abcam

Product datasheet

Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade ab63766

7 Abreviews 34 References 7 Images

Overview

Product name	Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade
Description	Rabbit polyclonal to TATA binding protein TBP - Nuclear Loading Control and ChIP Grade
Host species	Rabbit
Tested applications	**Suitable for:** IP, ICC/IF, ChIP, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chicken, Cow
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab63766 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC/IF	★★★★★ (2)	Use at an assay dependent concentration.
ChIP		Use 5 µg for 25 µg of chromatin.
IHC-P	★★★★★ (1)	Use a concentration of 10 µg/ml.
WB	★★★★☆ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 45 kDa (predicted molecular weight: 38 kDa).

Target

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. 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.

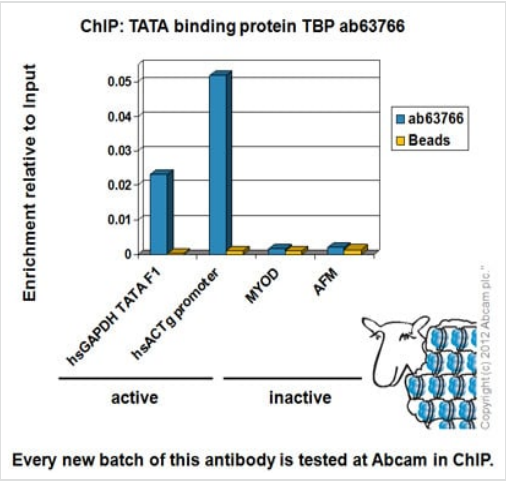
Tissue specificity Widely expressed, with levels highest in the testis and ovary.

Involvement in disease 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.

Sequence similarities Belongs to the TBP family.

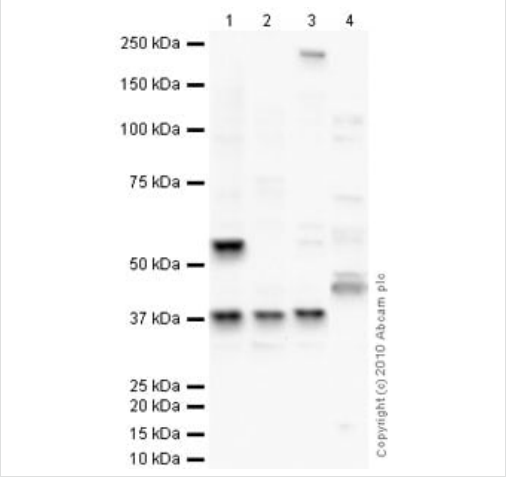
Cellular localization Nucleus.

Images



ChIP - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

Chromatin was prepared from HeLa cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 25µg of chromatin, 5µg of ab63766 (blue), and 20µl of Protein A/G sepharose beads. No antibody was added to the beads control (yellow). The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach for active loci and Taqman approach for inactive loci). Primers and probes are located in the first kb of the transcribed region.



Western blot - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

All lanes : Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766) at 1 µg/ml

Lane 1 : Testis (Mouse) Tissue Lysate
Lane 2 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 3 : Testis (Rat) Tissue Lysate
Lane 4 : Hep G2 nuclear extract lysate (ab14660)

Lysates/proteins at 10 µg per lane.

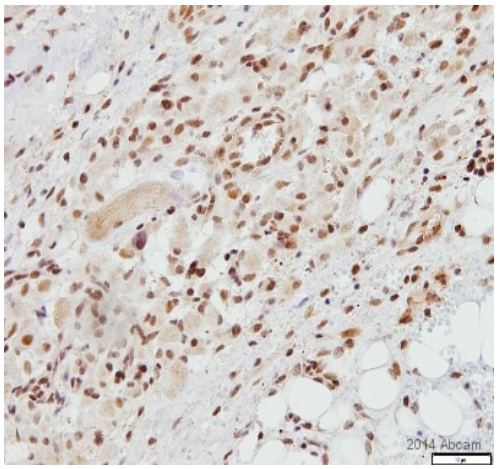
Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 38 kDa
Observed band size: 38,45 kDa
Additional bands at: 55 kDa. We are unsure as to the identity of these extra bands.

