OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC201341

GTF2H1 (NM_005316) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GTF2H1 (NM_005316) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GTF2H1
Synonyms:	BTF2; P62; TFB1; TFIIH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

ORF Nucleotide Sequence:

>RC201341 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAACCTCATCTGAAGAAGTTTTGCTGATTGTAAAGAAAGTGCGTCAAAAGAAGCAGGATGGAGCTC
TGTACCTCATGGCAGAAAGAATTGCTTGGGCACCTGAAGGCAAAGATAGATTTACAATCAGCCATATGTA
TGCAGATATTAAATGCCAGAAAATTAGTCCAGAAGGAAAAGCTAAAATTCAGCTTCAGCTGGTCCTACAT
GCAGGGGACACAACTAACTTCCATTTTTCCAATGAAAGCACAGCAGTGAAAGAGCGAGATGCAGTAAAAG
ACCTTCTTCAGCAGCTGCTGCCCAAATTCAAGAGGAAAGCAAATAAAGAACTGGAAGAGAAGAACAGAAT
GCTGCAAGAAGATCCTGTTTTGTTTCAGCTTTATAAAGACCTTGTTGTGAGTCAAGTGATCAGTGCTGAG
GAATTCTGGGCCAATCGTTTAAATGTGAATGCAACAGATAGTTCTTCCACATCCAATCATAAGCAGGATG
TTGGCATTTCTGCTGCATTTCTGGCTGATGTCCGGCCCCAAACTGATGGCTGTAACGGTCTAAGATATAA
TTTAACTTCTGATATCATTGAGTCCATATTTAGGACCTATCCAGCAGTAAAAATGAAATATGCAGAAAAT
GTTCCCCACAACATGACAGAGAAGGAATTCTGGACACGTTTTTTCCAGTCCCATTATTTTCACAGGGATC
GGCTGAATACAGGGTCAAAGGATCTCTTTGCAGAATGTGCCAAAATAGATGAAAAAGGCCTAAAAACAAT
GGTTTCATTAGGAGTGAAAAACCCACTACTAGATTTAACAGCTTTGGAAGATAAACCATTAGATGAGGGC
TATGGCATTTCCTCTGTGCCATCTGCTTCCAATTCTAAATCCATAAAAGAGAATAGTAATGCTGCCATCA
TCAAGAGATTTAACCATCACAGTGCCATGGTCCTGGCAGCTGGACTCAGAAAACAAGAAGCACAAAATGA
ACAAACTAGTGAGCCCAGCAACATGGATGGAAATTCCGGAGATGCAGACTGCTTTCAGCCAGCAGTCAAA
AGGGCGAAATTACAAGAGTCCATTGAATATGAAGACTTGGGGAAAAATAATTCTGTAAAAACGATTGCAC
TAAACCTCAAGAAGTCAGATAGGTATTATCATGGTCCAACTCCAATCCAGTCACTACAGTATGCAACAAG
TCAGGACATTATTAATTCTTTTCAAAGTATTAGACAAGAAATGGAAGCTTATACACCCAAGTTAACTCAG
GTTCTCTCAAGTAGTGCTGCCAGTAGTACCATCACAGCACTGTCACCTGGAGGGGCACTTATGCAGGGAG
GAACACAGCAAGCCATAAACCAGATGGTGCCAAATGATATTCAATCTGAATTGAAACACTTATATGTAGC
TGTTGGAGAACTTCTACGACATTTCTGGTCCTGCTTTCCTGTTAATACGCCATTCCTAGAAGAAAAGGTA
GTGAAAATGAAAAGTAATTTGGAACGATTCCAAGTTACGAAGCTCTGTCCATTCCAAGAAAAGATTCGGA
GACAGTATTTAAGCACAAATTTGGTAAGTCACATAGAAGAGATGCTCCAGACAGCCTACAACAAGCTCCA
CACATGGCAGTCACGGCGTCTGATGAAGAAAACG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201341 protein sequence
Red=Cloning site Green=Tags(s)

