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Product datasheet for RC224345

TCF4 (NM_001083962) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TCF4 (NM_001083962) Human Tagged ORF Clone
Tag:	Myc-DDK
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-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC224345 representing NM_001083962
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCATCACCAACAGCGAATGGCTGCCTTAGGGACGGACAAAGAGCTGAGTGATTTACTGGATTTCAGTG
CGATGTTTTCACCTCCTGTGAGCAGTGGGAAAAATGGACCAACTTCTTTGGCAAGTGGACATTTTACTGG
CTCAAATGTAGAAGACAGAAGTAGCTCAGGGTCCTGGGGGAATGGAGGACATCCAAGCCCGTCCAGGAAC
TATGGAGATGGGACTCCCTATGACCACATGACCAGCAGGGACCTTGGGTCACATGACAATCTCTCTCCAC
CTTTTGTCAATTCCAGAATACAAAGTAAAACAGAAAGGGGCTCATACTCATCTTATGGGAGAGAATCAAA
CTTACAGGGTTGCCACCAGCAGAGTCTCCTTGGAGGTGACATGGATATGGGCAACCCAGGAACCCTTTCG
CCCACCAAACCTGGTTCCCAGTACTATCAGTATTCTAGCAATAATCCCCGAAGGAGGCCTCTTCACAGTA
GTGCCATGGAGGTACAGACAAAGAAAGTTCGAAAAGTTCCTCCAGGTTTGCCATCTTCAGTCTATGCTCC
ATCAGCAAGCACTGCCGACTACAATAGGGACTCGCCAGGCTATCCTTCCTCCAAACCAGCAACCAGCACT
TTCCCTAGCTCCTTCTTCATGCAAGATGGCCATCACAGCAGTGACCCTTGGAGCTCCTCCAGTGGGATGA
ATCAGCCTGGCTATGCAGGAATGTTGGGCAACTCTTCTCATATTCCACAGTCCAGCAGCTACTGTAGCCT
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TCCACTTTCCATCGTAGTGGTACAAACCATTACAGCACCTCTTCCTGTACGCCTCCTGCCAACGGGACAG
ACAGTATAATGGCAAATAGAGGAAGCGGGGCAGCCGGCAGCTCCCAGACTGGAGATGCTCTGGGGAAAGC
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TCTCCTCCATCTCTCTCAGCAGGCACAGCTGTTTGGTCTAGAAATGGAGGACAGGCCTCATCGTCTCCTA
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CAAGAAGGATATCAAATCAATTACTAGGTCAAGATCTAGCAATAATGACGATGAGGACCTGACACCAGAG
CAGAAGGCAGAGCGTGAGAAGGAGCGGAGGATGGCCAACAATGCCCGAGAGCGTCTGCGGGTCCGTGACA
TCAACGAGGCTTTCAAAGAGCTCGGCCGCATGGTGCAGCTCCACCTCAAGAGTGACAAGCCCCAGACCAA
GCTCCTGATCCTCCACCAGGCGGTGGCCGTCATCCTCAGTCTGGAGCAGCAAGTCCGAGAAAGGAATCTG
AATCCGAAAGCTGCGTGTCTGAAAAGAAGGGAGGAAGAGAAGGTGTCCTCGGAGCCTCCCCCTCTCTCCT
TGGCCGGCCCACACCCTGGAATGGGAGACGCATCGAATCACATGGGACAGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224345 representing NM_001083962
Red=Cloning site Green=Tags(s)

