



## Snf1 (yN-15): sc-15621

### BACKGROUND

The Snf1/AMP-activated protein kinase family has broad roles in transcriptional, metabolic, and developmental regulation in response to stress. The SNF1 gene of *Saccharomyces cerevisiae* encodes a protein-serine/threonine kinase that is required for derepression of gene expression in response to glucose limitation. Snf1 kinase complexes contain the  $\alpha$  (catalytic) subunit Snf1, one of the three related  $\beta$  subunits Gal83, Sip1, or Sip2, and the  $\gamma$  subunit Snf4. Snf1 is known to associate with several proteins. One is Sip1, a protein that becomes phosphorylated in the presence of Snf1 and thus is a candidate Snf1 kinase substrate. Additionally, Snf1 is essential for the derepression of *Suc*, which encodes invertase and the Snf4 protein is physically associated with Snf1 and positively affects the kinase activity.

### REFERENCES

1. Celenza, J.L. and Carlson, M. 1989. Mutational analysis of the *Saccharomyces cerevisiae* Snf1 protein kinase and evidence for functional interaction with the Snf4 protein. *Mol. Cell. Biol.* 9: 5034-5044.
2. Celenza, J.L., Eng, F.J. and Carlson, M. 1989. Molecular analysis of the SNF4 gene of *Saccharomyces cerevisiae*: evidence for physical association of the Snf4 protein with the Snf1 protein kinase. *Mol. Cell. Biol.* 9: 5045-5054.
3. Le Guen, L., Thomas, M., Bianchi, M., Halford, N.G. and Kreis, M. 1992. Structure and expression of a gene from *Arabidopsis thaliana* encoding a protein related to Snf1 protein kinase. *Gene* 120: 249-254.
4. Estruch, F., Treitel, M.A., Yang, X. and Carlson, M. 1992. N-terminal mutations modulate yeast Snf1 protein kinase function. *Genetics* 132: 639-650.
5. Mylin, L.M., Bushman, V.L., Long, R.M., Yu, X., Lebo, C.M., Blank, T.E. and Hopper, J.E. 1994. Sip1 is a catabolite repression-specific negative regulator of GAL gene expression. *Genetics* 137: 689-700.
6. Vincent, O., Townley, R., Kuchin, S. and Carlson, M. 2001. Subcellular localization of the Snf1 kinase is regulated by specific  $\beta$  subunits and a novel glucose signaling mechanism. *Genes Dev.* 15: 1104-1114.

### SOURCE

Snf1 (yN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Snf1 of *Saccharomyces cerevisiae* origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15621 P, (100  $\mu$ g 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

Snf1 (yN-15) is recommended for detection of Snf1 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](http://www.scbt.com) or our catalog for detailed protocols and support products.