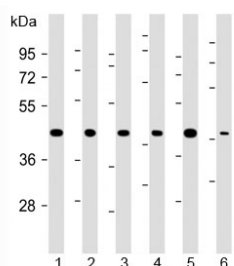


TBP Antibody / TATA-box-binding protein [clone 830CT4.3.3] (F52225)

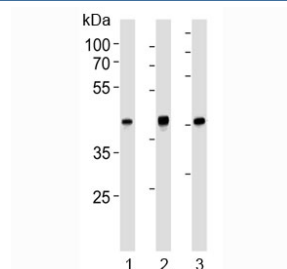
Catalog No.	Formulation	Size
F52225-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52225-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

[Bulk quote request](#)

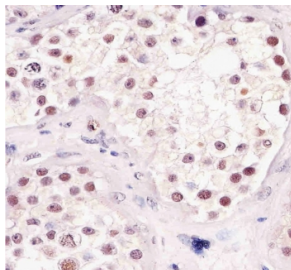
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	830CT4.3.3
Purity	Purified
UniProt	P20226
Localization	Nuclear
Applications	IHC (Paraffin) : 1:25 Western Blot : 1:1000-2:000
Limitations	This TBP antibody is available for research use only.



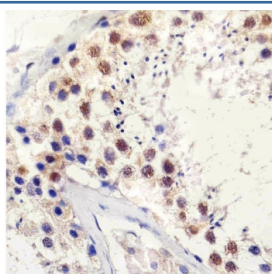
Western blot testing of 1) human 293, 2) (h) HeLa, 3) (h) MDA-MB-231, 4) rat H-4-II-E, 5) (h) HCT-116 and 6) mouse C2C12 cell lysate with TBP antibody at 1:2000. Expected molecular weight: 35-43 kDa.



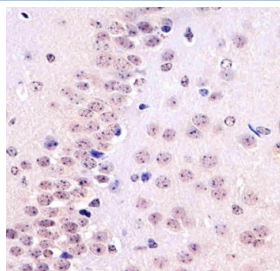
TBP antibody western blot analysis in (1) human HeLa, (2) (h) HepG2, (3) mouse NIH3T3 lysate. Expected molecular weight: 35-43 kDa.



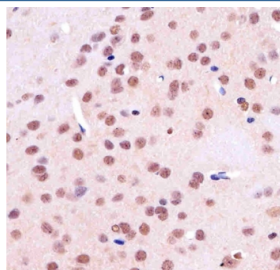
Immunohistochemical analysis of paraffin-embedded human testis using TBP antibody at 1:25 dilution.



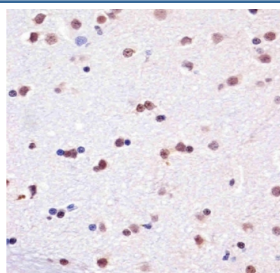
IHC testing of FFPE human testis tissue with TBP antibody at 1:25 dilution. HIER: pH6 citrate buffer.



IHC testing of FFPE mouse brain tissue with TBP antibody at 1:25 dilution. HIER: pH6 citrate buffer.



IHC testing of FFPE rat brain tissue with TBP antibody at 1:25 dilution. HIER: pH6 citrate buffer.



IHC testing of FFPE monkey brain tissue with TBP antibody at 1:25 dilution. HIER: pH6 citrate buffer.

TBP antibody detects TATA-box-binding protein, encoded by the TBP gene. TATA-box-binding protein is a universally required transcription factor that plays a central role in the initiation of transcription by RNA polymerase II. TBP antibody provides researchers with an essential reagent for studying transcriptional regulation, gene expression, and chromatin biology.

TATA-box-binding protein binds specifically to the TATA box DNA sequence located in the promoter regions of many eukaryotic genes. Research using TBP antibody has demonstrated that upon binding, the protein induces a sharp bend in the DNA, enabling recruitment of transcriptional machinery. This includes assembly of the transcription factor IID complex and subsequent recruitment of RNA polymerase II. Through this activity, TATA-box-binding protein functions as a cornerstone of the preinitiation complex, ensuring accurate start site selection for transcription.

Beyond its role in RNA polymerase II transcription, studies with TBP antibody have revealed that TATA-box-binding protein is also required for transcription by RNA polymerase I and RNA polymerase III. In these contexts, TBP associates with distinct sets of TBP-associated factors to direct transcription of ribosomal RNA and small RNAs. This versatility underscores the importance of TATA-box-binding protein as a universal transcription factor in eukaryotic cells.

Regulation of TATA-box-binding protein is critical for gene expression control. Research using TBP antibody has shown that post-translational modifications, including phosphorylation and ubiquitination, modulate TBP activity and stability. Interactions with cofactors and chromatin remodelers further refine promoter selectivity and responsiveness to cellular signals. By linking promoter architecture to transcriptional activation, TBP serves as a master regulator of gene expression programs.

Dysregulation of TATA-box-binding protein has been implicated in disease. Studies with TBP antibody have revealed that mutations in TBP are associated with spinocerebellar ataxia type 17, a neurodegenerative disorder characterized by progressive motor dysfunction and cognitive decline. Expanded polyglutamine repeats within the TBP gene impair transcriptional function and contribute to neuronal degeneration. Beyond genetic disorders, aberrant TBP activity influences cancer biology, where altered transcriptional programs drive uncontrolled proliferation and survival.

In developmental biology, TATA-box-binding protein plays essential roles in embryogenesis and differentiation. Research using TBP antibody has shown that loss of TBP impairs transcription of critical developmental genes, resulting in embryonic lethality in animal models. This demonstrates the fundamental requirement for TBP in establishing gene expression programs during development.

TBP antibody is widely used in chromatin immunoprecipitation, western blotting, and immunohistochemistry. Chromatin immunoprecipitation maps TBP occupancy across the genome, identifying promoter targets of RNA polymerase II. Western blotting detects full-length protein and post-translationally modified forms, while immunohistochemistry reveals tissue-specific expression patterns. These applications make TBP antibody indispensable for studying transcription initiation and regulation.

By providing validated TBP antibody reagents, NSJ Bioreagents supports research into gene regulation, transcriptional control, and disease. Detection of TATA-box-binding protein provides critical insight into how promoters are recognized and how transcriptional programs are orchestrated across eukaryotic cells.

Application Notes

Titration of the TBP antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Purified His-tagged protein was used to produce this monoclonal TBP antibody.

Storage

Aliquot the TBP antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

