

#### TBP Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6680b

#### Specification

## TBP Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region IF, WB, IHC-P,E <u>P20226</u> <u>P27633, P29037, 04R4F5, 013270, 02HJ52</u> Human Bovine, Chicken, Monkey, Mouse, Xenopus Rabbit Polyclonal Rabbit IgG 37698 301-330

## **TBP Antibody (C-term) - 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

This TBP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 301-330 amino acids from the C-terminal region of human TBP.

Dilution IF~~1:10~50 WB~~1:1000 IHC-P~~1:50~100 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TBP Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## TBP Antibody (C-term) - 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: <u>33795473</u>). 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:2194289, PubMed:2363050, PubMed:2374612, PubMed:27193682, PubMed:33795473). 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:27007846, PubMed:33795473). The TFIID complex structure can be divided into 3 modules TFIID-A, TFIID-B, and TFIID-C (PubMed:<u>33795473</u>). TBP forms the TFIID-A module together with TAF3 and TAF5 (PubMed:<u>33795473</u>). TBP is a general transcription factor that functions at the core of the TFIID complex (PubMed:2194289. PubMed:2363050, PubMed:2374612, PubMed:27193682, PubMed:33795473, 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:<u>33795473</u>). Component of a BRF2-containing transcription factor complex that regulates transcription mediated by RNA polymerase III (PubMed: <u>26638071</u>). 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.

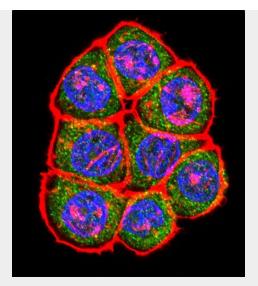
## **TBP Antibody (C-term) - Protocols**

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

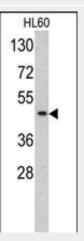
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

TBP Antibody (C-term) - Images

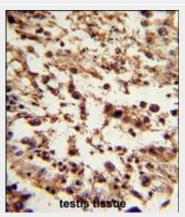




Confocal immunofluorescent analysis of TBP Antibody (C-term)(Cat#AP6680b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).



Western blot analysis of TBP antibody (C-term) (Cat. #AP6680b) in HL60 cell line lysates (35ug/lane). TBP (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human testis tissue reacted with TBP Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

# TBP Antibody (C-term) - 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 (C-term) - References**

Ohi,K., Genes Brain Behav. 8 (4), 473-480 (2009) Reid,S.J., Brain Res. 1268, 190-199 (2009) **TBP Antibody (C-term) - Citations** 

• <u>Disruption of in Head and Neck Cancer Promotes Favorable Chemotherapeutic Responses</u> <u>Linked to Hypomethylation.</u>