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TBP Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AW5294

Product Information

Application	IHC-P, WB
Primary Accession	P20226
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	37698
Isotype	IgG1
Antigen Source	HUMAN

Additional Information

Gene ID	6908
Antigen Region	1-308
Other Names	TBP;GTF2D1; TF2D; TFIID; TATA-box-binding protein; TATA-box-binding protein; TATA sequence-binding protein; TATA-box-binding protein; TATA-binding factor; TATA-box-binding protein; TATA-box factor; TATA-box-binding protein; Transcription initiation factor TFIID TBP subunit
Dilution	IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	Purified His-tagged TBP protein was used to produced this monoclonal antibody.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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 is for research use only and not for use in diagnostic or therapeutic procedures.

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). 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: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: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: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.

Background

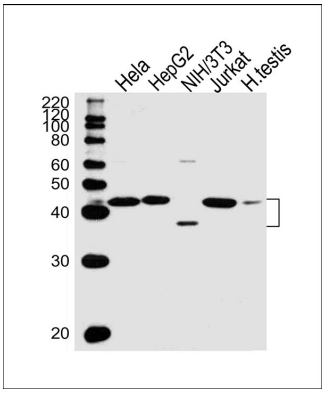
General transcription factor that functions at the core of the DNA-binding multiprotein factor TFIID. Binding of TFIID to the TATA box is the initial transcriptional step of the pre-initiation complex (PIC), playing a role in the activation of eukaryotic genes transcribed by RNA polymerase II. Component of the transcription factor SL1/TIF-IB complex, which is involved in the assembly of the PIC (preinitiation complex) during RNA polymerase I-dependent transcription. The rate of PIC formation probably is primarily dependent on the rate of association of SL1 with the rDNA promoter. SL1 is involved in stabilization of nucleolar transcription factor 1/UBTF on rDNA.

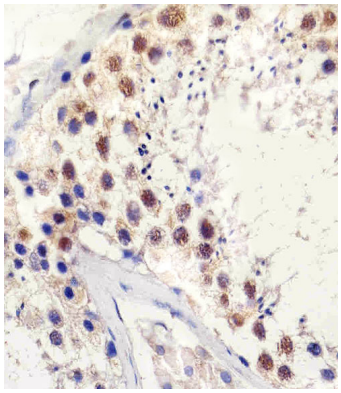
References

Hoffmann A., et al. Nature 346:387-390(1990).
Peterson M.G., et al. Science 248:1625-1630(1990).
Kao C.C., et al. Science 248:1646-1650(1990).
Ebert L., et al. Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Mungall A.J., et al. Nature 425:805-811(2003).

Images

Western blot analysis of lysates from Hela,HepG2,mouse NIH/3T3,Jurkat cell line and human testis tissue (from left to right), using TBP Antibody (Cat. #AW5294). AW5294 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.





Immunohistochemical analysis of paraffin-embedded H. testis section using TBP Antibody(Cat#AW5294). AW5294 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.