

## Product datasheet for **MG225789**

### **Tcf3 (NM\_001164153) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tcf3 (NM_001164153) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tcf3
Synonyms:	A1; AA408400; ALF2; AW209082; bHLHb21; E2A; E12; E12/E47; E47; KA1; ME2; Pan1; Pan2; TCF-3; Tcfe2a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG225789 representing NM\_001164153  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGATGAACCACTCTCAGAGAATGGCACCCGTGGGCTCTGACAAGAACTGAGTGACCTCCTGGACTTCA  
 GCATGATGTTCCCGCTACCTGTGGCCAATGGGAAGAGCCGGCCCGCTCCCTCGGGGAACCCAGTTTGC  
 AGGCTCAGGACTGGAGGACCCAGCCAGCTCAGGCTCCTGGGGCAGCAGTGACCAGAACAGTTCTTCTTT  
 GACCTAGCCGGACATACAGCGAAGGTGCCACTTCAGTGACTCCACAGCAGCCTGCCGCTTCCACGT  
 TCCTAGGAGCTGGGCTTGGAGGCAAGGGCAGTGAGCGAATGCCTATGCCACCTTTGGGAGAGACCCAG  
 TGTTGGCACCTTGAGTCAGGCTGGCTTCTGCCAGGTGAGCTGAGCCTCAGCAGTCCCGGCCACTGTCC  
 CCATCGGGCATCAAGAGCAGTCCAGTATTACCCCTCATTCCCAGCAACCCTCGTCGGAGAGCTGCAG  
 ATGGTGGCTGGATACTCAGCCGAAGAAGTCCGAAGGTTCCGCTGGTCTCCCTTCTCGGTGTATCC  
 GCCAGCTCAGGTGACAGCTACAGCAGGATGCTGCAGCCTACCCCTCCGCAAGACCCAGCAGCGCT  
 TACCCCTCCCTTCTAGTGGCAGATGGCAGCCTGCACCATCAGCTGAGCTCTGGAGTACGCCTAGCC  
 AGGTGGGCTTTGGGCCATGCTAGGTGACGGCTTCCCTCTGCCCTTGCACCGGGCAGCAGCTCCGT  
 GGGCAGTGGTACCTTTGGGGCCTCCAGCAGCAGGATCGCATGGGCTACCAGCTGCATGGATCTGAGGT  
 AATGGCTCGTCCAGCTGTATCCAGCTTTTCGGCTGCCCTGGCACTTACAGTGGGACTTCCGGCCACA  
 CGCCCCGTGTGAGTGGGGCCGAGCTGAAAGCCTCCTAGGCACCCGAGGGACTACAGCCAGCAGCTCAGG  
 GGATGCCCTTGGGAAGGCACTGGCTCGATCTACTCCCGGATCACTCCAGCAATAATTTCTCACCTAGC  
 CCCTCAACGCCTGTGGGTTACCCAGGGCTGCCAGGGACATCACAGTGGCCCCGGCAGGAGCGCCCA  
 GTGCCCTATCCCCAACTACGATGCAGGTCTCCATGGCCTGAGCAAGATGGAGGACCGCTTGGACGAGG  
 CATCCATGTCCTGCGAAGCCACGCTGTTGGCACCGCTAGCGATCTCCATGGGCTTTTGCCTGGCCATGGC  
 GCACTGACCACGAGCTTACCCGGCCCATGCTACTGGGCGGGCGCATGCCGGCTGTGTCGGGGGAAGCC  
 ATCCTGAGGAGGGCTCACAAGTGGGGCAGTCTTTTGCATAACCATGCCAGCCTCCCAGCCAGCCAG  
 TTCCCTCCCTGACCTCTCACAGAGACCTCCCGACTCCTATAGTGGACTCGGGAGGGCAGGCACAACAGCG  
 GGTGCCAGCGAGATCAAGCGGGAGGAGAAAGAGGATGAGGAAATCGCATCAGTAGCCGACCCGAAGAGG  
 ACAAGAAGGACCTGAAGGTCCCACGCACGCGCACCAGCAGTACAGATGAGGTGCTGTCCCTGGAGGAGAA  
 GGACCTGAGGGACCGGGAGAGGCGTATGGCCAATAACGCTCGGGAGCGGGTGCCTGCGGGACATTAAC  
 GAGGCTTCCGGGAGCTGGGCCGATGTCCAGCTGCACCTCAAGTCGGATAAGGCGCAGACCAAGCTGC  
 TCATCCTGCAGCAGGCGGTGCAGGTTCCTGGGCTGGAGCAGCAGGTGCGAGAACGCAACCTGAACCC  
 CAAAGCAGCCTGCTTGAAGCGGAGGGAGGAGGAGAAGGTGCTGGCGTGGTGGGGACCCACAGTCCCC  
 CTGTACGCGCCACCCGGGCTGGGTGAGGCCACAACCCAGCCGGGCACCTG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

