

TBP Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6680c**Specification**

TBP Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P20226](#)**TBP Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 6908**Other Names**

TATA-box-binding protein, TATA sequence-binding protein, TATA-binding factor, TATA-box factor, Transcription initiation factor TFIID TBP subunit, TBP, GTF2D1, TF2D, TFIID

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6680c](/products/AP6680c) was selected from the Center region of human TBP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TBP Antibody (Center) Blocking Peptide - Protein Information**Name** TBP**Synonyms** GTF2D1, TF2D, TFIID {ECO:0000303|PubMed:**Function**

The TFIID basal transcription factor complex plays a major role in the initiation of RNA polymerase II (Pol II)-dependent transcription (PubMed: [33795473](http://www.uniprot.org/citations/33795473)). TFIID recognizes and binds promoters with or without a TATA box via its subunit TBP, a TATA-box-binding protein, and promotes assembly of the pre-initiation complex (PIC) (PubMed: [33795473](http://www.uniprot.org/citations/33795473), PubMed: [27193682](http://www.uniprot.org/citations/27193682), PubMed: [2194289](http://www.uniprot.org/citations/2194289), PubMed: [2363050](http://www.uniprot.org/citations/2363050), PubMed: [2374612](http://www.uniprot.org/citations/2374612)

target="_blank">2374612). The TFIID complex consists of TBP and TBP-associated factors (TAFs), including TAF1, TAF2, TAF3, TAF4, TAF5, TAF6, TAF7, TAF8, TAF9, TAF10, TAF11, TAF12 and TAF13 (PubMed:33795473, PubMed:27007846). The TFIID complex structure can be divided into 3 modules TFIID-A, TFIID-B, and TFIID-C (PubMed:33795473). TBP forms the TFIID-A module together with TAF3 and TAF5 (PubMed:33795473). TBP is a general transcription factor that functions at the core of the TFIID complex (PubMed:33795473, PubMed:27193682, PubMed:2194289, PubMed:2363050, PubMed:2374612, PubMed:9836642). During assembly of the core PIC on the promoter, as part of TFIID, TBP binds to and also bends promoter DNA, irrespective of whether the promoter contains a TATA box (PubMed:33795473). Component of a BRF2-containing transcription factor complex that regulates transcription mediated by RNA polymerase III (PubMed:26638071). Component of the transcription factor SL1/TIF-IB complex, which is involved in the assembly of the PIC during RNA polymerase I-dependent transcription (PubMed:15970593). The rate of PIC formation probably is primarily dependent on the rate of association of SL1 with the rDNA promoter (PubMed:15970593). SL1 is involved in stabilization of nucleolar transcription factor 1/UBTF on rDNA (PubMed:15970593).

Cellular Location

Nucleus.

Tissue Location

Widely expressed, with levels highest in the testis and ovary.

TBP Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

TBP Antibody (Center) Blocking Peptide - Images

TBP Antibody (Center) Blocking Peptide - Background

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. A distinctive feature of TBP is a long string of glutamines in the N-terminal. 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. Mutations that expand the number of CAG repeats encoding this

polyglutamine tract, and thus increase the length of the polyglutamine string, are associated with spinocerebellar ataxia 17, a neurodegenerative disorder classified as a polyglutamine disease.

TBP Antibody (Center) Blocking Peptide - References

Ohi,K., Genes Brain Behav. 8 (4), 473-480 (2009) Reid,S.J., Brain Res. 1268, 190-199 (2009)