACTCCCGGATCACTCCAGCAATAATTTCTCACCTAGC  
 CCCTCAACGCCTGTGGGTTACCCAGGGCTGCCAGGGACATCACAGTGGCCCCGGCAGGAGCGCCCA  
 GTGCCTTATCCCCAACTACGATGCAGTCTCCATGGCTGAGCAAGATGGAGGACCGCTTGGACGAGGC  
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 GCACTGACCACGAGCTTACCGGCCATGCTACTGGGCGGGCGCATGCCGGCTGGTCGGGGGAAGCC  
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 TTCCCTCCCTGACCTCTCACAGAGACCTCCCGACTCCTATAGTGGACTCGGGAGGGCAGGCACAACAGC  
 GGTGCCAGCGAGATCAAGCGGGAGGAGAAAGAGGATGAGGAAATCGCATCAGTAGCCGACGCCGAAGAGG  
 ACAAGAAGGACCTGAAGTCCCACGCACGCGCACCAGCAGTACAGATGAGGTGCTGTCCCTGGAGGAGAA  
 GGACCTGAGGGACCGGGAGAGCGTATGGCCAATAACGCTCGGGAGCGGTGCGCGTGGGGACATTAAC  
 GAGGCCTTCCGGAGCTGGGCCCATGTGCCAGCTGCACCTCAAGTCGGATAAGGCGCAGACCAAGCTGC  
 TCATCCTGCAGCAGGCGGTGCAGGTATCCTGGGCTGGAGCAGCAGGTGCGAGAACGCAACCTGAACCC  
 CAAAGCAGCCTGCTTGAAGCGGAGGGAGGAGGAGAAGGTGTCTGGCGTGGTCGGGGACCCACAGTGCC  
 CTGTACGCGCCACCCGGGCTGGGTGAGGCCACAACCCAGCCGGGCACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225784 representing NM\_001164151  
 Red=Cloning site Green=Tags(s)

MMNQSQRMAPVGSDELSDLLDFSMFPLPVANGKSRPASLGGTQFAGSGLEDRPSSGSSWGSSDQNSSSF  
 DPSRTYSEGAHFSDSHSSLPPSTFLGAGLGGKGSERNAYATFGRDTSVGTLSQAGFLPGELSLSSPGPLS  
 PSGIKSSSQYYPSFSPNRRRAADGGLDTQPKKVRKVPPLPSSVYPPSSGDSYSRDAAYPSAKTPSSA  
 YPSPFYVADGSLHPSAELWSTPSQVGFPGMLGDGSSPLPLAPGSSVSGSGTFGGLLQQDRMGYQLHGSEV  
 NGS�PAVSSFSAAPGTYSHTPPVSGAAESELLGTRGTTASSGDALGKALASIYSPDHSSNNFSPS  
 PSTPVGSPQGLPGTSQWPRAGAPSALSPNYDAGLHGLSKMEDRLDEAIHVLRSHAVGTASDLHGLLPGHG  
 ALTTSFTGPMSSLGRRHAGLVGGSHPEEGLTSGASLLHNHASLPSQPSSLPDLQRPPDSYSLGRAGTTA  
 GASEIKREEKEDEEIASVADAEDKDLKVPRTSSTDEVLSLEEKDLRDRERMANNARERVRVDIN  
 EAFRELGRMCQLHLKSDKAQTKLLILQQAVQVILGLEQQVRENLNPKAACLRREEEKVSGVVGDPQLP  
 LSAHPGLGEAHNPAGHL

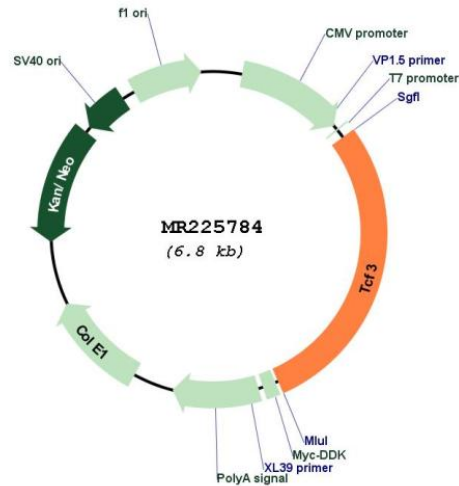
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001164151

**ORF Size:** 1944 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\\_001164151.1](#), [NP\\_001157623.1](#)

RefSeq Size: 3308 bp

RefSeq ORF: 1950 bp

Locus ID: 21423

UniProt ID: [P15806](#)

Cytogenetics: 10 39.72 cM

MW: 68 kDa

**Gene Summary:** Transcriptional regulator. Involved in the initiation of neuronal differentiation. Heterodimers between TCF3 and tissue-specific basic helix-loop-helix (bHLH) proteins play major roles in determining tissue-specific cell fate during embryogenesis, like muscle or early B-cell differentiation. Dimers bind DNA on E-box motifs: 5'-CANNTG-3'. Binds to the kappa-E2 site in the kappa immunoglobulin gene enhancer. Binds to IEB1 and IEB2, which are short DNA sequences in the insulin gene transcription control region.[UniProtKB/Swiss-Prot Function]