



TTP (h2): 293T Lysate: sc-178099

BACKGROUND

Tristetraprolin (TTP), also known as Nup475 and TIS11, is a zinc-binding protein encoded by the immediate-early response gene, Zfp-36. Stimulation of quiescent fibroblasts by mitogens, including platelet derived growth factor and fibroblast growth factor, results in the serine phosphorylation of TTP and the rapid redistribution of the protein from the nucleus to the cytoplasm. *In vitro* studies have demonstrated that TTP is phosphorylated by p42 MAP kinase, indicating that the activity of TTP may be regulated by the MAP kinase pathway *in vivo*. Knockout mice deficient in TTP develop autoimmunity, inflammatory arthritis and dermatitis. These conditions can be reversed by blocking the activity of the inflammatory mediator, tumor necrosis factor- α (TNF- α), suggesting that TTP may function to negatively regulate the expression of TNF- α .

REFERENCES

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2. 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. Taylor, G.A., Thompson, M.J., Lai, W.S. and Blackshear, P.J. 1995. Phosphorylation of tristetraprolin, a potential zinc finger transcription factor, by mitogen stimulation in intact cells and by mitogen-activated protein kinase *in vitro*. *J. Biol. Chem.* 270: 13341-13347.
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5. Taylor, G.A., Carballo, E., Lee, D.M., Lai, W.S., Thompson, M.J., Patel, D.D. and Schenkman, D.I. 1996. Mitogens stimulate the rapid nuclear to cytosolic translocation of tristetraprolin, a potential zinc-finger transcription factor. *Mol. Endocrinol.* 10: 140-146.
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CHROMOSOMAL LOCATION

Genetic locus: ZFP36 (human) mapping to 19q13.2.

PRODUCT

TTP (h2): 293T Lysate represents a lysate of human TTP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

TTP (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TTP antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.