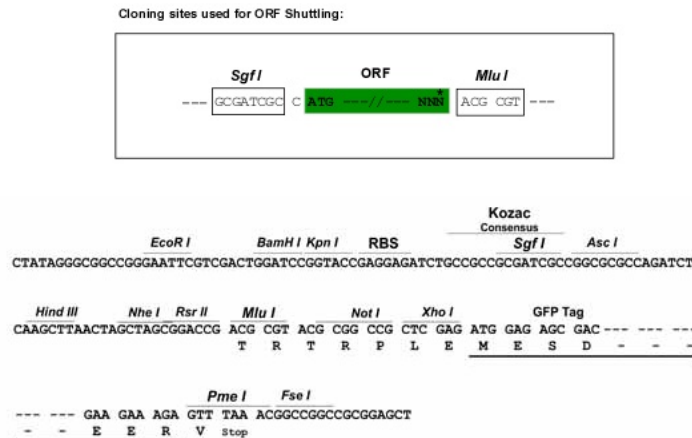
>MG225789 representing NM\_001164153  
 Red=Cloning site Green=Tags(s)

MMNQSQRMAPVGSDELSDLLDFSMFPLPVANGKSRPASLGGTQFAGSGLEDRPSSGWSGSSDQNSSSF  
 DPSRTYSEGAHFSHSSLPPSTFLGAGLGGKGSERNAYATFGRDTSVGTLSQAGFLPGELSLSSPGPLS  
 PSGIKSSQYYPFSPNRRRAADGGLDTQPKVVRKVPPLPSSVYPPSSGDSYSDAAA YPSAKTPSSA  
 YPSPFYVADGSLHPSAELWSTPSQVGFPM LGDSSPLPLAPGSSSVGSGTFGGLQQQDRMGYQLHGSEV  
 NGLSPAVSSFSAPGTYSGTSGHTPPVSGAAAESLLGTRGTTASSSGDALGKALASIYSPDHSSNNFSPS  
 PSTPVGSPQGLPGTSQWPRAGAPSALSPNYDAGLHGLSKMEDRLDEAIHVL RSHAVGTASDLHGLLPGHG  
 ALTTSFTGPMSLGGRHAGLVGGSHPEEGLTSGASLLHNHASLPSQPSLPDL SQRPPDSYSLGRAGTTA  
 GASEIKREEKEDEEIASVADAEDKDLKVPRTSSTDEVLSLEEKDLRDRERRMANNARERVRVDIN  
 EAFRELGRMCQLHLKSDKAQTLLILQQAVQVILGLEQQVREERNLNPKAACLKRREEEKVSGVVGDPQLP  
 LSAHPGLGEAHPAGHL

**TRTRPLE** – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001164153

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\\_001164153.1](#), [NP\\_001157625.1](#)

RefSeq Size: 3305 bp

RefSeq ORF: 1947 bp

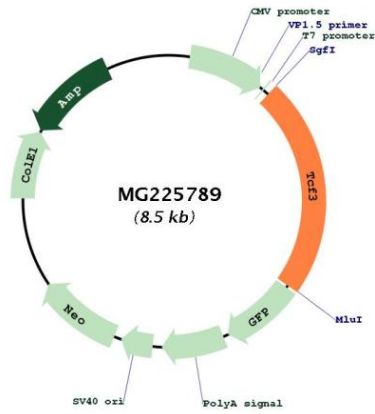
Locus ID: 21423

Cytogenetics: 10 39.72 cM

**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]

**Product images:**



Circular map for MG225789