Pse1 (yN-20): sc-26810



The Power to Question

BACKGROUND

Small nuclear RNA (snRNA) represents a class of small RNA molecules that are found within the nucleus of eukaryotic cells. snRNA plays a key role in a variety of important processes such as RNA splicing, regulation of transcription factors and telomere maintenance. The promoter structure of the snRNA genes consists of two major effectors of transcriptional activity: a proximal sequence element (PSE) and a distal sequence element (DSE). Proximal sequence element-binding protein 1 (Pse1) is a transcriptional activator that consists of two subunits. Pse1 binds to and regulates the PSE and DSE of the human U1 snRNA gene.

REFERENCES

- Gunderson, S.I., Murphy, J.T., Knuth, M.W., Steinberg, T.H., Dahlberg, J.H. and Burgess, R.R. 1988. Binding of transcription factors to the promoter of the human U1 RNA gene studied by footprinting. J. Biol. Chem. 263: 17603-17610.
- Knuth, M.W., Gunderson, S.I., Thompson, N.E., Strasheim, L.A. and Burgess, R.R. 1990. 1, a transcription activating protein related to Ku and TREF that binds the prox of the human U1 promoter. J. Biol. Chem. 265: 17911-17920.
- Gunderson, S.I., Knuth, M.W. and Burgess, R.R. 1990. The human U1 snRNA promoter correctly initiates transcription in vitro and is activated by Pse1. Genes Dev. 4: 2048-2060.
- Roberts, M.R., Han, Y., Fienberg, A., Hunihan, L. and Ruddle, F.H. 1994. A DNA-binding activity, TRAC, specific for the TRA element of the transferrin receptor gene copurifies with the Ku autoantigen. Proc. Natl. Acad. Sci. USA 91: 6354-6358.
- Warriar, N., Page, N. and Govindan, M.V. 1996. Expression of human glucocorticoid receptor gene and interaction of nuclear proteins with the transcriptional control element. J. Biol. Chem. 271: 18662-18671.
- 6. Kaffman, A., Rank, N.M. and O'Shea, E.K. 1998. Phosphorylation regulates association of the transcription factor Pho4 with its import receptor Pse1/Kap121. Genes Dev 12: 2673-2683.
- 7. Delahodde, A., Pandjaitan, R., Corral-Debrinski, M. and Jacq, C. 2001. Pse1/Kap121-dependent nuclear localization of the major yeast multidrug resistance (MDR) transcription factor Pdr1. Mol. Microbiol. 39: 304-312.
- 8. Li, C., Harding, G.A., Parise, J., McNamara-Schroeder, K.J. and Stumph, W.E. 2004. Architectural arrangement of cloned proximal sequence element-binding protein subunits on *Drosophila* U1 and U6 snRNA gene promoters. Mol. Cell. Biol. 24: 1897-1906.
- 9. Loch, C.M., Mosammaparast, N., Miyake, T., Pemberton, L.F. and Li, R. 2004. Functional and physical interactions between autonomously replicating sequence-binding factor 1 and the nuclear transport machinery. Traffic 5: 925-935.

SOURCE

Pse1 (yN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pse1 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-26810 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pse1 (yN-20) is recommended for detection of Pse1 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com