

Mpk1 (yC-20): sc-6803

BACKGROUND

Yeasts maintain the integrity of their cell walls via a MAP kinase cascade. This cascade consists of a MAP kinase (mitogen-activated protein kinase, also called ERK, for extracellular regulated kinase) as well as several upstream regulatory kinases (MAPKKs or MEKs, for MAP/ERK kinase). Pkc1 (also designated Sst1), a yeast homolog of the mammalian PKC α , β and γ isoforms, transmits extracellular signals to Bck1, a MAPKKK (also called Slk1, Ssp31 or Las3). Bck1 then activates two MAPKKs, Mkk1 and Mkk2 (also referred to as Ssp32 and Ssp33, respectively). These in turn activate the MAP kinase Mpk1 (also called Slt2). Mutants lacking any component of this cascade exhibit a defect in cell lysis resulting from deficient cell wall synthesis. Bck2 (also designated Ctr7) has been identified as a suppressor of Pkc1 and Mpk1 deletions.

REFERENCES

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- Irie, K., Takase, M., Lee, K.S., Levin, D.E., Araki, H., Matsumoto, K. and Oshima, Y. 1993. MKK1 and MKK2, which encode *Saccharomyces cerevisiae* mitogen-activated protein kinase-kinase homologs, function in the pathway mediated by protein kinase C. *Mol. Cell. Biol.* 13: 3076-3083.
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- Levin, D.E., Bowers, B., Chen, C.-Y., Kamada, Y. and Watanabe, M. 1994. Dissecting the protein kinase c/map kinase signalling pathway of *Saccharomyces cerevisiae*. *Cell. Mol. Biol. Res.* 40: 229-239.
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SOURCE

Mpk1 (yC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Mpk1 of *Saccharomyces cerevisiae* origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6803 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Mpk1 (yC-20) is recommended for detection of Mpk1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

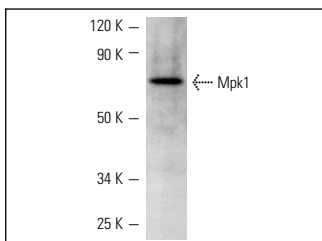
Molecular Weight of Mpk1: 60 kDa.

Positive Controls: *S. 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.

DATA



Mpk1 (yC-20): sc-6803. Western blot analysis of Mpk1 expression in *S. cerevisiae* whole cell lysate.

SELECT PRODUCT CITATIONS

- Hermansyah, Sugiyama, M., Kaneko, Y. and Harashima, S. 2009. Yeast protein phosphatases Ptp2p and Msg5p are involved in G₁-S transition, CLN2 transcription, and vacuole morphogenesis. *Arch. Microbiol.* 191: 721-733.
- Soulard, A., Moes, S., Schütz, F., Jenö, P. and Hall, M.N. 2010. The rapamycin-sensitive phosphoproteome reveals that TOR controls protein kinase A toward some but not all substrates. *Mol. Biol. Cell* 21: 3475-3486.
- Wang, S.L. and Cheng, M.Y. 2012. The defects in cell wall integrity and G₂-M transition of the δ htl1 mutant are interconnected. *Yeast* 29: 45-57.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.



Try **Mpk1 (D-1): sc-374434** or **Mpk1 (E-8): sc-374440**, our highly recommended monoclonal alternatives to Mpk1 (yC-20).