# TIS11B (G-14): sc-79149



The Power to Question

### **BACKGROUND**

TIS11B (tetradecanoyl phorbol acetate-inducible-sequence 11b), also known as ZFP36L1, BRF1 (butyrate response factor 1), ERF1 (EGF-response factor 1), cMG1, Berg36 or RNF162B, is a member of the tristetraprolin family. Triste-traprolin (TTP), or TIS11, is a zinc-binding protein encoded by the immediate-early response gene, Zfp-36. TIS11B, a relative of TTP, localizes to the nucleus and may function as a transcription factor involved in regulating the growth factor response. It is an evolutionarily conserved protein containing two C3H1-type zinc fingers and a repeating cys-his motif. TIS11B is an mRNA binding protein and is known to interact with the 3'-untranslated region of VEGF mRNA, thereby decreasing its stability. This suggests that TIS11B is a potential target in antiangiogenic therapy. In addition, TIS11B may also be an important regulator of myogenesis, as its expression is upregulated during murine myoblast differentiation.

## **REFERENCES**

- Taylor, G.A., Lai, W.S., Oakey, R.J., Seldin, M.F., Shows, T.B., Eddy, R.L., Jr. and Blackshear, P.J. 1991. The human TTP protein: sequence, alignment with related proteins, and chromosomal localization of the mouse and human genes. Nucleic Acids Res. 19: 3454.
- Kaneda, N., Oshima, M., Chung, S.Y. and Guroff, G. 1992. Sequence of a rat TIS11 cDNA, an immediate early gene induced by growth factors and phorbol esters. Gene 118: 289-291.
- 3. Johnson, B.A., Geha, M. and Blackwell, T.K. 2000. Similar but distinct effects of the tristetraprolin/TIS11 immediate-early proteins on cell survival. Oncogene 19: 1657-1664.
- 4. Johnson, B.A. and Blackwell, T.K. 2002. Multiple tristetraprolin sequence domains required to induce apoptosis and modulate responses to TNF $\alpha$  through distinct pathways. Oncogene 21: 4237-4246.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601064. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Ciais, D., Cherradi, N., Bailly, S., Grenier, E., Berra, E., Pouyssegur, J., Lamarre, J. and Feige, J.J. 2004. Destabilization of vascular endothelial growth factor mRNA by the zinc-finger protein TIS11B. Oncogene 23: 8673-8680.
- Cherradi, N., Lejczak, C., Desroches-Castan, A. and Feige, J.J. 2006. Antagonistic functions of tetradecanoyl phorbol acetate-inducible-sequence 11B and HuR in the hormonal regulation of vascular endothelial growth factor messenger ribonucleic acid stability by adrenocorticotropin. Mol. Endocrinol. 20: 916-930.
- Busse, M., Schwarzburger, M., Berger, F., Hacker, C. and Munz, B. 2007.
  Strong induction of the TIS11B gene in myogenic differentiation. Eur. J. Cell Biol. 87: 31-38.

## CHROMOSOMAL LOCATION

Genetic locus: ZFP36L1 (human) mapping to 14q24.1; Zfp36l1 (mouse) mapping to 12 C3.

#### **SOURCE**

TIS11B (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TIS11B of human origin.

### **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-79149 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79149 X, 200  $\mu$ g/0.1 ml.

### **APPLICATIONS**

TIS11B (G-14) is recommended for detection of TIS11B 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).

TIS11B (G-14) is also recommended for detection of TIS11B in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for TIS11B siRNA (h): sc-76672, TIS11B siRNA (m): sc-76673, TIS11B shRNA Plasmid (h): sc-76672-SH, TIS11B shRNA Plasmid (m): sc-76673-SH, TIS11B shRNA (h) Lentiviral Particles: sc-76672-V and TIS11B shRNA (m) Lentiviral Particles: sc-76673-V.

TIS11B (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of TIS11B: 36 kDa.

Molecular Weight (observed) of TIS11B: 32/36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

# **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) with UltraCruz™ Mounting Medium: sc-24941.

#### **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.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**