

## Product datasheet for **MR206208**

### Gtf2h2 (NM\_022011) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gtf2h2 (NM_022011) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gtf2h2
Synonyms:	44kDa; BTF2 p44; BTF2-p44; Btf2p44; p44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206208 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATGAAGAACCTGAGAGAACCAAGCGGTGGGAAGGAGGCTATGAGAGAACCTGGGAAATTCCTAAAG  
AAGATGAAACTGGATCACTTAAAGCTACAATAGAAGATATTCTCTTCAAGGCAAAGAGGAAAAGAGTGTT  
TGAGCACCATGGACAAGTCCGACTTGAATGATGCGCCACCTGTATGTGGTGGTGGATCGAGAACA  
ATGGAAGATCAGGATTTAAAGCCCAATAGACTGACTTGCACCTTTAAAGTTGCTGGAATACTTTGTAGAAG  
AATATTTTATGATCAAAACCTATCAGTCAGATTGGAATAATTGTAACCTAAGAGTAAAAGAGCTGAAAACT  
GACTGAACTCTCAGGAAACCCAAGGAAACATATAACATCTTTGAAGAAAGCTGTAGATATGACCTGCCAT  
GGAGAACCATCGCTCTATAATTCCTTAAGCATGGCTATGCAGACCCTAAAACACATGCCTGGACATACAA  
GTAGAGAAGTGCTCATCATCTTCAGTAGCCTCACACCTGTGATCCATCTAATATTTACGATCTCATCAA  
GACCTGAAGACAGCTAAAATTAGAGTGCTGTTATTGGATTATCTGCGGAGGTTTCGAGTTTGTACTGTA  
CTTGCTCGTGAAGTGGTGGCACATACCATGTTATCTTAGATGAAACCCATTACAAGGAGTTGTTGGCAC  
ATCATGTGAGCCCCCTTCTGCCAGCTCAAGCTCCGAGTGCTCACTCATTGCGATGGGATTCCTCAGCA  
TACCATTGCTTCTTTGTCTGATCAGGATGCAAAACCATCCTTCAGCATGGCGCATTGGATAACAACAGC  
ACTGAGCCAGGGCTTACACTGGGAGGCTACTTCTGCCACAGTGCCGAGCAAAGTACTGCGAGCTTCCTG  
TTGAATGTAAAATATGTGGTCTTACTTTGGTGTCTGCACCTCATTGGCAAGATCTTACCATCATTTATT  
TCCTTTGGATGCTTTTCAAGAAATTTCCCTAGAGAATATAAAGGAGAAAGGTTTTGTTATGGATGTCAG  
GGGAAATTGAAAGACCAACATGTCTATGTTGCACAGTGTGCCAAAATGTTTTTTGTGTGGACTGTGATG  
TCTTTGTCATGACTCTCCATTGTTGCTGCTGATTTCATAAGATCCCAACTCCTTCAGGTATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206208 protein sequence  
Red=Cloning site Green=Tags(s)

MDEEPERTKRWEGGYERTWEILKEDETGSLKATIEDILFKAKRKRVEFHGQVRLGMMRHLVYVVDGSR  
 MEDQDLKPNRLTCTLKLEEFVEEYFDQNPISQIGIIVTKSKRAEKLTELSGNPRKHITSLKAVDMTCH  
 GEPSLYNSLSMAMQTLKHMPGHTSREVLIIIFSSLTTCDPNSIYDLIKTLTAKIRVSVIGLSAEVRVCTV  
 LARETGTTYHVILDETHYKELLAHHVSPLPASSSECSLIRMGFPQHTIASLSDQDAKPSFSMAHLDNNS  
 TEPGLTLGGYFCQCRAKYCELPECKICGLTLVSAPHLARSYHHLFPLDAFQEISLEEYKGERFCYGCQ  
 GELKDQHYVYVCTVCQNVFCVDCDVFVHDSLHCCPGCIHKIPTPSGI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_022011

**ORF Size:** 1191 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\\_022011.3](#)

**RefSeq Size:** 1707 bp

**RefSeq ORF:** 1191 bp

**Locus ID:** 23894

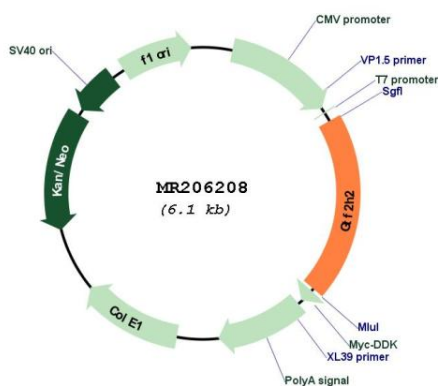
**UniProt ID:** [Q9JIB4](#)

**Cytogenetics:** 13 53.21 cM

**MW:** 44.7 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 MR206208