

## Product datasheet for **SC118127**

### **TCF4 (NM\_003199) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TCF4 (NM_003199) Human Untagged Clone
Tag:	Tag Free
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:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC118127 sequence for NM\_003199 edited (data generated by NextGen Sequencing)

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ATGCATCACCAACAGCGAATGGCTGCCTTAGGGACGGACAAAGAGCTGAGTGATTTACTG
GATTTTCAGTGGCATGTTTTACCTCCTGTGAGCAGTGGGAAAAATGGACCAACTTCTTTG
GCAAGTGGACATTTTACTGGCTCAAATGTAGAAGACAGAAGTAGCTCAGGGTCTGGGGG
AATGGAGGACATCCAAGCCGTCAGGAACCTATGGAGATGGGACTCCCTATGACCACATG
ACCAGCAGGGACCTTGGGTACATGACAATCTCTCCACCTTTTGTCAATCCAGAATA
CAAAGTAAAACAGAAAGGGGCTCATACTCATCTTATGGGAGAGAATCAAACCTACAGGGT
TGCCACCAGCAGAGTCTCCTTGGAGGTGACATGGATATGGGCAACCCAGGAACCCCTTTCG
CCCACCAAACCTGGTTCCAGTACTATCAGTATTCTAGCAATAATCCCCGAAGGAGGCGCT
CTTCACAGTAGTGCCATGGAGGTACAGACAAAGAAAGTTCGAAAAGTTCTCCAGGTTTG
CCATCTTCAGTCTATGCTCCATCAGCAAGCACTGCCGACTACAATAGGGACTCGCCAGGC
TATCCTTCTCCAACCAGCAACCAGCACTTTCCCTAGCTCCTTCTTCATGCAAGATGGC
CATCACAGCAGTAGCCCTGGAGCTCCTCCAGTGGGATGAATCAGCCTGGCTATGCAGGA
ATGTTGGGCAACTCTTTCATATTCACAGTCCAGCAGCTACTGTAGCCTGCATCCACAT
GAACGTTTGAGCTATCCATCACACTCCTCAGCAGACATCAATTCCAGTCTTCTCCGATG
TCCACTTTCATCGTAGTGGTACAAACCATTACAGCACCTTCTCCTGTACGCTCCTGCC
AACGGGACAGACAGTATAATGGCAAATAGAGGAAGCGGGCAGCCGGCAGCTCCCAGACT
GGAGATGCTCTGGGAAAGCACTTGCTTCGATCTATTCTCCAGATCACACTAACAAACAGC
TTTTTCATCAAACCTTCAACTCCTGTTGGCTCTCCTCCATCTCTCTCAGCAGGCACAGCT
GTTTGGTCTAGAAATGGAGGACAGGCCTCATCGTCTCCTAATTATGAAGGACCCTTACAC
TCTTTGCAAAGCCGAATTGAAGATCGTTTAGAAAGACTGGATGATGCTATTTCATGTTCTC
CGGAACCATGCAGTGGGCCCATCCACAGCTATGCCTGGTGGTCAATGGGGACATGCATGGA
ATCATTGGACCTTCTCATAATGGAGCCATGGGTGGTCTGGGCTCAGGGTATGGAACCGGC
CTTCTTTCAGCCAACAGACATTCATCCTCATGGTGGGACCATCGTGAAGATGGCGTGGCC
CTGAGAGGCAGCCATTCTCTTCTGCCAAACCAGGTTCCGGTTCACAGCTTCTGTCCAG
TCTGCGACTTCCCCTGACCTGAACCCACCCAGGACCCTTACAGAGGCATGCCACCAGGA
CTACAGGGGCAGAGTGTCTCCTCTGGCAGCTCTGAGATCAAATCCGATGACGAGGGTGT
GAGAACCTGCAAGACACGAAATCTCGGAGGACAAGAAATTAGATGACGACAAGAAGGAT
ATCAAATCAATTACTAGCAATAATGACGATGAGGACCTGACACCAGAGCAGAAGGCAGAG
CGTGAGAAGGAGCGGAGGATGGCCAACAATGCCCGAGAGCGTCTGCGGGTCCGTGACATC
AACGAGGCTTTCAAAGAGCTCGGCCGCATGGTGCAGCTCCACCTCAAGAGTGACAAGCCC
CAGACCAAGCTCCTGATCCTCCACCAGGCGGTGGCCGTATCCTCAGTCTGGAGCAGCAA
GTCCGAGAAAGGAATCTGAATCCGAAAGCTGCGTGTCTGAAAAGAAGGGAGGAAGAGAAG
GTGTCCTCGGAGCCTCCCCTCTCCTTGGCCGGCCACACCCTGGAATGGGAGACGCA
TCGAATCACATGGGACAGATGTAA
    
