SANTA CRUZ BIOTECHNOLOGY, INC.

StIP1 (M-300): sc-33152

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., 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: STATIP1 (human) mapping to 18q12.2; Statip1 (mouse) mapping to 18 A2.

SOURCE

StIP1 (M-300) is a rabbit polyclonal antibody raised against amino acids 532-831 mapping at 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.

STORAGE

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

APPLICATIONS

StIP1 (M-300) 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).

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, StIP1 shRNA (m) Lentiviral Particles: sc-44437-V.

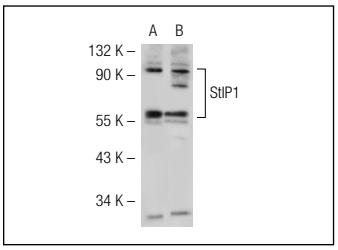
Molecular Weight of StIP1: 93 kDa.

Positive Controls: Stlp1 (h): 293T Lysate: sc-115308, NIH/3T3 nuclear extract: sc-2138 or HeLa nuclear extract: sc-2120.

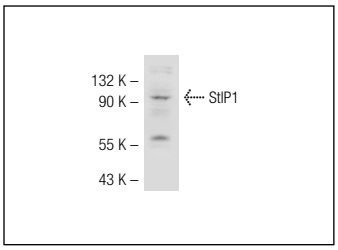
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



StIP1 (M-300): sc-33152. Western blot analysis of StIP1 expression in non-transfected: sc-117752 (**A**) and human StIP1 transfected: sc-115308 (**B**) 293T whole cell lysate.



StIP1 (M-300): sc-33152. Western blot analysis of StIP1 expression in HeLa nuclear extract.

RESEARCH USE

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