

## Product datasheet for **RC201294**

### TFIIF (GTF2F1) (NM\_002096) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TFIIF (GTF2F1) (NM_002096) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TFIIF
Synonyms:	BTF4; RAP74; TF2F1; TFIIF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC201294 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGCCCTAGGCCCTAGCAGCCAGAATGTCTACTGAATACGTGTTTCGAGTTCCTAAGAATACAACCA  
 AAAAATAAATCATATGGCTTTTAAATGCAGCCGACAAAGTCAACTTTGCTACGTGGAATCAGGCTCGGCT  
 GGAGCGGGACTTGAGCAACAAGAAAATCTACCAAGAGGAGGAGATGCCCGAATCGGGCGCGGCAGTGAG  
 TTCAACCGCAAGCTTCGGGAGGAGGCTCGGAGGAAGAAGTACGGCATCGTCTCAAGGAGTTCGGCCCCG  
 AGGACCAGCCCTGGTGTCTCCGGTCAACGGCAAATCAGGCAGGAAGTTCAGGGCATCAAGAAGGGAGG  
 CGTAACAGAGAACACGTCTACTACATCTTACCCAGTCCCCGACGGGGCTTCGAGGCCCTCCCCGTG  
 CACAACGGTACAATTTACACCCGCTGGCCGGCATCGCACGCTACTGCCGAGGAGGCCGAGGAGGAGT  
 GGGAGAGGAGGAACAAGGTGCTGAACCACTTCAAGCATCATGCAGCAGCGCGGCTCAAGGATCAGGACCA  
 GGACGAGGATGAGGAGGAGAAGGAGAACTGGCCGAGGAAGGGGAGCGAGCTGCCATCCACGACCTG  
 GAGGACGACCTGGAGATGTCGTCGATGCCAGTATGCCAGTGGTGGAGGAGGGGGCAGAGTCCCCAAGG  
 CCAAGAAGAAGGGCGCCGCTGGCCAAGGGCGGCAGGAAAAAGAAGAAGAAGGGTTTCAGACGACGAGGC  
 CTTTCGAGGACAGCGATGATGGGGACTTCGAGGGCCAAGAGGTAGACTACATGTCAGACGGCTCCAGTAGC  
 TCCCAAGAAGAGCCTGAGAGCAAGGCCAAGGCGCCGACGAGGAGGAGGGGCCAAGGGTGTGATGAGC  
 AGAGCGACAGTAGTGAGGAGAGTGAGGAGGAGAAGCCGCTGAGGAGGACAAGGAGGAGGAGGAGGAGAA  
 GAAGGCACCCACCCCGCAGGAGAAGAAGCGCAGGAAAGACAGCAGCGAGGAGTCCGACAGCTCAGAGGAG  
 AGCGACATTTGACAGCGAGGCTCTCAGCCCTTTCATGGCGAAGAAGAAGACGCCACCCAAGAGAGAGC  
 GGAAGCCGTTCGGGAGGAGCTCAAGGGGCAACAGCCGCCAGGCAGCCAGCGCAGGAGGTTGGCAGCAC  
 CTCTCCACCCTGCGGGCGGCTGCCAGCAAACTCGAGCAAGGGAAGCGGGTGGAGGAGATGCCTGCAGCC  
 AAGCGGTTGCGGCTGGACACGGGACCCAGAGCCTGTCTGGGAAGTCGACACCCAGCCACCATCAGGCA  
 AGACAACACCCAACAGCGGCGACGTGCAGGTGACTGAGGATGCCGTGCGCCGCTACCTGACACGGAAGCC  
 CATGACCACTAAGGACCTGCTGAAAAAGTTCCAGACCAAGAAGACAGGGCTGAGCAGCGAGCAGACAGT  
 AACGTGTTGGCCAGATCCTCAAGCGACTCAACCCGAGCGCAAGATGATCAACGACAAAATGCCTTCT  
 CCCTCAAGGAG

