

StIP1 (C-5): sc-393475

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.

CHROMOSOMAL LOCATION

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

SOURCE

StIP1 (C-5) is a mouse monoclonal antibody raised against amino acids 532-831 mapping at the C-terminus of StIP1 of mouse 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.

StIP1 (C-5) is available conjugated to agarose (sc-393475 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393475 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393475 PE), fluorescein (sc-393475 FITC), Alexa Fluor® 488 (sc-393475 AF488), Alexa Fluor® 546 (sc-393475 AF546), Alexa Fluor® 594 (sc-393475 AF594) or Alexa Fluor® 647 (sc-393475 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393475 AF680) or Alexa Fluor® 790 (sc-393475 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

StIP1 (C-5) is recommended for detection of StIP1 of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

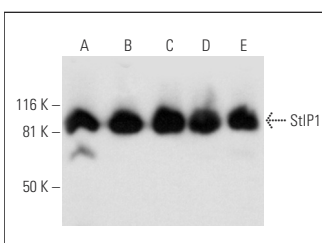
Molecular Weight of StIP1: 93 kDa.

Positive Controls: TK-1 whole cell lysate: sc-364798, BYDP whole cell lysate: sc-364368 or NIH/3T3 whole cell lysate: sc-2210.

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.

DATA



StIP1 (C-5): sc-393475. Western blot analysis of StIP1 expression in RAW 264.7 (A), TK-1 (B), BYDP (C), NIH/3T3 (D) and c4 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sun, X., et al. 2019. Stress induced phosphoprotein 1 promotes tumor growth and metastasis of melanoma via modulating JAK2/STAT3 pathway. *Biomed. Pharmacother.* 116: 108962.

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.