

SLK (G-9): sc-515493

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

- 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.
- 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.
- Cybalsky, A.V., et al. 2004. Renal expression and activity of the germinal center kinase SK2. *Am. J. Physiol. Renal Physiol.* 286: F16-F25.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: SLK (human) mapping to 10q24.33; Slk (mouse) mapping to 19 D1.

SOURCE

SLK (G-9) is a mouse monoclonal antibody raised against amino acids 1186-1235 mapping at the C-terminus of SLK of human 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 (G-9) is available conjugated to agarose (sc-515493 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515493 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515493 PE), fluorescein (sc-515493 FITC), Alexa Fluor® 488 (sc-515493 AF488), Alexa Fluor® 546 (sc-515493 AF546), Alexa Fluor® 594 (sc-515493 AF594) or Alexa Fluor® 647 (sc-515493 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515493 AF680) or Alexa Fluor® 790 (sc-515493 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SLK (G-9) is recommended for detection of SLK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SLK siRNA (h): sc-76514, SLK siRNA (m): sc-76515, SLK shRNA Plasmid (h): sc-76514-SH, SLK shRNA Plasmid (m): sc-76515-SH, SLK shRNA (h) Lentiviral Particles: sc-76514-V and SLK shRNA (m) Lentiviral Particles: sc-76515-V.

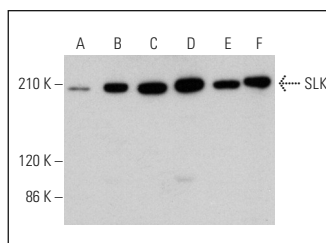
Molecular Weight of SLK: 200 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, RT-4 whole cell lysate: sc-364257 or COLO 205 whole cell lysate: sc-364177.

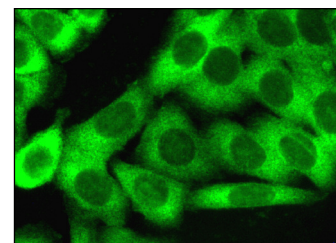
RECOMMENDED SUPPORT REAGENTS

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 (G-9): sc-515493. Western blot analysis of SLK expression in A549 (A), MCF7 (B), HeLa (C), RT-4 (D), Hep G2 (E) and COLO 205 (F) whole cell lysates.



SLK (G-9): sc-515493. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Kschonsak, Y.T. and Hoffmann, I. 2018. Activated ezrin controls MISF levels to ensure correct NuMA polarization and spindle orientation. *J. Cell Sci.* 131 pii: jcs214544.

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.