

Rpb11 (yN-15): sc-26399

BACKGROUND

Organisms respond to environmental stress by adopting changes in gene expression at the transcriptional level. Eukaryotic RNA polymerase II is composed of more than 10 polypeptide chains. The Rpb4 and Rpb7 subunits of yeast RNA polymerase II form a heterodimeric complex essential for promoter-directed transcription initiation in a reconstituted system. Although Rpb7 is the interacting partner of Rpb4, they play independent roles in transcriptional regulation of genes. The yeast DNA directed RNA polymerase II subunit Rpb11 is encoded by a single copy of the RPB11 gene located directly upstream of the topoisomerase I gene, TOPI, on chromosome XV. The sequence of the gene predicts an Rpb11 subunit of 120 amino acids, only two amino acids shorter than the Rpb9 polypeptide, which co-migrates with Rpb11 under most SDS-PAGE conditions. RPB11, an essential gene, encodes a nuclear protein closely related to AC19, an essential subunit shared by RNA polymerases I and III (3,5). Rpb11 contains a 19 amino acid segment found in three other yeast RNA polymerase subunits and the bacterial RNA polymerase subunit alpha.

REFERENCES

1. Woychik, N.A. and Young, R.A. 1989. RNA polymerase II subunit Rpb4 is essential for high- and low-temperature yeast cell growth. *Mol Cell Biol.* 9: 2854-2859.
2. Pillai, B., Sampath, V., Sharma, N. and Sadhale, P. 2001. Rpb4, a non-essential subunit of core RNA polymerase II of *Saccharomyces cerevisiae* is important for activated transcription of a subset of genes. *J Biol Chem.* 276: 30641-30647.
3. Orlicky, S.M., Tran, P.T., Sayre, M.H. and Edwards, A.M. 2001. Dissociable Rpb4-Rpb7 subassembly of rna polymerase II binds to single-strand nucleic acid and mediates a post-recruitment step in transcription initiation. *J Biol Chem.* 276: 10097-10102.
4. Grandemange, S., Schaller, S., Yamano, S., Du Manoir, S., Shpakovski, G.V., Mattei, M.G., Kedinger, C. and Vigneron, M. 2001. A human RNA polymerase II subunit is encoded by a recently generated multigene family. *BMC Mol Biol.* 2: 14.
5. SWISS-PROT/TrEMBL ("P38902"). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

SOURCE

Rpb11 (yN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rpb11 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-26399 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Rpb11 (yN-15) is recommended for detection of Rpb11 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

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.


 MONOS
 Satisfaction
 Guaranteed

Try **Rpb11 (4Y11): sc-58005**, our highly recommended monoclonal alternative to Rpb11 (yN-15).