

# TIP-1 (G-13): sc-109086

## BACKGROUND

Tax interaction protein 1 (TIP-1), also known as Tax1-binding protein 3 or glutaminase-interacting protein 3, is a 124 amino acid protein localized to the cytoplasm and nucleus. TIP-1 contains one PDZ domain, through which most of its interactions with other proteins are made. The PDZ domain of TIP-1 interacts with the C-terminus of Rhotekin to facilitate Rho-mediated activation of the FOS serum response element. The PDZ domain also interacts with  $\beta$ -catenin to inhibit the transcriptional activity of  $\beta$ -catenin. TIP-1 may also act as an inhibitor of the Wnt signaling pathway. TIP-1 has been detected in a variety of cell lines, including HeLa, and is weakly expressed in peripheral blood leukocytes.

## REFERENCES

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2. Reynaud, C., et al. 2000. The PDZ protein TIP-1 interacts with the Rho effector Rhotekin and is involved in Rho signaling to the serum response element. *J. Biol. Chem.* 275: 33962-33968.
3. Olalla, L., et al. 2001. The C-terminus of human glutaminase L mediates association with PDZ domain-containing proteins. *FEBS Lett.* 488: 116-122.
4. Hall, W.W. and Fujii, M. 2005. Deregulation of cell-signaling pathways in HTLV-1 infection. *Oncogene* 24: 5965-5975.
5. Xie, L., et al. 2006. PDZ binding motif of HTLV-1 Tax promotes virus-mediated T-cell proliferation *in vitro* and persistence *in vivo*. *Blood* 107: 1980-1988.
6. Alewine, C., et al. 2006. TIP-1 has PDZ scaffold antagonist activity. *Mol. Biol. Cell* 17: 4200-4211.
7. Park, H.U., et al. 2006. Human T-cell leukemia virus type 1 Tax attenuates gamma-irradiation-induced apoptosis through physical interaction with Chk2. *Oncogene* 25: 438-447.
8. Besser, J., et al. 2007. Tip-1 induces filopodia growth and is important for gastrulation movements during zebrafish development. *Dev. Growth Differ.* 49: 205-214.
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## CHROMOSOMAL LOCATION

Genetic locus: TAX1BP3 (human) mapping to 17p13.2; Tax1bp3 (mouse) mapping to 11 B4.

## SOURCE

TIP-1 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TIP-1 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109086 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TIP-1 (G-13) is recommended for detection of TIP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TIP-1 (G-13) is also recommended for detection of TIP-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TIP-1 siRNA (h): sc-94102, TIP-1 siRNA (m): sc-154278, TIP-1 shRNA Plasmid (h): sc-94102-SH, TIP-1 shRNA Plasmid (m): sc-154278-SH, TIP-1 shRNA (h) Lentiviral Particles: sc-94102-V and TIP-1 shRNA (m) Lentiviral Particles: sc-154278-V.

Molecular Weight of TIP-1: 14 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **TIP-1 (1H5): sc-517168**, our highly recommended monoclonal alternative to TIP-1 (G-13).