

SKIP (C-19): sc-12073

BACKGROUND

The inositol polyphosphate 5-phosphatases selectively remove the phosphate from the 5-position of various phosphatidylinositols, which generate second messengers in response to extracellular signals. SKIP (skeletal muscle and kidney enriched inositol phosphatase) is a Type II 5-phosphatase that contains two highly conserved catalytic motifs. It is predominantly expressed in skeletal muscle, heart, brain and kidney, but can also be detected in some tissues as a shorter protein, which is produced by alternative splicing. SKIP has a high affinity for phosphatidylinositol 4,5-bisphosphate as a substrate as well as inositol 1,4,5-trisphosphate, inositol 1,3,4,5-tetrakisphosphate and phosphatidylinositol 3,4,5-trisphosphate. SKIP is localized in the cytoplasm and at ruffling membranes. Cells expressing SKIP display a loss of actin stress fibers where the protein was localized, suggesting that SKIP plays a negative role in regulating the Actin cytoskeletal structure.

REFERENCES

- Mitchell, C.A., et al. 1996. Regulation of second messengers by the inositol polyphosphate 5-phosphatases. *Biochem. Soc. Trans.* 24: 994-1000.
- Zhang, X., et al. 1998. Phosphatidylinositol signalling reactions. *Semin. Cell Dev. Biol.* 9: 153-160.
- Erneux, C., et al. 1998. The diversity and possible functions of the inositol polyphosphate 5-phosphatases. *Biochim. Biophys. Acta* 1436: 185-199.
- Mochizuki, Y., et al. 1999. Novel inositol polyphosphate 5-phosphatase localizes at membrane ruffles. *J. Biol. Chem.* 274: 36790-36795.
- Ijuin, T., et al. 2000. Identification and characterization of a novel inositol polyphosphate 5-phosphatase. *J. Biol. Chem.* 275: 10870-10875.
- Gurung, R., et al. 2003. Identification of a novel domain in two mammalian inositol-polyphosphate 5-phosphatases that mediates membrane ruffle localization. The inositol 5-phosphatase skip localizes to the endoplasmic reticulum and translocates to membrane ruffles following epidermal growth factor stimulation. *J. Biol. Chem.* 278: 11376-11385.
- Ijuin, T., et al. 2003. SKIP negatively regulates Insulin-induced GLUT4 translocation and membrane ruffle formation. *Mol. Cell. Biol.* 23: 1209-1220.

CHROMOSOMAL LOCATION

Genetic locus: INPP5K (human) mapping to 17p13.3.

SOURCE

SKIP (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SKIP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-12073 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

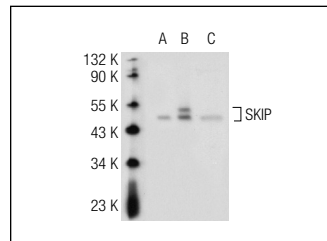
SKIP (C-19) is recommended for detection of SKIP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SKIP siRNA (h): sc-106937, SKIP shRNA Plasmid (h): sc-106937-SH and SKIP shRNA (h) Lentiviral Particles: sc-106937-V.

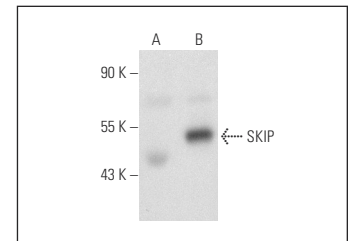
Molecular Weight of SKIP splice variants: 43/51 kDa.

Positive Controls: SKIP (h): 293T Lysate: sc-159714, HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200.

DATA



SKIP (C-19): sc-12073. Western blot analysis of SKIP expression in non-transfected 293T: sc-117752 (A), human SKIP transfected 293T: sc-159714 (B) and HeLa (C) whole cell lysates.



SKIP (C-19): sc-12073. Western blot analysis of SKIP expression in non-transfected: sc-110760 (A) and human SKIP transfected: sc-158962 (B) 293 whole cell lysates.

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 or our catalog for detailed protocols and support products.



Try **SKIP (B-6): sc-365362**, our highly recommended monoclonal alternative to SKIP (C-19).