

# TNF $\alpha$ -IP 1 (F-4): sc-515765

## BACKGROUND

TNF $\alpha$ -IP 1 (tumor necrosis factor,  $\alpha$ -induced protein 1, endothelial), also known as B12, B61, EDP1 or TNFAIP1, is a BTB/POZ domain-containing protein that belongs to the KCTD10/KCTD13/TNFAIP1 family. TNF $\alpha$ -IP 1 contains one BTB/POZ motif, which is known to mediate homomeric and heteromeric POZ-POZ interactions and is common to transcriptional regulators involved in chromatin modeling. The expression of TNF $\alpha$ -IP 1 can be induced by IL-6 (interleukin-6) and by TNF $\alpha$  in the umbilical vein of endothelial cells. TNF $\alpha$ -IP 1 may be involved in DNA repair, DNA synthesis, cell apoptosis and human diseases. TNF $\alpha$ -IP 1 is suggested to play a role in the process of cancer and in the innate immunity against the hepatitis B virus.

## CHROMOSOMAL LOCATION

Genetic locus: TNFAIP1 (human) mapping to 17q11.2.

## SOURCE

TNF $\alpha$ -IP 1 (F-4) is a mouse monoclonal antibody raised against amino acids 253-316 mapping at the C-terminus of TNF $\alpha$ -IP 1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TNF $\alpha$ -IP 1 (F-4) is available conjugated to agarose (sc-515765 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515765 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515765 PE), fluorescein (sc-515765 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515765 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515765 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515765 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515765 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515765 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515765 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

TNF $\alpha$ -IP 1 (F-4) is recommended for detection of TNF $\alpha$ -IP 1 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TNF $\alpha$ -IP 1 siRNA (h): sc-76696, TNF $\alpha$ -IP 1 shRNA Plasmid (h): sc-76696-SH and TNF $\alpha$ -IP 1 shRNA (h) Lentiviral Particles: sc-76696-V.

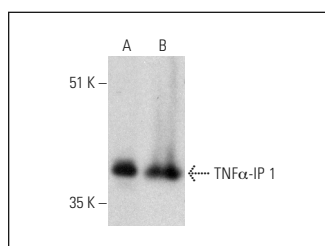
Molecular Weight of TNF $\alpha$ -IP 1: 36 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357 or HeLa + TNF  $\alpha$  cell lysate: sc-2228.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



TNF $\alpha$ -IP 1 (F-4): sc-515765. Western blot analysis of TNF $\alpha$ -IP 1 expression in ARPE-19 (A) and HeLa + TNF $\alpha$  (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Kato, K., et al. 2020. A novel missense variant in CUL3 shows altered binding ability to BTB-adaptor proteins leading to diverse phenotypes of CUL3-related disorders. *J. Hum. Genet.* E-published.
2. Xiao, Y., et al. 2021. TNFAIP1 is upregulated in APP/PS1 mice and promotes apoptosis in SH-SY5Y cells by binding to Rho B. *J. Mol. Neurosci.* 71: 1221-1233.
3. Tang, X., et al. 2021. The role of TNF- $\alpha$  induced protein 1 in the activation of pro-apoptotic proteins. *Hum. Cell* 34: 1123-1129.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.