

Product datasheet for **RC202555**

GTF2H4 (NM_001517) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GTF2H4 (NM_001517) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GTF2H4
Synonyms:	P52; TFB2; TFIIH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC202555 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGAGACCCCTTCAAGGGGACTGAACCGAGTACACCTACAATGCAGGAATCTGCAGGAATCTTAG
 GGGCCTGAGCCCTGGGGTATTGACCGATTGTATGGGCACCCTGCCACATGTCTGGCTGTCTCAGGGA
 GCTCCCATCCTTGCTAAGAAGGAAATTCAGCAAGGCTCAGGAGAAAGTACAGGGCTGCTGAGCGGCTCC
 GTAGCTCTGTGGTAAAGAAGGAATTCAGCAAGGCTCAGGAGAAAGTACAGGGCTGCTGAGCGGCTCC
 GGATCTGGCACACAGCTGCTCCAGGCGGGCTCCAGGGCTCATCCTCAACCCATTTCCGCCAGAA
 CCTCCGATTGCCCTTCTGGGTGGGGGAAGGCCCTGGTCTGATGACACAAGTCACTGGGACCAGACAAG
 CATGCCCGGACGTTCCCTCCCTTGACAAGTACGCCGAGGAGCGATGGGAGGTGGTCTTGCACCTCATGG
 TGGGCTCCCCAGTGCAGCTGTAGCCAGGACTGGCTCAGCTCCTCAGCCAGGCTGGGCTCATGAAGAG
 TACTGAACCTGGAGAGCCGCCCTGCATTACTTCCGCTGGCTTCCAGTTCTGTTGCTGGACACCCGGCT
 CAGCTCTGGTACTTTATGTTGCAGTATTTGCAGACAGCCAGAGCCGGGGCATGGACCTGGTAGAGATTC
 TCTCCTTCTTCCAGCTCAGCTTCTACTCTGGGCAAGGATTACTCTGTGGAAGGTATGAGTATTC
 TCTGTTGAACTTCTGCAACATCTCGTGAGTTTGGGCTTGTTCAGAGGAAGAGGAAATCTCGGCGT
 TACTACCCACACGCCTGGCCATCAATCTCTCATCAGGTGTCTTGGAGCTGGGGCACTGTGCATCAGC
 CAGGTTTCATTGTCTGGAACCAATTACCGACTGTATGCCTACACGGAGTCGGAGCTGCAGATTGCCCT
 CATTGCCCTCTTCTGAGATGCTCTATCGGTTCCCAACATGGTGGTGGCGCAGGTGACCCGGGAGAGT
 GTGCAGCAGGCAATCGCCAGTGGCATCACAGCCAGCAGATAATCCATTTCTAAGGACAAGAGCCACC
 CAGTGATGCTCAAACAGACACCTGTGCTGCCCCACCACACCGACAGATCCGGCTCTGGGATGGA
 AAGGGACAGACTCCGGTTCAGTGGGTTGCTGTATAACAGTTCCTGTGCAAGTGGACTTTGAGCTG
 CTGCTGGCCACGCGGGAGCTGGGCGTGTCTGTTGAGAAGTCCGCCAAGCGGCTCATGGTGGTGA
 CCCCAGCCGGGCACAGCGACGTCAAGCGCTTTTGAAGCGGCAGAAACATAGCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202555 protein sequence
 Red=Cloning site Green=Tags(s)

MESTPSRGLNRVHLQCRNLQEFLGGLSPGVLDRLYGHPTCLAVFRELP SLAKNWMRMLFLEQPLPQAA
 VALWVKKEFSKAQEESTGLLSGLRIWHTQLLPGLQGLILNPIFRQNLRIALLGGKAWSDDTSQLGPK
 HARDVPSLDKYAEERWEVVLHFMVGSAAVSQDLAQLLSQAGLMKSTEPGEPPCITSAGFQFLLLDTPA
 QLWYFMLQYLQTAQSRGMDLVEILSFLFQLSFSTLTKDYSEVGMDSLLNFLQHLREFGLVFQRKRKSR
 YYPTRLAINLSSGVSGAGGTVHQPGFIVVETNYRLYAYTESELQIALIALFSEMLYRFPNMVVAQVTRES
 VQQAIASGITAQQIIHFLRTRAHPVMLKQTPVLPPTITDQIRLWELERDRLRFTEGVLYNQFLSQVDFEL
 LLAHARELVLVFENSAKRLMVVTPAGHSDVKRFWKRQKHSS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6389_d11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001517

ORF Size: 1386 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_001517.5](#)

RefSeq Size: 1736 bp

RefSeq ORF: 1389 bp

Locus ID: 2968

UniProt ID: [Q92759](#)

Cytogenetics: 6p21.33

Domains: Tfb2

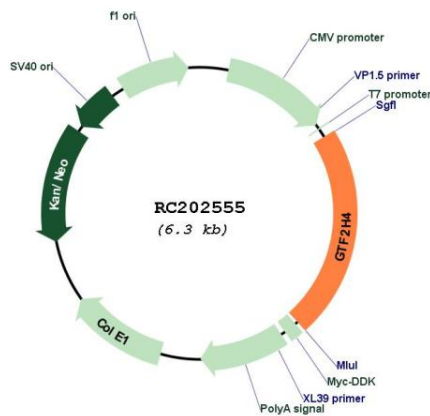
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Basal transcription factors, Nucleotide excision repair

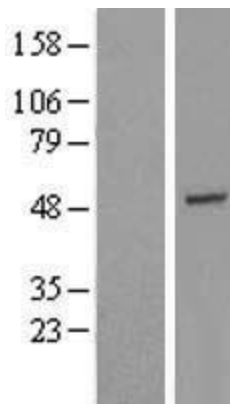
MW: 52.2 kDa

Gene Summary: Component of the general transcription and DNA repair factor IIH (TFIIH) core complex, which is involved in general and transcription-coupled nucleotide excision repair (NER) of damaged DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. In NER, TFIIH acts by opening DNA around the lesion to allow the excision of the damaged oligonucleotide and its replacement by a new DNA fragment. In transcription, TFIIH has an essential role in transcription initiation. When the pre-initiation complex (PIC) has been established, TFIIH is required for promoter opening and promoter escape. Phosphorylation of the C-terminal tail (CTD) of the largest subunit of RNA polymerase II by the kinase module CAK controls the initiation of transcription.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC202555



Western blot validation of overexpression lysate (Cat# [LY419887]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202555 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).