

SLK (38): sc-136441

BACKGROUND

SLK (Ste20-like kinase), also known as STK2 (serine/threonine protein kinase 2) or se20-9, is a member of the serine/threonine kinase subfamily, Ste20. This subfamily is comprised of several mammalian kinases which exhibit sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase Ste20, a protein involved in relaying signals from G protein-coupled receptors to cytosolic MAP kinase cascades. Members of this subfamily include KHS, GLK, YSK1, HPK1, Krs-1, Krs-2, GC kinase, HGK and SLK. SLK is a ubiquitously expressed protein that localizes to the cytoplasm and contains an N-terminal protein kinase domain, a central coiled-coil domain and a C-terminal ATH domain. SLK is activated through cleavage by caspase-3. SLK indirectly associates with microtubules and plays an important role in cellular stress, cell motility, cell death and cytoskeletal dynamics.

REFERENCES

1. Zhang, Y.H., et al. 2002. Expression of the Ste20-like kinase SLK during embryonic development and in the murine adult central nervous system. *Brain Res. Dev. Brain Res.* 139: 205-215.
2. Wagner, S., et al. 2002. Association of the Ste20-like kinase (SLK) with the microtubule. Role in Rac1-mediated regulation of Actin dynamics during cell adhesion and spreading. *J. Biol. Chem.* 277: 37685-37692.
3. Cybulsky, A.V., et al. 2004. Renal expression and activity of the germinal center kinase SK2. *Am. J. Physiol. Renal Physiol.* 286: 16-25.
4. Storbeck, C.J., et al. 2004. Ste20-like kinase SLK displays myofiber type specificity and is involved in C2C12 myoblast differentiation. *Muscle Nerve* 29: 553-564.
5. O'Reilly, P.G., et al. 2005. The Ste20-like kinase SLK is required for cell cycle progression through G₂. *J. Biol. Chem.* 280: 42383-42390.
6. Hao, W., et al. 2006. Induction of apoptosis by the Ste20-like kinase SLK, a germinal center kinase that activates apoptosis signal-regulating kinase and p38. *J. Biol. Chem.* 281: 3075-3084.
7. Chaar, Z., et al. 2006. v-Src-dependent down-regulation of the Ste20-like kinase SLK by casein kinase II. *J. Biol. Chem.* 281: 28193-28199.

CHROMOSOMAL LOCATION

Genetic locus: Slk (mouse) mapping to 19 D1.

SOURCE

SLK (38) is a mouse monoclonal antibody raised against amino acids 597-687 of SLK of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLK (38) is available conjugated to agarose (sc-136441 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136441 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

SLK (38) is recommended for detection of SLK of mouse 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SLK siRNA (m): sc-76515, SLK shRNA Plasmid (m): sc-76515-SH and SLK shRNA (m) Lentiviral Particles: sc-76515-V.

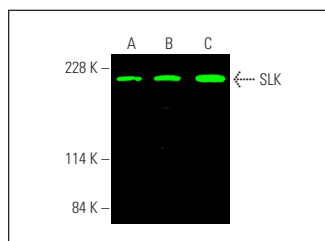
Molecular Weight of SLK: 200 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, c4 whole cell lysate: sc-364186 or mouse cerebellum extract: sc-2403.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



SLK (38): sc-136441. Near-infrared western blot analysis of SLK expression in mouse cerebellum tissue extract (A) and Neuro-2A (B) and c4 (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

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 for detailed protocols and support products.