



## Srb4 (yC-20): sc-8955

### BACKGROUND

Commitment to cell division occurs at a point late in the G<sub>1</sub> phase of the cell cycle, termed Start. Passage through Start requires the activation of the Cdc28 protein kinase by the cell cycle-regulated G<sub>1</sub> cyclins. Maximal expression of these G<sub>1</sub> cyclins is induced by the heterodimeric transcription factor complex composed of Swi4 (also designated Art1) and Swi6. SWI4 is the DNA-binding subunit of this complex. In addition to binding Swi4, Swi6 forms a complex with Mbp1 (also designated Mpb1). This complex activates S-phase cyclins and genes involved in DNA synthesis Rpb1 is the largest subunit of the yeast RNA polymerase II. Srb4 is a basal transcription factor that is essential for the establishment of the transcription initiation apparatus.

### REFERENCES

1. Koch, T., Moll, T., Neuberger, M., Ahorn, H., and Nasmyth, K. 1993. A role for the transcription factors Mbp1 and Swi4 in progression from G<sub>1</sub> to S phase. *Science* 261: 1551-1557.
2. Koch, C., Schlieffer, A., Ammerer, G., and Nasmyth, K. 1996. Switching transcription on and off during the yeast cell cycle: Clb/Cdc28 kinases activate bound transcription factor Sbf (Swi4/Swi6) at Start, whereas Clb/Cdc28 kinases displace it from the promoter in G<sub>2</sub>. *Genes Dev.* 10: 129-141.
3. Siegmund, R.F. and Nasmyth, K.A. 1996. The *Saccharomyces cerevisiae* Start-specific transcription factor Swi4 interacts through the ankyrin repeats with the mitotic Clb2/Cdc28 kinase and through its conserved carboxy terminus with Swi6. *Mol. Cell. Biol.* 16: 2647-2655.
4. Harrington, L.A. and Andrews, B.J. 1996. Binding to the yeast Swi4, 6-dependent cell cycle box, CACGAAA, is cell cycle regulated *in vivo*. *Nucleic Acids Res.* 24: 558-565.
5. Holstege, F.C., Jennings, E.G., Wyrick, J.J., Lee, T.I., Hengartner, C.J., Green, M.R., Golub, T.R., Lander, E.S., and Young, R.A. 1998. Dissecting the regulatory circuitry of a eukaryotic genome. *Cell* 95: 717-728.

### SOURCE

Srb4 (yC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Srb4 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-8955 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.

### RESEARCH USE

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

### APPLICATIONS

Srb4 (yC-20) is recommended for detection of Srb4 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.

### SELECT PRODUCT CITATIONS

1. Radonjic, M., et al. 2005. Genome-wide analyses reveal RNA polymerase II located upstream of genes poised for rapid response upon *S. cerevisiae* stationary phase exit. *Mol. Cell* 18: 171-183.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.