



Bdp1 (yC-14): sc-26200

BACKGROUND

Bdp1 is the B" component of the *S. cerevisiae* RNA polymerase III transcription factor, TFIIIB, and mediates recruitment of RNA polymerase III to the promoter for multiple rounds of transcription. TFIIIB generally requires TFIIIC assembly factor for proper positioning except when binding to the promoter of the yeast U6 snRNA gene (SNR6) to whose TATA box TFIIIB can bind on its own. TFIIIB assembles autonomously on the upstream promoter of the U6 gene through the interaction of its TBP subunit with a consensus TATA box located at base pair 30. The N-proximal segment of Bdp1 maps to the upstream end of the TFIIIB-DNA complex, while amino acids 299-315 map to the principal DNA-contact site, approximately 8 base pairs upstream of the TATA box. Bdp1 shares an extended interface with Brf, another component of TFIIIB, along the length of the TFIIIB-DNA complex. Bdp1 also interacts with the RNA subunit of RNase P (RPR1), suggesting it may be involved in posttranscriptional processing of RNA polymerase III transcripts.

REFERENCES

1. Kassavetis, G.A., Nguyen, S.T., Kobayashi, R., Kumar, A., Geiduschek, P., Pisano, M. 1995. Cloning, expression, and function of TFC5, the gene encoding the B" component of the *Saccharomyces cerevisiae* RNA polymerase III transcription factor TFIIIB. *Proc. Natl. Acad. Sci. USA* 92: 9786-9790.
2. Whitehall, S.K., Kassavetis, G.A., Geiduschek, E.P. 1995. The symmetry of the yeast U6 RNA gene's TATA box and the orientation of the TATA-binding protein in yeast TFIIIB. *Genes Dev.* 9: 2974-2985.
3. Shah, S.M., Kumar, A., Geiduschek, E.P., Kassavetis, G.A. 1999. Alignment of the B" subunit of RNA polymerase III transcription factor IIIB in its promoter complex. *J. Biol. Chem.* 274: 28736-28744.
4. Ishiguro, A., Kassavetis, G.A., Geiduschek, E.P. 2002. Essential roles of Bdp1, a subunit of RNA polymerase III initiation factor TFIIIB, in transcription and tRNA processing. *Mol. Cell. Biol.* 22: 3264-3275.
5. SWISS-PROT/TrEMBL (P78536). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

SOURCE

Bdp1 (yC-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Bdp1 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.

Blocking peptide available for competition studies, sc-26200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Bdp1 (yC-14) is recommended for detection of Bdp1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

RESEARCH USE

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

PROTOCOLS

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