

## Product datasheet for **RG224345**

### **TCF4 (NM\_001083962) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TCF4 (NM_001083962) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TCF4
Synonyms:	bHLHb19; CDG2T; E2-2; FECD3; ITF-2; ITF2; PTHS; SEF-2; SEF2; SEF2-1; SEF2-1A; SEF2-1B; SEF2-1D; TCF-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG224345 representing NM\_001083962  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCATCACCAACAGCGAATGGCTGCCTTAGGGACGGACAAAGAGCTGAGTGATTTACTGGATTTCACTG  
CGATGTTTTACCTCCTGTGAGCAGTGGGAAAAATGGACCAACTTCTTTGGCAAGTGGACATTTTACTGG  
CTCAAATGTAGAAGACAGAAGTAGCTCAGGGTCTGGGGGAATGGAGGACATCCAAGCCCGTCCAGGAAC  
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CTTTTGTCAATCCAGAATACAAAGTAAAAAGAAAGGGGCTCATACTCATCTTATGGGAGAGAATCAAA  
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TTCCCTAGCTCCTTCTCATGCAAGATGGCCATCACAGCAGTGACCCTTGGAGCTCCTCCAGTGGGATGA  
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GCATCCACATGAACGTTTGGCTATCCATCACACTCCTCAGCAGACATCAATCCAGTCTTCTCCGATG  
TCCACTTTCCATCGTAGTGGTACAAACATTACAGCACCTTCTCCTGTACGCCTCCTGCCAACGGGACAG  
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ACTTGCTCGATCTATTCTCCAGATCACACTAACACAGCTTTTCATCAAACCTTCAACTCCTGTTGGC  
TCTCCTCCATCTCTCAGCAGGCACAGCTGTTTGGTCTAGAAATGGAGGACAGGCCTCATCGTCTCCTA  
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CAAGAAGGATATCAAATCAATTACTAGGTCAAGATCTAGCAATAATGACGATGAGGACCTGACACCAGAG  
CAGAAGGCAGAGCGTGAAGAGGAGCGGAGGATGGCCAACAATGCCGAGAGCGTCTGCGGGTCCGTGACA  
TCAACGAGGCTTTCAAAGAGCTCGGCCGATGGTGACGCTCCACCTCAAGAGTGACAAGCCCGAGACCAA  
GCTCCTGATCCTCCACCAGGCGGTGGCCGTCATCCTCAGTCTGGAGCAGCAAGTCCGAGAAAGGAATCTG  
AATCCGAAAGCTGCGTGTCTGAAAAGAAGGGAGGAAGAGAAGGTGCTCCTCAGAGCCTCCCCTCTCTCCT  
TGGCCGGCCACACCCTGGAATGGGAGACGCATCGAATCATATGGGACAGATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

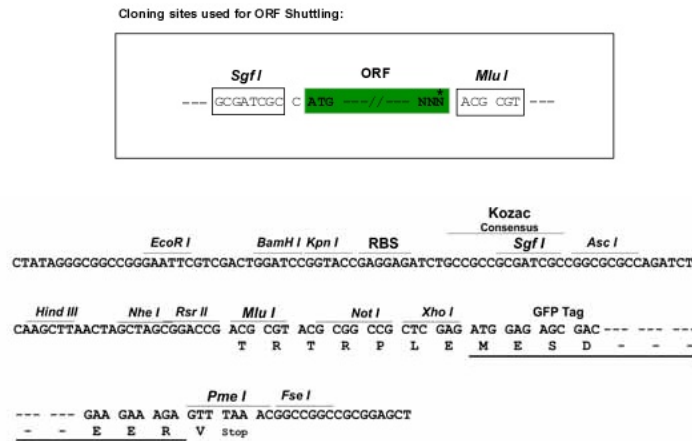
Protein Sequence: >RG224345 representing NM\_001083962  
 Red=Cloning site Green=Tags(s)

MHHQQRMAALGTDKELSDLLDFSAMFSPVSSGKNGPTSLASGHFTGSNVEDRSSSGSWGNGGHPSPSRN  
 YGDGTPYDHMTSRDLGSHDNLSPPFVNSRIQSKTERGSYSSYGRESNLQGCHQQSLGDDMDMGNPGLS  
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 FPSSFFMQDGHHSDDPWSSSSGMNQPAGYAGMLGNSSHIPQSSSYCSLHPHERLSYPSSHSSADINSSLPPM  
 STFHRSGTNHYSTSSCTPPANGTDSIMANRSGAAGSSQTGDALGKALASIYSPDHTNNSFSSNPSTPVG  
 SPPSLSAGTAVWSRNGQASSSPNYEGLHSLQSRIEDRLERLDDAIHVLNRHAVGPSTAMPGGHGMHG  
 IIGPSHNGAMGGLGSGYGTLLSANRHSLMVGTHREDGVALRGSHSLLPNQVVPVQLPVQSATSPDLNPP  
 QDPYRGMPPGLQGQSVSSGSSEIKSDDEGDENLQDTKSSDKKLDKDKDIKSITRSRNNDDDELTP  
 QKAEREKERRMANNARERLRVRDINEAFKELGRMVQLHLKSDKPQTKLLILHQAVAVILSLEQQVRE  
 RNLNPKAACLRKREEEKVSSEPPPLSLAGPHPGMGDASNHMGQM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001083962

ORF Size: 2013 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001083962.2](#)

**RefSeq Size:** 8332 bp

**RefSeq ORF:** 2016 bp

**Locus ID:** 6925

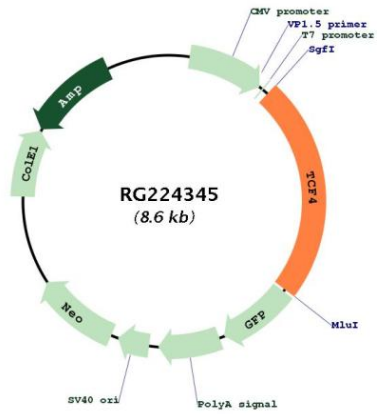
**UniProt ID:** [P15884](#)

**Cytogenetics:** 18q21.2

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors

**Gene Summary:** This gene encodes transcription factor 4, a basic helix-loop-helix transcription factor. The encoded protein recognizes an Ephrussi-box ('E-box') binding site ('CANNTG') - a motif first identified in immunoglobulin enhancers. This gene is broadly expressed, and may play an important role in nervous system development. Defects in this gene are a cause of Pitt-Hopkins syndrome. In addition, an intronic CTG repeat normally numbering 10-37 repeat units can expand to >50 repeat units and cause Fuchs endothelial corneal dystrophy. Multiple alternatively spliced transcript variants that encode different proteins have been described. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RG224345