abcam

Product datasheet

Anti-TATA binding protein TBP antibody ab28175

Overview

Product name Anti-TATA binding protein TBP antibody

Description Rabbit polyclonal to TATA binding protein TBP

Host species Rabbit

Specificity Ab28175 recognises TATA binding protein TBP.

Tested applications Suitable for: ChIP

Species reactivity Reacts with: Human

Immunogen Recombinant full length TATA binding protein TBP (Human).

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.

Avoid freeze / thaw cycle.

Storage buffer pH: 7.9

Constituent: PBS

Purity Protein A purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab28175 in the following tested applications.

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

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Application	Abreviews	Notes
ChIP	★★★★★ (2)	Use 5-10 μg for 25 μg of chromatin.

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 Involvement in disease

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

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.

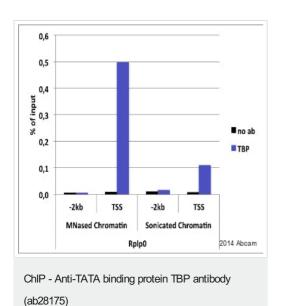
Sequence similarities

Belongs to the TBP family.

Cellular localization

Nucleus.

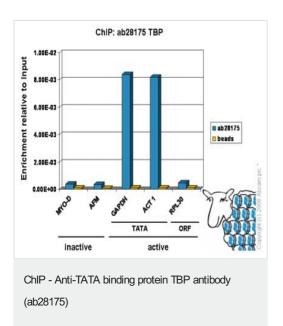
Images



This image is courtesy of an anonymous Abreview

ChIP analysis using ab28175 binding TATA binding protein TBP in mouse liver nuclear tissue lysate. Cells were cross-linked for 10 minutes with 1% paraformaldehyde. Samples were incubated with primary antibody for 16 hours at 4°C in TE pH8, 150mM NaCl, Trition 1%, SDS 0,1%. Protein binding was detected using real-time PCR.

Negative Control: beads.



Chromatin was prepared from Hela cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10min. The ChIP was performed with 25µg of chromatin, 8µg of ab28175 (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 (Taqman and sybr green approach). Primers and probes are located either in the core promoter of the gene (TATA) or in the open reading frame (ORF).

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