

Paf1 (yC-20): sc-26347

BACKGROUND

In *Saccharomyces cerevisiae*, RNA polymerase II (RNAP II) mediates transcription elongation, and forms at least two distinct complexes. The first complex contains the Srb/Mediator proteins, whereas the second complex, designated the Paf1 complex, contains Paf1, Cdc73, Hpr1, Ccr4, Rtf1, and Leo1. The Paf1 complex is required for full expression of a subset of yeast genes, particularly those responsive to signals from the Pkc1/MAP kinase cascade. The Paf1 complex mediates transcription elongation by physically associating with other transcription elongation factor complexes, including Spt16/Pob3 and Spt4/Spt5. It also plays an important role in the same regulatory pathways as Swi4/Swi6 and Mbp1/Swi6. Deletion of Paf1 or Cdc73 leads to increased recombination between direct repeats, while Paf1 and Ccr4 mutations demonstrate sensitivity to cell wall-damaging agents. Mutation of Rtf1 suppresses mutations in TBP, alters transcriptional start sites, and affects elongation.

REFERENCES

1. Chang, M., French-Cornay, D., Fan, H.Y., Klein, H., Denis, C.L. and Jaehning, J.A. 1999. A complex containing RNA polymerase II, Paf1p, Cdc73p, Hpr1p, and Ccr4p plays a role in protein kinase C signaling. *Mol. Cell. Biol.* 19: 1056-1067.
2. Mueller, C.L. and Jaehning, J.A. 2002. Ctr9, Rtf1, and Leo1 are components of the Paf1/RNA polymerase II complex. *Mol. Cell. Biol.* 22: 1971-1980.
3. Porter, S.E., Washburn, T.M., Chang, M. and Jaehning, J.A. 2002. The yeast Paf1-RNA polymerase II complex is required for full expression of a subset of cell cycle-regulated genes. *Eukaryotic Cell* 1: 830-842.
4. Betz, J.L., Chang, M., Washburn, T.M., Porter, S.E., Mueller, C.L. and Jaehning, J.A. 2002. Phenotypic analysis of Paf1/RNA polymerase II complex mutations reveals connections to cell cycle regulation, protein synthesis, and lipid and nucleic acid metabolism. *Mol. Genet. Genomics* 268: 272-285.
5. Squazzo, S.L., Costa, P.J., Lindstrom, D.L., Kumer, K.E., Simic, R., Jennings, J.L., Link, A.J., Arndt, K.M. and Hartzog, G.A. 2002. The Paf1 complex physically and functionally associates with transcription elongation factors *in vivo*. *EMBO J.* 21: 1764-74. 11927560

SOURCE

Paf1 (yC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Paf1 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-26347 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

Paf1 (yC-20) is recommended for detection of Paf1 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.