```

Clone variation with respect to NM\_003199.2  
 1929 a=>g

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003199 unedited  
 GTTTTTGTATACGACTACTATAGGGCGGCNCGGAATTCGCACGAGGGGCGCGGGAGCG  
 GGGCAGGAGCAGGCGGCGGGTGGCGGCGGGTGTAGACATGAACGCCGCTCGGCGC  
 CGGCGGTGCACGGAGAGCCCTTCTCGCGCGGGCGGTTGTGTGATTTGCTAAAATG  
 CATCACCACAGCGAATGGCTGTCTTAGGGACGGACAAAGAGCTGAGTGATTTACTGGAT  
 TTCAGTGCGATGTTTTACCTCCTGTGAGCAGTGGAAAAATGGACCAACTTCTTTGGCA  
 AGTGGACATTTTACTGGCTCAAATGTAGAAGACAGAAGTAGCTCAGGGTCTGGGGAAAT  
 GGAGGACATCCAAGCCCGTCCAGGAATGGAGATGGGACTCCCTATGACCACATGACC  
 AGCAGGGACCTTGGGTACATGACAATCTCTCCACCTTTTGTCAATCCAGAATACAA  
 AGTAAAACAGAAAGGGGCTCATACTCATCTTATGGGAGAGAATCAAACCTACAGGGTTGC  
 CACCAGCAGAGTCTCCTTGGAGGTGACATGGATATGGGCAACCCAGGAACCTTTTCGCC  
 ACCAAACCTGGTCCCAGTACTATCAGTATTCTAGCAATAATCCCGAAGGAGGCCTCTT  
 CACAGTAGTGCCATGGAGGTACAGACAAAGAAAGTTCGAAAAGTCTCCAGGTTTGCCA  
 TCTTCAGTCTATGCTCCATCAGCAAGCACTGCCGACTACAATAGGGACTCGCCAGGCTAT  
 TCTTCTCCAAACAGCAACCAGCACTTTCCCTAGCTCTTTTTATGCAAGATGGCATCAC  
 AGCAGTGACCCTTGGAGTCTTCATGGGATGAATCCCCCTGCCTTTTCAGGGATGTTGGG  
 CAACTCTTTTCATATTCACAGTCCACACTCTTGACTCTGATCCACTGAACCTT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_003199 unedited  
 CGGCACGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTTTTGTCTTTTGTATAA  
 TTGGGAATGCTGAAACCTCTTGGCTCTGCGATTCAACTACTCAGACTGTCTTATATT  
 ACAAAAATGGGGTTAAGGAGAAGTGTATGTGGGTTAAGATAATACAGCTGTTAAGG  
 AAGTGGTCTCTTGTTTAATGAAGCAATGTGGCAACTGGACCCTTTACATCTGTCCCA  
 TGTGATTGATGCGTCTCCCATTCAGGGTGTGGGCCGGCCAAGGAGAGAGGGGGAGGCT  
 CCGAGGACACCTTCTCTTCTCCCTTCTTTTTCAGACACGAGCTTTTCGGATTGAGATTCC  
 TTTCTCGGACTTGTCTCCAGACTGAGGATGACGGCCACCGCTGGTGGAGGATCAGGA  
 GCTTGGTCTGGGGCTTGTCACTTTGAGGTGGAGCTGCACCATGCGGCCGAGCTCTTTGA  
 AAGCCTCGTTGATGTACGGACCCGAGACGCTCTCGGGCATTGTTGGCCATCTCCGCT  
 CTTCTCAGCCTCTGCCTTCTGCTCTGGTGTGAGTCTCATCGTATTATTGCTAGTAA  
 TTGATTTGATATCCTTCTTGTGTCATCTAATTTCTTGTCTCCGAAAGATTTGCTGCTT  
 GCAAGTTCTCATACCCTCGTCAATCGGATTTGATCTCAGAGCTGCCAGAGGAGACTCT  
 GCCCTGTAGTCTGGTGGCATGCCTCTGNTAGGGTCCCTGGGGTGGGTTGAGTCAAGG  
 GAAGTCGCAAACTGGACAGNAAGCTGTGGAACCCGNACCTGNNNTTTCAGAAAGAAATGG  
 CTGNTCTCAGGNCCACGCATCTCACGATGGNTCCACCATGANTGAATGTCTGTTGGCT  
 GAAAAAAGGCCGTTCCATACCCTGAGCCCAGACANCCATGGCTCTATGAGAAAGTCCATG  
 ATTCATGCTGTCCCTGAA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_003199

**Insert Size:**

2340 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_003199.1](#), [NP\\_003190.1](#)

**RefSeq Size:** 2500 bp

**RefSeq ORF:** 2004 bp

**Locus ID:** 6925

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

**Cytogenetics:** 18q21.2

**Domains:** HLH

**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]

**Transcript Variant:** This variant (2) differs in the 5' UTR and coding sequence and uses an alternate in-frame splice site at the 3' end of an exon compared to variant 3. The resulting isoform (b, also known as TCF4-B-) is shorter at the N-terminus and lacks an alternate internal segment compared to isoform c. **Sequence Note:** This gene is distinct from TCF7L2 (alias TCF-4).