

YSK1 (E-7): sc-398092

BACKGROUND

Several mammalian kinases have been identified which exhibit sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase STE20. STE20 is involved in relaying signals from G protein-coupled receptors, and it lies upstream of a MAP kinase kinase kinase. Mammalian STE20-like kinases include YSK1, KHS, GLK, NIK, HPK1, Krs-1, Krs-2 and GC kinase. YSK1 (yeast SPS/STE20-related kinase 1) is expressed in a wide variety of cell types and tissues and has been shown to have kinase activity. Unlike many of the other STE20-like kinases, however, overexpression of YSK1 does not lead to activation of the SAPK/JNK pathway.

REFERENCES

1. Leberer, E., et al. 1992. The protein kinase homologue Ste20p is required to link the yeast pheromone response G protein $\beta\gamma$ subunits to downstream signalling components. *EMBO J.* 11: 4815-4824.
2. Wu, C., et al. 1995. Molecular characterization of Ste20p, a potential mitogen-activated protein or extracellular signal-regulated kinase kinase (MEK) kinase kinase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 270: 15984-15992.
3. Su., Y.C., et al. 1997. NIK is a new STE20-related kinase that binds NCK and MEKK1 and activates the SAPK/JNK cascade via a conserved regulatory domain. *EMBO J.* 16: 1279-1290.
4. Diener, K., et al. 1997. Activation of the c-Jun N-terminal kinase pathway by a novel protein kinase related to human germinal center kinase. *Proc. Natl. Acad. Sci. USA* 94: 9687-9692.
5. Osada, S., et al. 1997. YSK1, a novel mammalian protein kinase structurally related to STE20 and SPS1, but is not involved in the known MAPK pathways. *Oncogene* 14: 2047-2057.

CHROMOSOMAL LOCATION

Genetic locus: STK25 (human) mapping to 2q37.3; Stk25 (mouse) mapping to 1 D.

SOURCE

YSK1 (E-7) is a mouse monoclonal antibody raised against amino acids 302-357 mapping near the C-terminus of YSK1 of human origin.

PRODUCT

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

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

YSK1 (E-7) is recommended for detection of YSK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for YSK1 siRNA (h): sc-39253, YSK1 siRNA (m): sc-39254, YSK1 shRNA Plasmid (h): sc-39253-SH, YSK1 shRNA Plasmid (m): sc-39254-SH, YSK1 shRNA (h) Lentiviral Particles: sc-39253-V and YSK1 shRNA (m) Lentiviral Particles: sc-39254-V.

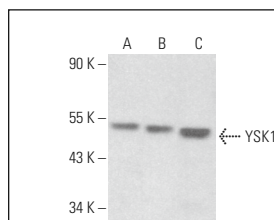
Molecular Weight of YSK1: 48 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, A-431 whole cell lysate: sc-2201 or Hep G2 cell lysate: sc-2227.

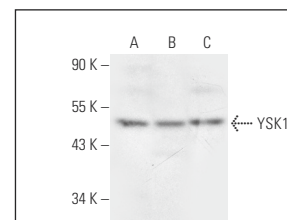
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



YSK1 (E-7): sc-398092. Western blot analysis of YSK1 expression in SW480 (A), F9 (B) and KNRK (C) whole cell lysates.



YSK1 (E-7): sc-398092. Western blot analysis of YSK1 expression in K-562 (A), A-431 (B) and Hep G2 (C) whole cell lysates.

RESEARCH USE

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