

Product Name: TFIID Rabbit Polyclonal Antibody**Catalog #: APRab18830**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:20000-1:40000
Molecular Weight	38kDa

Antigen Information

Gene Name	TBP
Alternative Names	TBP; GTF2D1; TF2D; TFIID; TATA-box-binding protein; TATA sequence-binding protein; TATA-binding factor; TATA-box factor; Transcription initiation factor TFIID TBP subunit
Gene ID	6908.0
SwissProt ID	P20226
Immunogen	The antiserum was produced against synthesized peptide derived from human TBP. AA range:151-200

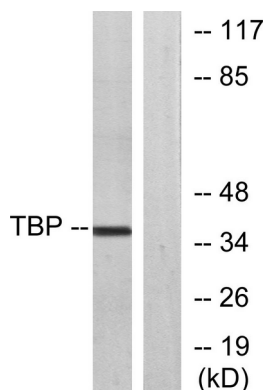
Background

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. 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. Defects in TBP are the cause of spinocerebellar ataxia type 17 (SCA17) [MIM:607136]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA17 is an autosomal dominant cerebellar ataxia (ADCA) characterized by widespread cerebral and cerebellar atrophy, dementia and extrapyramidal signs. The molecular defect in SCA17 is the expansion of a CAG repeat in the coding region of TBP. Longer expansions result in earlier onset and more severe clinical manifestations of the disease. **function:** General transcription factor that functions at the core of the DNA-binding multiprotein factor TFIID. Binding of TFIID to the TATA box is the initial transcriptional step of the pre-initiation complex (PIC), playing a role in the activation of eukaryotic genes transcribed by RNA polymerase II. **polymorphism:** The poly-Gln region of TBP is highly polymorphic (25 to 42 repeats) in normal individuals and is expanded to about 47-63 repeats in spinocerebellar ataxia 17 (SCA17) patients. **similarity:** Belongs to the TBP family. **subunit:** Belongs to the TFIID complex together with the TBP-associated factors (TAFs). Component of the transcription factor SL1/TIFIB complex, composed of TBP and at least TAF1A, TAF1B TAF1C, and TAF3. Binds DNA as monomer. Interacts with TAFs, TFIIB, NCOA6, DRAP1, DR1 and ELF3. Interacts with SPIB, SNAPC1, SNAPC2 and SNAPC4. Interacts with HIV-1 Tat. Interacts with UTF1 which acts as a coactivator of ATF2 transcriptional activity. Interacts with GPBP1 (By similarity). Interacts with BRF2. **tissue specificity:** Widely expressed, with levels highest in the testis and ovary.

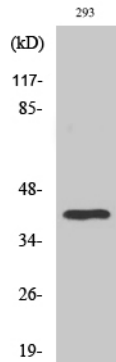
Research Area

Basal transcription factors;Huntington's disease;

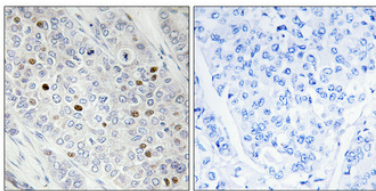
Image Data



Western blot analysis of lysates from 293 cells, using TBP Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using TFIID Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100 (4°, overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.