

Product datasheet for RC210727

TATA binding protein (TBP) (NM_003194) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TATA binding protein (TBP) (NM_003194) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TATA binding protein
Synonyms:	GTF2D; GTF2D1; HDL4; SCA17; TFIID
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210727 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCAGAACAACAGCCTGCCACCTTACGCTCAGGGCTTGGCCTCCCCTCAGGGTGCCATGACTCCCG
GAATCCCTATCTTTAGTCCAATGATGCCTTATGGCACTGGACTGACCCACAGCCTATTCAGAACACCAA
TAGTCTGTCTATTTTGAAGAGCAACAAAGGCAGCAGCAGCAACAACAACAGCAGCAGCAGCAGCAGCAG
CAGCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAAC
AGGCAGTGGCAGCTGCAGCCGTTTCAGCAGTCAACGTCCCAGCAGGCAACACAGGGAACCTCAGGCCAGGC
ACCACAGCTCTTCCACTCACAGACTCTCACAACCTGCACCCCTTGCCGGGCACCACTCCACTGTATCCCTCC
CCCATGACTCCCATGACCCCATCACTCCTGCCACGCCAGCTTCGGAGAGTTCTGGGATTGTACCGCAGC
TGCAAAATATTGTATCCACAGTGAATCTTGTTGTAACTTGACCTAAAGACATTGCACTTCGTGCCCCG
AAACGCCGAATAAATCCCAAGCGGTTTGCTGCGGTAATCATGAGGATAAGAGAGCCACGAACCACGGCA
CTGATTTTCAGTTCTGGGAAATGGTGTGCACAGGAGCCAAGAGTGAAGAACAGTCCAGACTGGCAGCAA
GAAAATAGCTAGAGTTGTACAGAAGTTGGGTTTTCCAGCTAAGTTCTTGACTTCAAGATTCAGAATAT
GGTGGGGAGCTGTGATGTGAAGTTTCTATAAGGTTAGAAGGCCCTGTGCTCACCCACCAACAATTTAGT
AGTTATGAGCCAGAGTTATTTCTGGTTAATCTACAGAATGATCAAACCCAGAATTGTTCTCCTTATTT
TTGTTTTGGAAGTTGTATTAACAGGTGCTAAAGTCAGAGCAGAAAATTTATGAAGCATTGAAAACAT
CTACCCTATTCTAAAGGATTCAGGAAGACGACG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210727 protein sequence
Red=Cloning site Green=Tags(s)

```
MDQNNLPPYAQGLASPGAMTPGIPIFSPMPYGTGLTPQPIQNTNSLSILEEQQRQQQQQQQQQQQQQ
QQQQQQQQQQQQQQQQQQQQQAVAAAAVQSQSTSQQATQGTSGQAPQLFHSQTLTTAPLPGTTPLYPS
PMTMPITPATPASESSGIVPQLQNIIVSTVNLGCKLDLKTIALRARNAYNPKRFAAVIMRIREPRTTA
LIFSSGKMVCTGAKSEEQSRLAARKYARVVQKLGFPKFLDFKIQNMVGS CDVKFP IIRLEGLVLTHQQFS
SYPELFPGLIYRMIKPRIVLLIFVSGKVLTGAKVRAE IYEAFENIYPILKGFRTT
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6005_d12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003194

ORF Size: 1014 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_003194.5](#)

RefSeq Size: 1921 bp

RefSeq ORF: 1020 bp

Locus ID: 6908

UniProt ID: [P20226](#)

Cytogenetics: 6q27

Domains: TBP

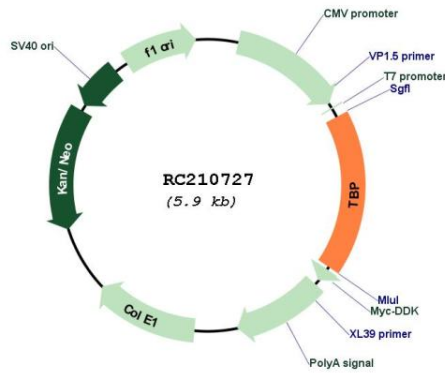
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Basal transcription factors, Huntington's disease

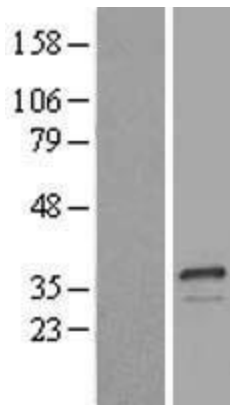
MW: 37.6 kDa

Gene Summary: Initiation of transcription by RNA polymerase II requires the activities of more than 70 polypeptides. The protein that coordinates these activities is transcription factor IID (TFIID), which binds to the core promoter to position the polymerase properly, serves as the scaffold for assembly of the remainder of the transcription complex, and acts as a channel for regulatory signals. TFIID is composed of the TATA-binding protein (TBP) and a group of evolutionarily conserved proteins known as TBP-associated factors or TAFs. TAFs may participate in basal transcription, serve as coactivators, function in promoter recognition or modify general transcription factors (GTFs) to facilitate complex assembly and transcription initiation. This gene encodes TBP, the TATA-binding protein. A distinctive feature of TBP is a long string of glutamines in the N-terminus. This region of the protein modulates the DNA binding activity of the C terminus, and modulation of DNA binding affects the rate of transcription complex formation and initiation of transcription. The number of CAG repeats encoding the polyglutamine tract is usually 25-42, and expansion of the number of repeats to 45-66 increases the length of the polyglutamine string and is associated with spinocerebellar ataxia 17, a neurodegenerative disorder classified as a polyglutamine disease. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC210727



Western blot validation of overexpression lysate (Cat# [LY401105]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210727 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).