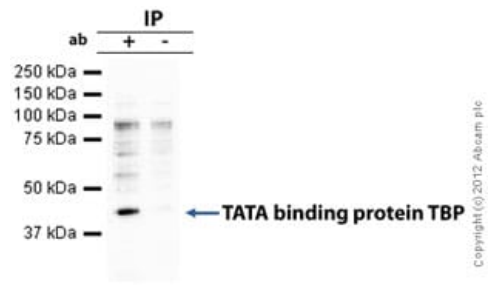
Exposure time: 3 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

This image is courtesy of an anonymous Abreview

ab63766 staining TAT binding protein TBP in human infantile fibromatosis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% FBS/BSA for 3 hours at room temperature; antigen retrieval was by heat mediation in Tris pH9. Samples were incubated with primary antibody (1/100 in TBS + 1% BSA + 1% FBS) for 16 hours. An undiluted HRP-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.



Immunoprecipitation - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

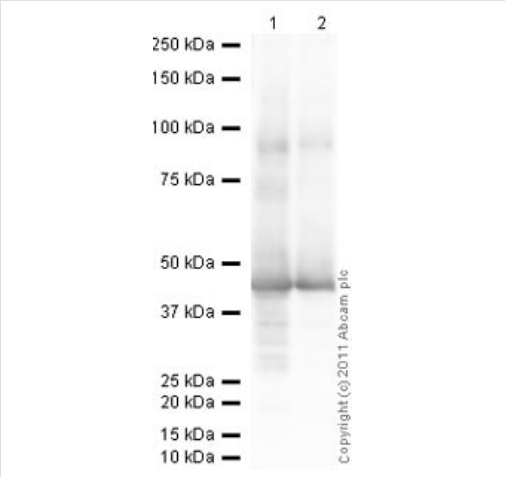
TATA binding protein TBP was immunoprecipitated using 0.5mg HepG2 whole cell extract, 5µg of Rabbit polyclonal to TATA binding protein TBP and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, HepG2 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab63766.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).

Band: 45kDa: TATA binding protein TBP.



Western blot - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

All lanes : Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766) at 1 µg/ml

Lane 1 : Recombinant Human TATA binding protein TBP (ab81897) at 0.1 µg
Lane 2 : Recombinant Human TATA binding protein TBP (ab81897) at 0.01 µg

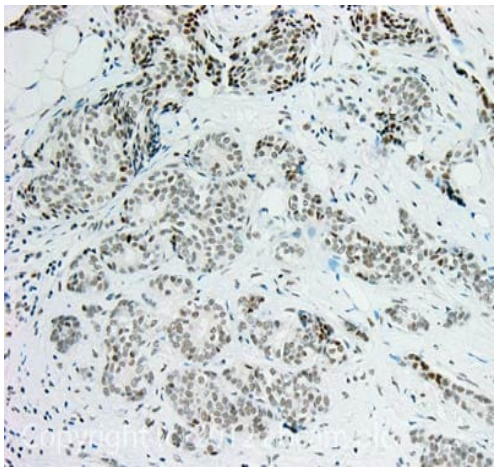
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 38 kDa

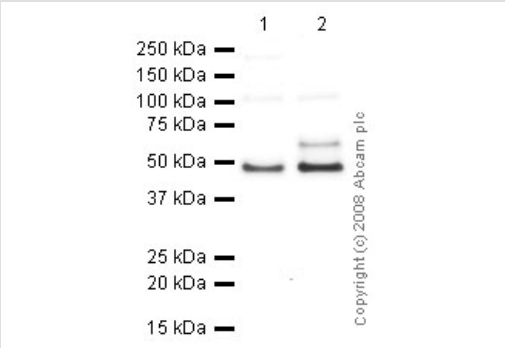
Exposure time: 10 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

IHC image of TATA binding protein TBP staining in Human breast ductal carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab63766, 10µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766)

All lanes : Anti-TATA binding protein TBP antibody - Nuclear Loading Control and ChIP Grade (ab63766) at 1 µg/ml

Lane 1 : HeLa Whole Cell Lysate
Lane 2 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 38 kDa
Observed band size: 45 kDa
Additional bands at: 60 kDa. We are unsure as to the identity of these extra bands.

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