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TBP Antibody

Rabbit mAb
Catalog # AP90423

Product Information

Application	WB
Primary Accession	P20226
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	TBP; GTF2D; GTF2D1; HDL4; SCA17; TFIID; TATA binding protein;TATA sequence-binding protein; TATA-binding factor; TATA-box factor;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	37698

Additional Information

Dilution	WB 1:1000~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human TBP
Description	As one of the few proteins in the preinitation complex that binds DNA in a sequence-specific manner, it helps position RNA polymerase II over the transcription start site of the gene. However, it is estimated that only 10-20% of human promoters have TATA boxes. Therefore, TBP is probably not the only protein involved in positioning RNA polymerase II. This protein is not suitable for samples where the nuclear envelope has been removed.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

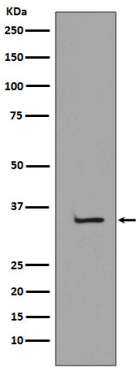
Name	TBP
Synonyms	GTF2D1, TF2D, TFIID {ECO:0000303|PubMed:
Function	The TFIID basal transcription factor complex plays a major role in the initiation of RNA polymerase II (Pol II)-dependent transcription (PubMed:33795473). TFIID recognizes and binds promoters with or without a TATA box via its subunit 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.

Images



Western blot analysis of TBP expression in K562 cell lysate.