StIP1 (S-17): sc-69010

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BIOTECHNOLOGY

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BACKGROUND

One member of the Stat family, Stat3, participates in a wide range of biological processes including nephrogenesis, gliogenesis, hepatogenesis, T cell proliferation, inflammation and oncogenesis. Many of these responses are triggered by the IL-6 family of cytokines, which transduce their vital signals through a common gp130 receptor chain. A novel Stat3-interacting protein, StIP1, contains 12 WD40 repeats, which mediate protein-protein interactions. StIP1 exhibits an affinity for members of the JNK family and may play a specific role in regulating Stat3 activation. Overexpression of StIP1 blocks Stat3 activation, nuclear translocation and Stat3-dependent induction of a reporter gene, suggesting that StIP1 regulates the ligand-dependent activation of Stat3, probably by serving as a scaffold protein that promotes the interaction between JNK and the Stat3 substrate. Because StIP1 can associate with several other members of the Stat family, it may serve a broad role in cyto-kine-signaling events.

REFERENCES

1. Darnell, J.E. 1997. Stats and gene regulation. Science 277: 1630-1635.

2. Bonni, A., Sun, Y., Nadal-Vicens, M., Bhatt, A., Frank, D.A., Rozovosky, I., Stahl, N., Yancopoulos, G.D. and Greenberg, M.E. 1997. Regulation of gliogenesis in the central nervous system by the JAK-Stat signaling pathway. Science 278: 477-483.

3. Boccaccio, C., Ando, M., Tamagnone, L., Bardelli, A., Michieli, P., Attistini, C. and Comoglio, P.M. 1998. Induction of epithelial tubules by growth factor HGF depends on the Stat pathway. Nature 391: 285-288.

4. Bromberg, J.F., Wrzeszczynska, M.H., Devgan, G., Zhao, Y., Pestell, R.G., Albanese, C. and Darnell, J.E. 1999. Stat3 as an oncogene. Cell 98: 295-303.

5. Barasch, J., Yang, J., Ware, C.B., Taga, T., Yoshida, K., Erdjument-Bromage, H., Tempst, P., Parravicini, E., Malach, S., Aranoff, T., et al. 1999. Mesenchymal to epithelial conversion in rat metanephros is induced by LIF. Cell 99: 377-386.

6. Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.

CHROMOSOMAL LOCATION

Genetic locus: ELP2 (human) mapping to 18q12.2; Elp2 (mouse) mapping to 18 A2.

SOURCE

StIP1 (S-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of StIP1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69010 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

StIP1 (S-17) is recommended for detection of StIP1 of mouse, rat and 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).

StIP1 (S-17) is also recommended for detection of StIP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for StIP1 siRNA (h): sc-44436, StIP1 siRNA (m): sc-44437, StIP1 shRNA Plasmid (h): sc-44436-SH, StIP1 shRNA Plasmid (m): sc-44437-SH, StIP1 shRNA (h) Lentiviral Particles: sc-44436-V and StIP1 shRNA (m) Lentiviral Particles: sc-44437-V.

Molecular Weight of StIP1: 93 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Stlp1 (h): 293T Lysate: sc-115308 or RAW 264.7 whole cell lysate: sc-2211.

DATA
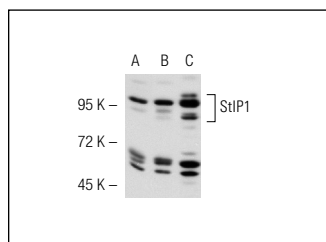
StIP1 (S-17): sc-69010. Western blot analysis of StIP1 expression in non-transfected 293T: sc-117752 (**A**), human StIP1 transfected 293T: sc-115308 (**B**) and RAW 264.7 (**C**) whole cell lysates.

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.

MONOS
Satisfation Guaranteed

Try **StIP1 (C-5): sc-393475**, our highly recommended monoclonal alternative to StIP1 (S-17).