

# SSK1 (γ-300): sc-98758

## BACKGROUND

SSK1 (osmolarity two-component system protein SSK1) is a 712 amino acid cytoplasmic protein. SSK1 is the final receptor of the Sln1-YPD1-SSK1 two-component regulatory system, which, in response to changes in the osmolarity of the extracellular environment, regulates the activity of the Hog1 pathway. During normal osmolarity, the phosphorelay intermediate protein YPD1 maintains SSK1 in a phosphorylated and inactive state. Under high osmolarity conditions, the unphosphorylated form of SSK1 activates SSK2 and SSK22, proteins which further stimulate the Pbs2-Hog1 MAPKK-MAPK pathway.

## REFERENCES

1. Sotelo, J. and Rodríguez-Gabriel, M.A. 2006. Mitogen-activated protein kinase Hog1 is essential for the response to arsenite in *Saccharomyces cerevisiae*. *Eukaryot. Cell* 5: 1826-1830.
2. Menon, V., et al. 2006. Functional studies of the Ssk1p response regulator protein of *Candida albicans* as determined by phenotypic analysis of receiver domain point mutants. *Mol. Microbiol.* 62: 997-1013.
3. Menon, V., et al. 2007. Two-component response regulators Ssk1p and Skn7p additively regulate high-osmolarity adaptation and fungicide sensitivity in *Cochliobolus heterostrophus*. *Eukaryot. Cell* 6: 171-181.
4. Horie, T., et al. 2008. Phosphorylated SSK1 prevents unphosphorylated SSK1 from activating the SSK2 mitogen-activated protein kinase kinase in the yeast high-osmolarity glycerol osmoregulatory pathway. *Mol. Cell. Biol.* 28: 5172-5183.
5. Kaserer, A.O., et al. 2009. Effects of osmolytes on the Sln1-YPD1-SSK1 phosphorelay system from *Saccharomyces cerevisiae*. *Biochemistry* 48: 8044-8050.
6. Krantz, M., et al. 2009. Robustness and fragility in the yeast high osmolarity glycerol (HOG) signal-transduction pathway. *Mol. Syst. Biol.* 5: 281.

## SOURCE

SSK1 (γ-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of SSK1 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.

## APPLICATIONS

SSK1 (γ-300) is recommended for detection of SSK1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

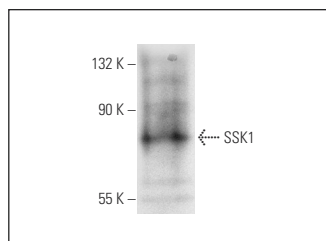
Molecular Weight of SSK1: 79 kDa.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SSK1 (γ-300): sc-98758. Western blot analysis of SSK1 expression in *Saccharomyces cerevisiae* whole cell lysate.

## 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.