

## Product datasheet for **RG233064**

### TCF4 (NM\_001243230) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TCF4 (NM_001243230) 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:

>RG233064 representing NM\_001243230  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCAACGGGCAAAAACGAACTGAACTGTTTCAGGCTTCAGATTGTAACGACGATCTGAGGAAAAATGAGATGT  
TTTCACCTCCTGTGAGCAGTGGGAAAAATGGACCAACTTCTTTGGCAAGTGGACATTTTACTGGCTCAAA  
TGTAGAAGACAGAAGTAGCTCAGGGTCCTGGGGGAATGGAGGACATCCAAGCCCGTCCAGGAACTATGGA  
GATGGGACTCCCTATGACCACATGACCAGCAGGGACCTTGGGTACATGACAATCTCTCTCCACCTTTG  
TCAATTCCAGAATACAAAGTAAAACAGAAAGGGGCTCATACTCATCTTATGGGAGAGAATCAAACCTTACA  
GGGTTGCCACCAGCAGAGTCTCCTTGGAGGTGACATGGATATGGGCAACCCAGGAACCTTTGCCCCACC  
AAACCTGGTTCCAGTACTATCAGTATTCTAGCAATAATCCCGAAGGAGGCCTTTCACAGTAGTGCCA  
TGGAGGTACAGACAAAGAAAGTTCGAAAAGTTCCTCCAGGTTTGGCATCTTCAGTCTATGCTCCATCAGC  
AAGCACTGCCACTACAATAGGGACTCGCCAGGCTATCCTTCCTCAAACCCAGCAACCAGCACTTTCCCT  
AGCTCCTTCTTATGCAAGATGGCCATCACAGCAGTGACCCTTGGAGCTCCTCCAGTGGGATGAATCAGC  
CTGGCTATGCAGGAATGTTGGGCAACTTCTCATATTCCACAGTCCAGCAGCTACTGTAGCCTGCATCC  
ACATGAACGTTTGGAGCTATCCATCACACTCCTCAGCAGACATCAATTCCAGTCTTCTCCGATGTCCACT  
TTCCATCGTAGTGGTACAAACATTACAGCACCTTCTCCTGTACGCCTCCTGCCAACGGGACAGACAGTA  
TAATGGCAAAATAGAGGAAGCGGGCAGCCGGCAGCTCCCAGACTGGAGATGCTCTGGGAAAAGCACTTGC  
TTGCATCTATTCTCAGATCACACTAACACAGCTTTTCATCAAACCTTCAACTCCTGTTGGCTCTCCT  
CCATCTCTCAGGCACAGCTGTTTGGTCTAGAAATGGAGGACAGGCCTCATCGTCTCCTAATTATGAAG  
GACCCTTACACTCTTTGCAAAGCCGAATTGAAGATCGTTTAGAAAGACTGGATGATGCTATTCTATGTTCT  
CCGGAACCATGCAGTGGGCCATCCACAGCTATGCCTGGTGGTCATGGGACATGCATGGAATCATTGGA  
CCTTCTCATAATGGAGCCATGGGTGGTCTGGGCTCAGGGTATGGAACCGGCCTTCTTTCAGCCAACAGAC  
ATTCACCTCATGGTGGGACCCATCGTGAAGATGGCGTGGCCCTGAGAGGCAGCCATTCTCTTCTGCCAAA  
CCAGGTTCCGGTTCACAGCTTCTGTCCAGTCTGCGACTTCCCCTGACCTGAACCCACCCAGGACCCCT  
TACAGAGGCATGCCACCAGGACTACAGGGCAGAGTGTCTCCTCTGGCAGCTCTGAGATCAAATCCGATG  
ACGAGGGTATGAGAACCTGCAAGACACGAAATCTTCGGAGGACAAGAAATTAGATGACGACAAGAAGGA  
TATCAAATCAATTACTAGCAATAATGACGATGAGGACCTGACACCAGAGCAGAAGGCAGAGCGTGAGAAG  
GAGCGGAGGATGGCCAACAATGCCCGAGAGCGTCTGCGGGTCCGTGACATCAACGAGGCTTCAAGAGC  
TCGGCCGCATGGTGCAGCTCCACCTCAAGAGTGACAAGCCCAGACCAAGCTCCTGATCCTCCACCAGGC  
GGTGGCCGTCATCCTCAGTCTGGAGCAGCAAGTCCGAGAAAGGAATCTGAATCCGAAAGTGCCTGTCTG  
AAAAGAAGGGAGGAAGAGAAGGTGTCCTCAGAGCCTCCCCTCTCTCCTTGGCCGGCCACACCCCTGGAA  
TGGGAGACGCATCGAATCACATGGGACAGATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG233064 representing NM\_001243230  
 Red=Cloning site Green=Tags(s)

MQRAKTELFRLQIVTDDLKRNEMFSPVSSGKNGPTSLASGHFTGSNVEDRSSSGSWGNGGHPSPSRNYG  
 DGTPYDHMTSRDLGSHDNLSPFFVNSRIQSKTERGSYSSYGRESNLQGCHQQLLGGDMGMNPGTLSPT  
 KPGSQYYQYSSNNPRRRPLHSSAMEVQTKKVRKVPPGLPSSVYAPSASTADYNRDSPGYPSKPATSTFP  
 SSFFMQDGHSSDPWSSSSGMNQPGYAGMLGNSSHIPQSSSYCSLHPHERLSYPHSSADINSSLPPMST  
 FHRSGTNHYSTSSCTPPANGTDSIMANRSGAAGSSQTGDALGKALASIYSPDHTNNSFSSNPSTPVGSP  
 PSLSGTAVWSRNGGQASSSPNYEGLHSLQSRIEDRLERLDDAIHVLRNHAVGPSTAMPGGHGMHGIIG  
 PSHNGAMGGLGSGYGTGLLSANRHSLMVGTHREDGVALRGSHSLLPNQVPVQPLPVQSATSPDLNPPQDP  
 YRGMPPLGQGSVSSGSSEIKSDDEGDENLQDTKSSDKKLDKDKDIKSITSNNDDEDLTPAQKAREK  
 ERRMANNARELRVRDINEAFKELGRMVQLHLKSDKPQTKLLILHQAVAVILSLEQQVRERLNPKAACL  
 KRREEKVSSEPPPLSLAGPHPGMGDASNHMGMQ

TRTRPLE - GFP Tag - V

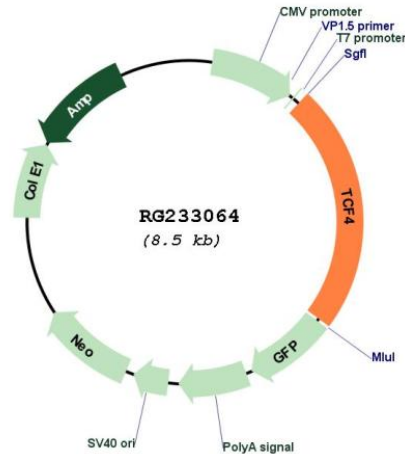
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_001243230

ORF Size: 1992 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\\_001243230.1](#), [NP\\_001230159.1](#)

RefSeq Size: 7793 bp

RefSeq ORF:	1995 bp
Locus ID:	6925
UniProt ID:	<a href="#">P15884</a>
Cytogenetics:	18q21.2
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
Gene Summary:	<p>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 &gt;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]</p>