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201294 protein sequence  
 Red=Cloning site Green=Tags(s)

MAALGPSSQNVTEYVVRVVPKNTTKKYNIMAFNAADKVNFAATWNQARLERDL SNKKIYQEEEMPESGAGSE  
 FNRKLREEARRKKYIVLKEFRPEDQPWLLRVNGKSGRKFVKIKKGGVTENTSYYIFTQCPDGAFAFPV  
 HNWFYNTPLARHRTLTAEEAEEEWERRNKVLNHF SIMQQRRLKDQDQDEDEEKEKRGRRKASELRIHDL  
 EDDLEMSDASDASGEEGGRVPAKAKKAPLAKGGRKKKKKGSDDAEFEDSDDGDFEGQEVDMSDGSSS  
 SQEPEPKAKAPQEEGPKGVDEQSDSSESEEEKPPPEEDKEEEEEKAPTPQEKRRKDSSESDSSEE  
 SDIDSEASSALFMAKKKTPPKRERKPSGGSSRGNSRPGTSAEGGSTSTLRAAASKLEQKRVSEMPAA  
 KRLRLDTGPQSLSGKSTPQPPSGKTPNSGDVQVTEDAVRRYL TRKPMTKDLLKKFQTKKTGLSSEQTV  
 NVLAQILKRLNPERKMINDKMHFSLKE

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6153\\_f12.zip](https://cdn.origene.com/chromatograms/mk6153_f12.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002096

**ORF Size:** 1551 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\\_002096.3](#)

**RefSeq Size:** 2551 bp

**RefSeq ORF:** 1554 bp

**Locus ID:** 2962

**UniProt ID:** [P35269](#)

**Cytogenetics:** 19p13.3

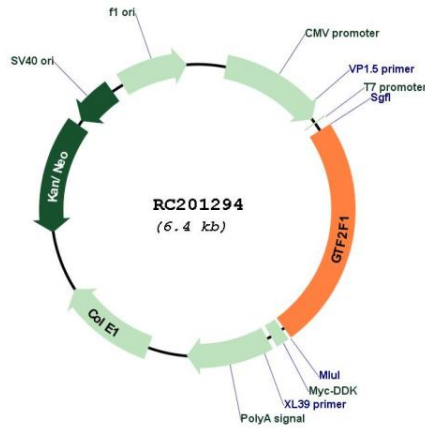
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Basal transcription factors

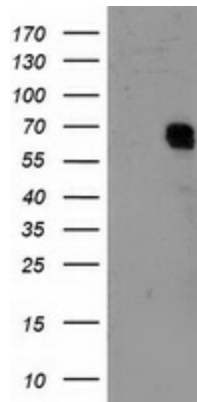
**MW:** 58.2 kDa

**Gene Summary:** TFIIF is a general transcription initiation factor that binds to RNA polymerase II and helps to recruit it to the initiation complex in collaboration with TFIIB. It promotes transcription elongation.[UniProtKB/Swiss-Prot Function]

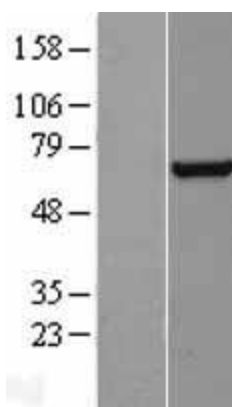
**Product images:**



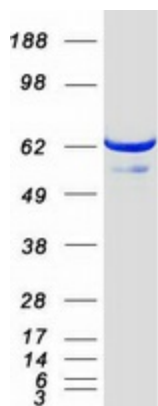
Circular map for RC201294



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GTF2F1 (Cat# RC201294, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GTF2F1(Cat# [TA503604]). Positive lysates [LY400767] (100ug) and [LC400767] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400767]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201294 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GTF2F1 protein (Cat# [TP301294]). The protein was produced from HEK293T cells transfected with GTF2F1 cDNA clone (Cat# RC201294) using MegaTran 2.0 (Cat# [TT210002]).