SANTA CRUZ BIOTECHNOLOGY, INC.

StIp1 (M-17): sc-15278

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 cytokine-signaling events.

REFERENCES

1. Darnell, J.E. 1997. Stats and gene regulation. Science 277: 1630-1635.
2. Bonni, A., et al. 1997. Regulation of gliogenesis in the central nervous system by the JAK-Stat signaling pathway. Science 278: 477-483.
3. Boccaccio, C., et al. 1998. Induction of epithelial tubules by growth factor HGF depends on the Stat pathway. Nature 391: 285-288.
4. Bromberg, J.F., et al. 1999. Stat3 as an oncogene. Cell 98: 295-303.
5. Barasch, J., et al. 1999. Mesenchymal to epithelial conversion in rat metanephros is induced by LIF. Cell 99: 377-386.
6. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
7. Sano, S., et al. 2000. Keratinocyte-specific ablation of Stat3 exhibits impaired skin remodeling, but does not affect skin morphogenesis. EMBO J. 18: 4657-4668.
8. Collum, R.G., et al. 2000. A Stat3-interacting protein (StIP1) regulates cytokine signal transduction. Proc. Natl. Acad. Sci. USA 97: 10120-10125.

CHROMOSOMAL LOCATION

Genetic locus: Elp2 (mouse) mapping to 18 A2.

SOURCE

StIp1 (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of StIp1 of mouse 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-15278 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

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

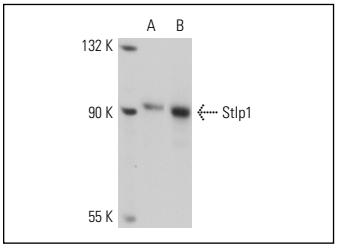
StIP1 (M-17) is also recommended for detection of StIP1 in additional species, including equine, bovine and porcine.

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

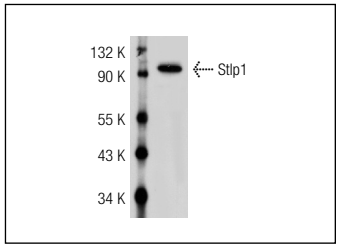
Molecular Weight of StIp1: 93 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, TK-1 whole cell lysate: sc-364798 or BYDP whole cell lysate: sc-364368.

DATA



StIp1 (M-17): sc-15278. Western blot analysis of StIp1 expression in RAW 264.7 (**A**) and BYDP (**B**) whole cell lysates.



StIp1 (M-17): sc-15278. Western blot analysis of StIp1 expression in TK-1 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.