

## TBP (A-9): sc-74596

### 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, TFIIF and TFIIFH; 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 (A-9) is a mouse monoclonal antibody raised against amino acids 1-240 representing full length TBP of *Saccharomyces cerevisiae* origin.

### PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TBP (A-9) is available conjugated to agarose (sc-74596 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74596 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74596 PE), fluorescein (sc-74596 FITC), Alexa Fluor® 488 (sc-74596 AF488), Alexa Fluor® 546 (sc-74596 AF546), Alexa Fluor® 594 (sc-74596 AF594) or Alexa Fluor® 647 (sc-74596 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74596 AF680) or Alexa Fluor® 790 (sc-74596 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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### APPLICATIONS

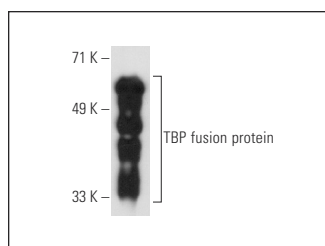
TBP (A-9) is recommended for detection of TBP of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of TBP: 38 kDa.

### RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

### DATA



TBP (A-9): sc-74596. Western blot analysis of yeast recombinant TBP fusion protein.

### SELECT PRODUCT CITATIONS

1. Goalstone, M.L. 2011. ERK5: a novel IKKα-kinase in rat hippocampal neurons. *Can. J. Neurol. Sci.* 38: 639-648.
2. Liu, M., et al. 2018. Dual inhibition of DNA and histone methyltransferases increases viral mimicry in ovarian cancer cells. *Cancer Res.* 78: 5754-5766.
3. Choi, Y.A., et al. 2020. The suppressive effect of dabrafenib, a therapeutic agent for metastatic melanoma, in IgE-mediated allergic inflammation. *Int. Immunopharmacol.* 83: 106398.
4. Yan, J., et al. 2020. T cell-intrinsic IRF5 regulates T cell signaling, migration, and differentiation and promotes intestinal inflammation. *Cell Rep.* 31: 107820.
5. Cheng, Y., et al. 2021. ADAM10 is involved in the oncogenic process and chemo-resistance of triple-negative breast cancer via regulating Notch1 signaling pathway, CD44 and PrPc. *Cancer Cell Int.* 21: 32.
6. Aguilar-Recarte, D., et al. 2022. A positive feedback loop between AMPK and GDF15 promotes metformin antidiabetic effects. *Pharmacol. Res.* 187: 106578.

### STORAGE

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

### RESEARCH USE

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