

TIS11B (1A3): sc-293267



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. Tristetraprolin (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

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2. Kaneda, N., et al. 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., et al. 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 α 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/>
6. Ciais, D., et al. 2004. Destabilization of vascular endothelial growth factor mRNA by the zinc-finger protein TIS11B. *Oncogene* 23: 8673-8680.
7. Cherradi, N., et al. 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.
8. Busse, M., et al. 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 (1A3) is a mouse monoclonal antibody raised against amino acids 1-108 of TIS11B of human origin.

PRODUCT

Each vial contains 100 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TIS11B (1A3) 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), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Molecular Weight (predicted) of TIS11B: 36 kDa.

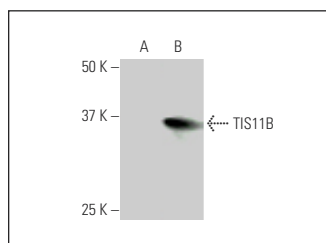
Molecular Weight (observed) of TIS11B: 32/36 kDa.

Positive Controls: TIS11B transfected 293T whole cell lysate.

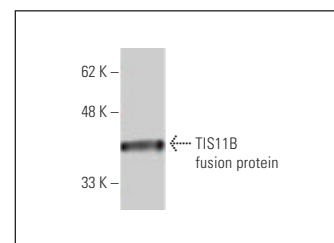
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

DATA



TIS11B (1A3): sc-293267. Western blot analysis of TIS11B expression in non-transfected (A) and TIS11B transfected (B) 293T whole cell lysates.



TIS11B (1A3): sc-293267. Western blot analysis of human recombinant TIS11B fusion protein.

SELECT PRODUCT CITATIONS

1. Park, S., et al. 2023. The mammalian midbody and midbody remnant are assembly sites for RNA and localized translation. *Dev. Cell* 58: 1917-1932.e6.

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.