

Product datasheet for MR206255

Gtf2h2 (BC016231) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gtf2h2 (BC016231) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gtf2h2
Synonyms:	Btf2p44, 44kDa
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206255 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGAAGAACCTGAGAGAACCAAGCGGTGGGAAGGAGGCTATGAGAGAACCTGGGAAATTCCTAAAG
AAGATGAAACTGGATCACTTAAAGCTACAATAGAAGATATTCTCTTCAAGGCAAAGAGGAAAAGAGTGTT
TGAGCACCATGGACAAGTCCGACTTGAATGATGCGCCACCTGTATGTGGTGGTGGATCGAGAACA
ATGGAAGATCAGGATTTAAAGCCCAATAGACTGACTTGCACCTTTAAAGTTGCTGGAATACTTTGTAGAAG
AATATTTTGTATCAAACCTATCAGTCAGATTGGAATAATTGTAACCTAAGAGTAAAAGAGCTGAAAACT
GACTGAACTCTCAGGAAACCCAAGGAAACATATAACATCTTTGAAGAAAGCTGTAGATATGACCTGCCAT
GGAGAACCATCGCTCTATAATTCCTTAAGCATGGCTATGCAGACCCTAAAACACATGCCTGGACATACAA
GTAGAGAAGTGCTCATCATCTTCAGCAGCCTCACACCTGTGATCCATCTAATATTTACGATCTCATCAA
GACCTGAAGACAGCTAAAATTAGAGTGCTGTTATTGGATTATCTGCGGAGGTTTCGAGTTTGTACTGTA
CTTGCTCGTGAAGTGGTGGCACATACCATGTTATCTTAGATGAAACCCATTACAAGGAGTTGTTGGCAC
ATCATGTGAGCCCCCTCCTGCCAGTCAAGCTCCGAGTGCTCACTCATTTCGATGGGATTCCTCAGCA
TACCATTGCTTCTTTGTCTGATCAGGATGCAAAACCATCCTTCAGCATGGCGCATTGGATAACAACAGC
ACTGAGCCAGGGCTTACACTGGGAGGCTACTTCTGCCACAGTGCCGAGCAAAGTACTGCGAGCTTCCTG
TTGAATGTAAAATATGTGGTCTTACTTTGGTGTCTGCACCTCATTGGCAAGATCTTACCATCATTTATT
TCCTTTGGATGCTTTTCAAGAAATTTCCCTAGAGAATATAAAGGAGAAAGGTTTTGTTATGGATGTCAG
GGGAAATTGAAAGACCAACATGTCTATGTTGCACAGTGTGCCAAAATGTTTTTGTGTGGACTGTGATG
TCTTTGTCATGACTCTCTCCATTGTTGCTGCTGATTTCATAAGATCCCAACTCCTTCAGGTCCATC
TCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >MR206255 protein sequence
Red=Cloning site Green=Tags(s)

MDEEPERTKRWEGGYERTWEILKEDETGSLKATIEDILFKAKRKRVEFHHGQVRLGMMRHLVYVVDGSRT
 MEDQDLKPNRLTCTLKLLLEYFVEEYFDQNPISQIGIIVTKSKRAEKLTELSGNPRKHITSLKKAVIDMTCH
 GEPSLYNSLSMAMQTLKHMPGHTSREVLIIIFSSLTTCDPSNIYDLIKTLTAKIRVSVIGLSAEVRVCTV
 LARETGTTYHVILDETHYKELLAHHVSPPPASSSECSLIRMGFPQHTIASLSDQDAKPSFSMAHLDNNS
 TEPGLTLGGYFCPCRAKYCELPECKICGLTLVSAPHLARSYHHLFPLDAFQEISLEEYKGERFCYGCQ
 GELKDQHVYVCTVCQNVFCVDCDVFVHDSLHCCPGCIHKIPTSPGPSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: BC016231

ORF Size: 1194 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: [BC016231](#), [AAH16231](#)

RefSeq Size: 1643 bp

RefSeq ORF: 1196 bp

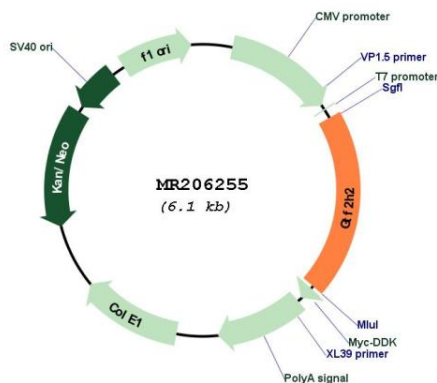
Locus ID: 23894

Cytogenetics: 13 53.21 cM

MW: 44.9 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. The N-terminus of GTF2H2 interacts with and regulates XPD whereas an intact C-terminus is required for a successful escape of RNAP II from the promoter.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206255