

TBP (y-240): sc-33736

BACKGROUND

In eukaryotic systems, initiation of transcription from protein-coding genes is a complex process requiring RNA polymerase II and broad families of auxiliary transcription factors. Such factors can be divided into two major functional classes: the basal factors that are required for transcription of all Pol II genes, including TFIIA, TFIIB, TFIID, TFII E, TFII F and TFII H; and sequence-specific factors that regulate gene expression. The basal transcription factors and Pol II form a specific multiprotein complex near the transcription start site by interacting with core promoter elements such as the TATA box generally located 25-30 base pairs upstream of the transcription start site. Binding of TFIID to the TATA element initiates assembly of the other factors into a pre-initiation complex. The TATA-binding subunit of TFIID (designated TFIIDt or TBP) from higher eukaryotes contains a highly conserved 180 amino acid C-terminal domain.

REFERENCES

1. Maldonado, E., et al. 1990. Factors involved in specific transcription by mammalian RNA polymerase II: role of transcription factors IIA, IID, and IIB during formation of a transcription-competent complex. *Mol. Cell. Biol.* 10: 6335-6347.
2. Peterson, M.G., et al. 1991. Structure and functional properties of human general transcription factor IIE. *Nature* 354: 369-373.
3. Lee, D.K., et al. 1992. TFIIA induces conformational changes in TFIID via interactions with the basic repeat. *Mol. Cell. Biol.* 12: 5189-5196.

SOURCE

TBP (y-240) is a rabbit polyclonal antibody raised against amino acids 1-240 representing full length TBP of *Saccharomyces cerevisiae* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

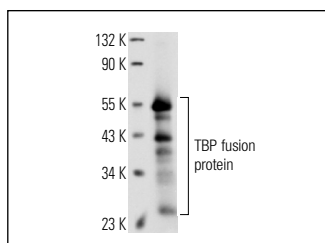
TBP (y-240) is recommended for detection of TBP of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of TBP: 38 kDa.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



TBP (y-240): sc-33736. Western blot analysis of yeast recombinant TBP fusion protein.

SELECT PRODUCT CITATIONS

1. Vankoningsloo, S., et al. 2006. CREB activation induced by mitochondrial dysfunction triggers triglyceride accumulation in 3T3-L1 preadipocytes. *J. Cell Sci.* 119: 1266-1282.
2. Zhang, Z., et al. 2007. Negative elongation factor NELF represses human immunodeficiency virus transcription by pausing the RNA polymerase II complex. *J. Biol. Chem.* 282: 16981-16988.
3. Peng, J., et al. 2007. Brd2 is a TBP-associated protein and recruits TBP into E2F-1 transcriptional complex in response to serum stimulation. *Mol. Cell. Biochem.* 294: 45-54.
4. Jepsen, K., et al. 2007. SMRT-mediated repression of an H3K27 demethylase in progression from neural stem cell to neuron. *Nature* 450: 415-419.
5. Bumgarner, S.L., et al. 2009. Toggle involving *cis*-interfering noncoding RNAs controls variegated gene expression in yeast. *Proc. Natl. Acad. Sci. USA* 106: 18321-18326.
6. Desimone, A.M., et al. 2010. Corepressor-directed preacetylation of histone H3 in promoter chromatin primes rapid transcriptional switching of cell-type-specific genes in yeast. *Mol. Cell. Biol.* 30: 3342-3356.
7. Kleinschmidt, R.A., et al. 2011. Autoregulation of an RNA polymerase II promoter by the RNA polymerase III transcription factor III C (TF(III)C) complex. *Proc. Natl. Acad. Sci. USA* 108: 8385-8389.
8. Plaschka, C., et al. 2015. Architecture of the RNA polymerase II-mediator core initiation complex. *Nature* 518: 376-380.


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