

## Product datasheet for **RG232892**

### **TCF4 (NM\_001243234) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TCF4 (NM_001243234) 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)



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**ORF Nucleotide Sequence:**

>RG232892 representing NM\_001243234  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTACTGCGCATACACAATCCCGGCATGGGCGCAACTCTTTGATGTACTACTATAATGGGAAAGCGG  
 TCTATGCTCCATCAGCAAGCACTGCCACTACAATAGGGACTCGCAGGCTATCCTTCTCCAAACCAGC  
 AACCCAGCACTTTCCCTAGCTCCTTCTTTCATGCAAGATGGCCATCACAGCAGTGACCCCTGGAGCTCTCC  
 AGTGGGATGAATCAGCCTGGCTATGCAGGAATGTTGGGCAACTCTTCTCATATCCACAGTCCAGCAGCT  
 ACTGTAGCCTGCATCCACATGAACGTTTGGAGCTATCCATCACACTCCTCAGCAGACATCAATTCCAGTCT  
 TCCTCCGATGTCCACTTCCATCGTAGTGGTACAAACCATTACAGCACCTCTTCTGTACGCTCCTGCC  
 AACGGGACAGACAGTATAATGGCAAATAGAGGAAGCGGGCAGCCGCAGCTCCCAGACTGGAGATGCTC  
 TGGGAAAGCACTTGCTTCGATCTATTCTCCAGATCACACTAACACAGCTTTTCATCAAACCTTCAAC  
 TCCTGTTGGCTCTCTCCATCTCTCAGCAGGCACAGCTGTTTGGTCTAGAAATGGAGGACAGGCTCA  
 TCGTCTCCTAATTATGAAGGACCCTTACACTCTTTGCAAAGCCGAATTGAAGATCGTTTAGAAAGACTGG  
 ATGATGCTATTATGTTCTCCGGAACCATGCAGTGGGCCATCCACAGCTATGCCTGGTGGTTCATGGGGA  
 CATGCATGGAATCATTGGACCTTCTATAATGGAGCCATGGGTGGTCTGGGCTCAGGGTATGGAACCGGC  
 CTTCTTTCAGCCAACAGACATTCACATGAGTGGGGACCCATCGTGAAGATGGCGTGGCCCTGAGAGGCA  
 GCCATTCTCTTTCGCAAACCAGGTTCCGGTCCACAGCTTCTGTCCAGTCTGCGACTTCCCCTGACCT  
 GAACCCACCCAGGACCTTACAGAGGCATGCCACCAGGACTACAGGGCAGAGTGTCTCTCTGGCAGC  
 TCTGAGATCAAATCCGATGACGAGGGTATGAGAACCTGCAAGACACGAAATCTCGGAGGACAAGAAAT  
 TAGATGACGACAAGAAGGATATCAAATCAATTACTAGTCAAGATCTAGCAATAATGACGATGAGGACCT  
 GACACCAGAGCAGAAGGCAGAGCGTGAGAAGGAGCGGAGGATGGCCAACAATGCCCGAGAGCGCTGCGG  
 GTCCTGTACATCAACGAGGCTTTCAAAGAGCTCGGCCGATGGTGCAGCTCCACCTCAAGAGTGACAAGC  
 CCCAGACCAAGCTCCTGATCCTCCACCAGGCGGTGGCCGTATCCTCAGTCTGGAGCAGCAAGTCCGAGA  
 AAGGAATCTGAATCCGAAAGCTGCGTGTCTGAAAAGAAGGGAGGAAGAGAAGGTGTCTCAGAGCTCCC  
 CCTCTCTCTTGGCCGCCACACCCTGGAATGGGAGACGCATCGAATCACATGGGACAGATG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG232892 representing NM\_001243234  
 Red=Cloning site Green=Tags(s)

MYCAYTIPGMGGNSLMYYNGKAVYAPSASTADYNRDSPGYPSSKPATSTFPSSFFMQDGHSSDPWSSS  
 SGMNQPGYAGMLGNSSHIPQSSSYCSLHPHERLSYPSSADINSSLPPMSTFHRSGTNHYSTSSCTPPA  
 NGTDSIMANRSGAAGSSQTGDALGKALASIYSPDHTNNSFSSNPSTPVGSPPSLSAGTAVWSRNGGQAS  
 SSPNYEGLHSLQSRIEDRLERLDDAIHVLNRHAVGPSTAMPGGHGMHGIIGPSHNGAMGGLGSGYGTG  
 LLSANRHSLMVGTHREDGVALRGSLSLLPNQVPVQPLPVQSATSPDLNPPQDPYRGMPPGLQGQSVSSGS  
 SEIKSDDEGDENLQDTKSSDKLDDDKDIKSI TRSRSSNDDDEL TPEQKAEREKERRMANNARERLR  
 VRDINEAFKELGRMVQLHLKSDKPQTKLLILHQAVAVILSLEQQVREERNLNPKAACLKRREEEKVSSEPP  
 PLSLAGPHPGMGDASNHMGQM

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul



<b>ACCN:</b>	NM_001243234
<b>ORF Size:</b>	1533 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001243234.2</a>
<b>RefSeq Size:</b>	7361 bp
<b>RefSeq ORF:</b>	1536 bp
<b>Locus ID:</b>	6925
<b>UniProt ID:</b>	<a href="#">P15884</a>
<b>Cytogenetics:</b>	18q21.2
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
<b>Gene Summary:</b>	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]