MATSSEEVLLIVKKVRQKKQDGALYLMAERIAWAPEGKDRFTISHMYADIKCQKISPEGKAKIQLQLVLH
AGDTTNFHFSNESTAVKERDAVKDLLQQLLPKFKRKANKELEEKNRMLQEDPVLFQLYKDLVVSQVISAE
EFWANRLNVNATDSSSTSNHKQDVGISAAFLADVRPQTDGCNGLRYNLTSDIIESIFRTYPAVKMKYAEN
VPHNMTEKEFWTRFFQSHYFHRDRLNTGSKDLFAECAKIDEKGLKTMVSLGVKNPLLDLTALEDKPLDEG
YGISSVPSASNSKSIKENSNAAIIKRFNHHSAMVLAAGLRKQEAQNEQTSEPSNMDGNSGDADCFQPAVK
RAKLQESIEYEDLGKNNSVKTIALNLKKSDRYYHGPTPIQSLQYATSQDIINSFQSIRQEMEAYTPKLTQ
VLSSSAASSTITALSPGGALMQGGTQQAINQMVPNDIQSELKHLYVAVGELLRHFWSCFPVNTPFLEEKV
VKMKSNLERFQVTKLCPFQEKIRRQYLSTNLVSHIEEMLQTAYNKLHTWQSRRLMKKT

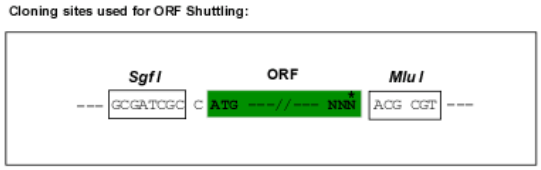
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

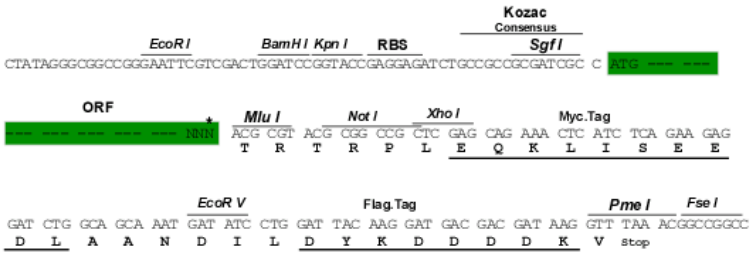
Chromatograms: https://cdn.origene.com/chromatograms/mk6675_f12.zip

Restriction Sites: SgfI-MluI

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

Cloning Scheme:





* The last codon before the Stop codon of the ORF

ACCN: NM_005316

ORF Size: 1644 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_005316.4

RefSeq Size: 3308 bp

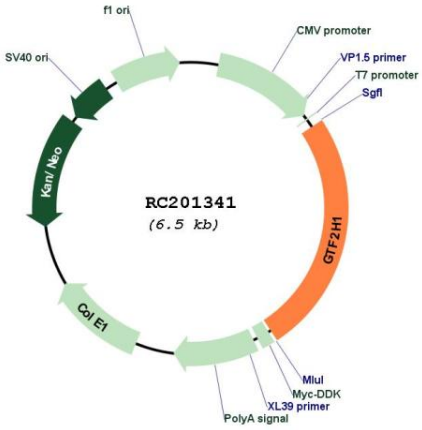
RefSeq ORF: 1647 bp

Locus ID: 2965

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

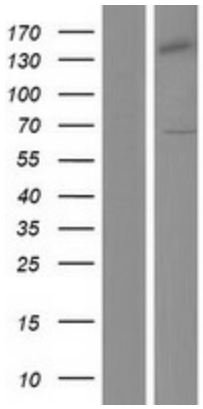
UniProt ID:	P32780
Cytogenetics:	11p15.1
Domains:	BSD
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Basal transcription factors, Nucleotide excision repair
MW:	62 kDa
Gene Summary:	Component of the general transcription and DNA repair factor IIH (TFIIH) core complex, which 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:

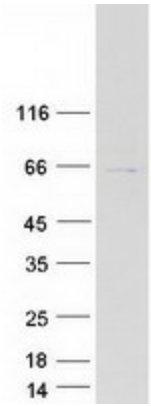


Circular map for RC201341

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US



Western blot validation of overexpression lysate (Cat# [LY428028]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227747] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GTF2H1 protein (Cat# [TP301341]). The protein was produced from HEK293T cells transfected with GTF2H1 cDNA clone (Cat# RC201341) using MegaTran 2.0 (Cat# [TT210002]).

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US