

T6BP (H-6): sc-393143

BACKGROUND

Tumor necrosis factor receptor (TNFR)-associated factors (TRAFs) are a family of proteins that are downstream signal transducers of the TNFR superfamily. The T6BP (also designated T6BP and TXBP151) gene encodes a protein, which functions as a Tax1 (human T-cell leukemia virus type I) binding protein 1 and a TRAF6-interacting protein. T6BP interacts with the N-terminal ring finger and zinc finger domains of TRAF6 through its coiled-coil region. IL-1 induces the TRAF6-T6BP complex depending on the presence of the IL-1 receptor-associated kinase (IRAK). Therefore, TRAF6 exists in two different complexes, TRAF6-IRAK or TRAF6-T6BP after IL-1 stimulation. However, T6BP does not play a direct role in the activation of I κ B kinases or Jun N-terminal kinase. T6BP also binds to T-cell leukemia virus type-I Tax protein. In NIH/3T3 cells, T6BP can inhibit apoptosis induced by TNF, which in turns causes proteolysis of the T6BP protein. In addition, T6BP can interact with A20, which is a Cys2/Cys2 zinc finger protein induced by a variety of inflammatory stimuli, to mediate the anti-apoptotic activity of A20.

REFERENCES

1. Rothe, M., et al. 1994. A novel family of putative signal transducers associated with the cytoplasmic domain of the 75 kDa tumor necrosis factor receptor. *Cell* 78: 681-692.
2. Hu, H.M., et al. 1994. A novel RING finger protein interacts with the cytoplasmic domain of CD40. *J. Biol. Chem.* 269: 30069-30072.
3. Cheng, G., et al. 1995. Involvement of CRAF1, a relative of TRAF, in CD40 signaling. *Science* 267: 1494-1498.
4. De Valck, D., et al. 1999. The zinc finger protein A20 interacts with a novel anti-apoptotic protein which is cleaved by specific caspases. *Oncogene* 18: 4182-4190.

CHROMOSOMAL LOCATION

Genetic locus: TAX1BP1 (human) mapping to 7p15.2; Tax1bp1 (mouse) mapping to 6 B3.

SOURCE

T6BP (H-6) is a mouse monoclonal antibody raised against amino acids 387-471 mapping within an internal region of T6BP of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

T6BP (H-6) is available conjugated to agarose (sc-393143 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393143 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393143 PE), fluorescein (sc-393143 FITC), Alexa Fluor[®] 488 (sc-393143 AF488), Alexa Fluor[®] 546 (sc-393143 AF546), Alexa Fluor[®] 594 (sc-393143 AF594) or Alexa Fluor[®] 647 (sc-393143 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393143 AF680) or Alexa Fluor[®] 790 (sc-393143 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

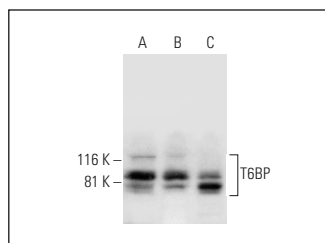
T6BP (H-6) is recommended for detection of T6BP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for T6BP siRNA (h): sc-106831, T6BP siRNA (m): sc-154029, T6BP shRNA Plasmid (h): sc-106831-SH, T6BP shRNA Plasmid (m): sc-154029-SH, T6BP shRNA (h) Lentiviral Particles: sc-106831-V and T6BP shRNA (m) Lentiviral Particles: sc-154029-V.

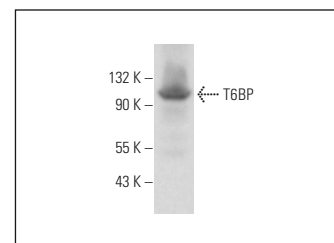
Molecular Weight of T6BP: 86 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Raji whole cell lysate: sc-364236.

DATA



T6BP (H-6): sc-393143. Western blot analysis of T6BP expression in HeLa (A), Raji (B) and A-431 (C) whole cell lysates.



T6BP (H-6): sc-393143. Western blot analysis of T6BP expression in 3T3-L1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yao, D., et al. 2018. O-linked β -N-acetylglucosamine modification of A20 enhances the inhibition of NF κ B (nuclear factor- κ B) activation and elicits vascular protection after acute endoluminal arterial injury. *Arterioscler. Thromb. Vasc. Biol.* 38: 1309-1320.
2. Mohamud, Y., et al. 2021. Autophagy receptor protein Tax1-binding protein 1/TRAF6-binding protein is a cellular substrate of enteroviral proteinase. *Front. Microbiol.* 12: 647410.
3. Goldsmith, J., et al. 2022. Brain-derived autophagosome profiling reveals the engulfment of nucleoid-enriched mitochondrial fragments by basal autophagy in neurons. *Neuron* 110: 967-976.e8.

STORAGE

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

RESEARCH USE 1

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