MHHQQRMAALGTDKELSDLLDFSAMFSPPVSSGKNGPTSLASGHFTGSNVEDRSSSGSWGNGGHPSPSRN
YGDGTPYDHMTSRDLGSHDNLSPPFVNSRIQSKTERGSYSSYGRESNLQGCHQQSLLGGDMDMGNPGTLS
PTKPGSQYYQYSSNNPRRRPLHSSAMEVQTKKVRKVPPGLPSSVYAPSASTADYNRDSPGYPSSKPATST
FPSSFFMQDGHHSSDPWSSSSGMNQPGYAGMLGNSSHIPQSSSYCSLHPHERLSYPSHSSADINSSLPPM
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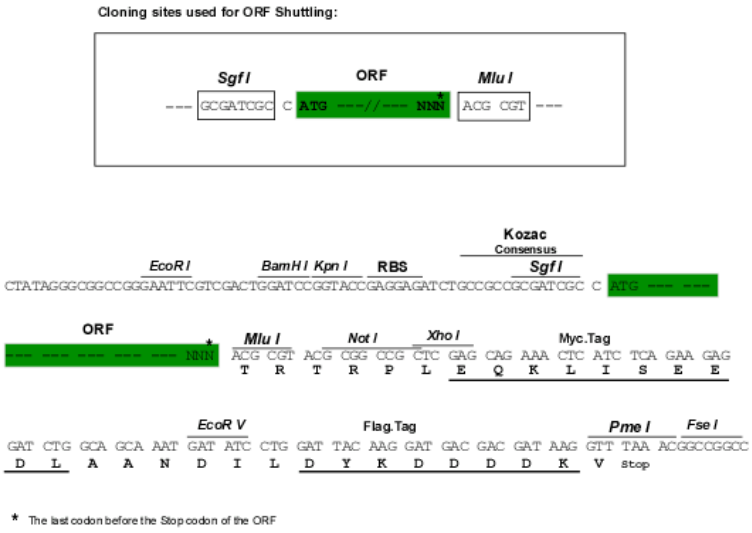
SPPSLSAGTAVWSRNGGQASSSPNYEGPLHSLQSRIEDRLERLDDAIHVLRNHAVGPSTAMPGGHGDMHG
IIGPSHNGAMGGLGSGYGTGLLSANRHSLMVGTHREDGVALRGSHSLLPNQVPVPQLPVQSATSPDLNPP
QDPYRGMPPGLQGQSVSSGSSEIKSDDEGDENLQDTKSSEDKKLDDDKKDIKSITRSRSSNNDDEDLTPE
QKAEREKERRMANNARERLRVRDINEAFKELGRMVQLHLKSDKPQTKLLILHQAVAVILSLEQQVRERNL
NPKAACLKRREEEKVSSEPPPLSLAGPHPGMGDASNHMGQM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2847_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



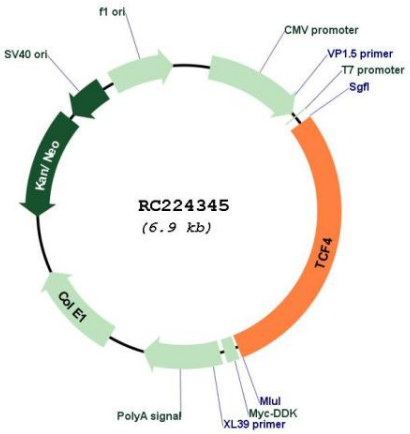
ACCN: NM_001083962

ORF Size: 2013 bp

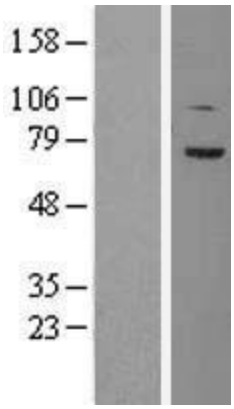
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001083962.1, NP_001077431.1
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
MW:	71.6 kDa

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]

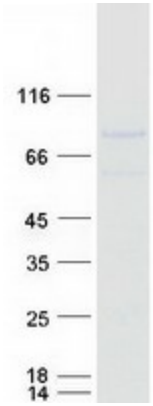
Product images:



Circular map for RC224345



Western blot validation of overexpression lysate (Cat# [LY421261]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224345 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TCF4 protein (Cat# [TP324345]). The protein was produced from HEK293T cells transfected with TCF4 cDNA clone (Cat# RC224345) using MegaTran 2.0 (Cat# [TT210002]).