

SKIP (B-6): sc-365362

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.

CHROMOSOMAL LOCATION

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

SOURCE

SKIP (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 419-443 at the C-terminus of SKIP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SKIP (B-6) is available conjugated to agarose (sc-365362 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365362 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365362 PE), fluorescein (sc-365362 FITC), Alexa Fluor® 488 (sc-365362 AF488), Alexa Fluor® 546 (sc-365362 AF546), Alexa Fluor® 594 (sc-365362 AF594) or Alexa Fluor® 647 (sc-365362 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365362 AF680) or Alexa Fluor® 790 (sc-365362 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365362 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

SKIP (B-6) is recommended for detection of SKIP of 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), immunohistochemistry (including paraffin-embedded sections) (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.

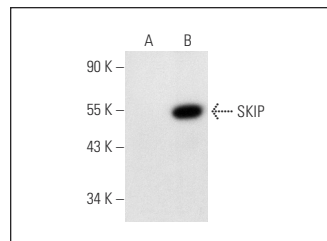
Molecular Weight of SKIP splice variants: 43/51 kDa.

Positive Controls: A-673 nuclear extract: sc-2128, HeLa nuclear extract: sc-2120 or SKIP (h3): 293 Lysate: sc-158962.

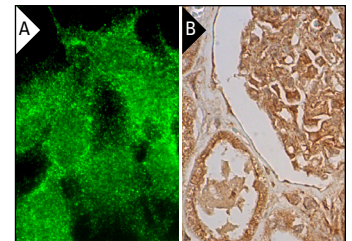
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SKIP (B-6): sc-365362. Western blot analysis of SKIP expression in non-transfected: sc-110760 (A) and human SKIP transfected: sc-158962 (B) 293 whole cell lysates.



SKIP (B-6): sc-365362. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in glomeruli and cells in tubules (B).

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.