

# TTP (A-8): sc-374305

## 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- $\alpha$  (TNF- $\alpha$ ), suggesting that TTP may function to negatively regulate the expression of TNF- $\alpha$ .

## CHROMOSOMAL LOCATION

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

## SOURCE

TTP (A-8) is a mouse monoclonal antibody raised against amino acids 166-285 mapping near the C-terminus of TTP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TTP (A-8) is available conjugated to agarose (sc-374305 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374305 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374305 PE), fluorescein (sc-374305 FITC), Alexa Fluor<sup>®</sup> 488 (sc-374305 AF488), Alexa Fluor<sup>®</sup> 546 (sc-374305 AF546), Alexa Fluor<sup>®</sup> 594 (sc-374305 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-374305 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-374305 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-374305 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TTP (A-8) is recommended for detection of TTP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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.

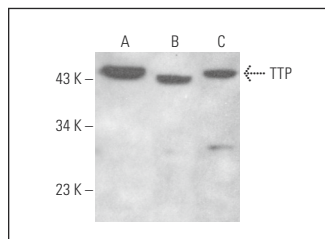
Molecular Weight of TTP: 44 kDa.

Positive Controls: RAW 309 Cr.1 cell lysate: sc-3814, K-562 whole cell lysate: sc-2203 or A-431 whole cell lysate: sc-2201.

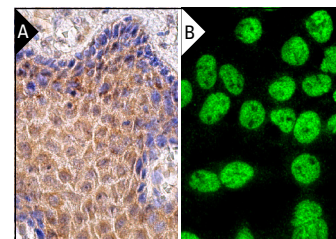
## STORAGE

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

## DATA



TTP (A-8): sc-374305. Western blot analysis of TTP expression in RAW 309 Cr.1 (A), K-562 (B) and A-431 (C) whole cell lysates.



TTP (A-8): sc-374305. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing cytoplasmic staining of squamous epithelial cells (A). Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

- Infante, T., et al. 2015. Polycomb YY1 is a critical interface between epigenetic code and miRNA machinery after exposure to hypoxia in malignancy. *Biochim. Biophys. Acta* 1853: 975-986.
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- Zhang, L., et al. 2019. Metformin reduced NLRP3 inflammasome activity in Ox-LDL stimulated macrophages through adenosine monophosphate activated protein kinase and protein phosphatase 2A. *Eur. J. Pharmacol.* 852: 99-106.
- Bah, I., et al. 2020. HuR promotes miRNA-mediated upregulation of NF- $\kappa$ B protein expression in MDSCs during murine sepsis. *Mol. Immunol.* 123: 97-105.
- Lv, P., et al. 2021. SM22 $\alpha$  loss contributes to apoptosis of vascular smooth muscle cells via macrophage-derived circRasGEF1B. *Oxid. Med. Cell. Longev.* 2021: 5564884.
- Hou, Y., et al. 2021. YTHDC1-mediated augmentation of miR-30d in repressing pancreatic tumorigenesis via attenuation of RUNX1-induced transcriptional activation of Warburg effect. *Cell Death Differ.* 28: 3105-3124.
- Guo, H., et al. 2022. ZFP36 protects against oxygen-glucose deprivation/reoxygenation-induced mitochondrial fragmentation and neuronal apoptosis through inhibiting NOX4-DRP1 pathway. *Brain Res. Bull.* 179: 57-67.
- Du, L., et al. 2022. SUMOylation inhibition enhances dexamethasone sensitivity in multiple myeloma. *J. Exp. Clin. Cancer Res.* 41: 8.
- Tian, G.X., et al. 2022. Propionic acid regulates immune tolerant properties in B cells. *J. Cell. Mol. Med.* 26: 2766-2776.

## RESEARCH USE

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