



## Swe1 (yN-19): sc-6718

### BACKGROUND

Cell cycle progression is controlled at a point late in G1 designated Start. Passage through Start requires the activity of the cyclin-dependent protein kinase Cdc28. Transition from G1 to S phase requires the association of Cdc28 with members of the G1 cyclin family. The G2 to M phase transition requires the M phase cyclins as well as the G2 cyclins. The S phase cyclins coordinate DNA replication with cytokinesis. Expression of the cyclins is controlled via ubiquitin-mediated proteolysis. Cdc28 is regulated by the protein kinase Swe1. This protein, a homolog of the *Saccharomyces pombe* Wee1 protein, phosphorylates Cdc28 and inhibits its activity.

### REFERENCES

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2. Sherlock, G. and Rosamond, J. 1993. Starting to cycle: G1 controls regulating cell division in budding yeast. *J. Gen. Microbiol.* 139: 2531-2541.
3. Basco, R.D., Segal, M.D., and Reed, S.I. 1995. Negative regulation of G1 and G2 by S-phase cyclins of *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 15: 5030-5042.
4. Prendergast, J.A., Ptak, C., Arnason, T.G., and Ellison, M.J. 1995. Increased ubiquitin expression suppresses the cell cycle defect associated with the yeast ubiquitin conjugating enzyme, CDC34 (UBC3). Evidence for a noncovalent interaction between CDC34 and ubiquitin. *J. Biol. Chem.* 270: 9347-9352.
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6. Blondel, M. and Mann, C. 1996. G2 cyclins are required for the degradation of G1 cyclins in yeast. *Nature* 384: 279-282.
7. Ma, X.J., Lu, Q., and Grunstein, M. 1996. A search for proteins that interact genetically with histone H3 and H4 amino termini uncovers novel regulators of the Swe1 kinase in *Saccharomyces cerevisiae*. *Genes and Dev.* 10: 1327-1340.
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### SOURCE

Swe1 (yN-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Swe1 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-6718 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Swe1 (yN-19) is recommended for detection of Swe1 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).

Molecular Weight of Swe1: 65/98 kDa.

Positive Controls: *Saccharomyces cerevisiae* whole cell lysate.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.