

TTP (H-120): sc-14030

BACKGROUND

Tristetraprolin (TTP), also known as Nup475 and TIS11, is a zinc-binding protein encoded by the immediate-early response gene, Zfp36. 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 .

CHROMOSOMAL LOCATION

Genetic locus: ZFP36 (human) mapping to 19q13.2; Zfp36 (mouse) mapping to 7 A3.

SOURCE

TTP (H-120) is a rabbit polyclonal antibody raised against amino acids 166-285 mapping near the C-terminus of TTP of human origin.

PRODUCT

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

APPLICATIONS

TTP (H-120) is recommended for detection of TTP 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 TTP siRNA (h): sc-36760, TTP siRNA (m): sc-36761, TTP shRNA Plasmid (h): sc-36760-SH, TTP shRNA Plasmid (m): sc-36761-SH, TTP shRNA (h) Lentiviral Particles: sc-36760-V and TTP shRNA (m) Lentiviral Particles: sc-36761-V.

Molecular Weight of TTP: 44 kDa.

Positive Controls: RAW 309 Cr.1 cell lysate: sc-3814, RAW 309 Cr.1 + LPS cell lysate: sc-24770 or TTP (h): 293T Lysate: sc-178098.

STORAGE

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

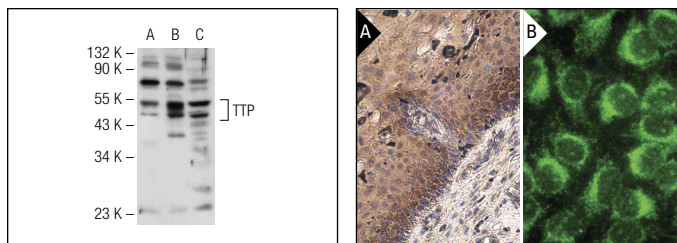
PROTOCOLS

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

RESEARCH USE

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

DATA



TTP (H-120): sc-14030. Western blot analysis of TTP expression in non-transfected 293T: sc-117752 (A), human TTP transfected 293T: sc-178098 (B) and RAW 309 Cr.1 (C) whole cell lysates.

TTP (H-120): sc-14030. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing cytoplasmic staining of squamous epithelial cells (A). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

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- Ruggiero, T., et al. 2009. LPS induces KH-type splicing regulatory protein-dependent processing of microRNA-155 precursors in macrophages. *FASEB J.* 23: 2898-2908.
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- Kang, J.G., et al. 2011. Zinc finger protein tristetraprolin interacts with CCL3 mRNA and regulates tissue inflammation. *J. Immunol.* 187: 2696-2701.
- Kim, C.W., et al. 2012. Ectopic over-expression of tristetraprolin in human cancer cells promotes biogenesis of let-7 by down-regulation of Lin28. *Nucleic Acids Res.* 40: 3856-3869.
- Van Tubergen, E.A., et al. 2013. Inactivation or loss of TTP promotes invasion in head and neck cancer via transcript stabilization and secretion of MMP9, MMP2, and IL-6. *Clin. Cancer Res.* 19: 1169-1179.



Try **TTP (A-8): sc-374305** or **TTP (H-12): sc-398904**, our highly recommended monoclonal alternatives to TTP (H-120). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TTP (A-8): sc-374305**.