

# TRAF4 (43): sc-136107

## BACKGROUND

The tumor necrosis factor family (TNF) receptor superfamily is composed of several type I integral membrane glycoproteins that exhibit homology in their cysteine-rich extracellular domains. Members of this family include TNF-R1, TNF-RII and CD40. Ligands for these receptors can be small, secreted proteins such as TNF or type II integral membrane proteins as is the case for the CD40 ligand, CD40L. While the signal transduction mechanism of the TNF receptor superfamily is poorly understood, activation of TNF-R or CD40 has been shown to induce the nuclear translocation of NFκB. Members of the TRAF (TNF receptor-associated factor) family have been implicated in this process. Four members have thus far been described and are designated TRAF1, TRAF2, TRAF3 (variously referred to as CRAF1, LAP1 or CD40bp) and TRAF4. TRAF4, originally termed CART1, is specifically expressed in breast carcinomas, and is localized to the nucleus in such tissues.

## REFERENCES

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. *Cell* 76: 959-962.
2. Cleveland, J.L. and Ihle, J.N. 1995. Contenders in FAS-L/TNF death signaling. *Cell* 81: 479-482.
3. Rothe, M., et al. 1995. TRAF2-mediated activation of NFκB by the TNF receptor 2 and CD40. *Science* 269: 1424-1427.
4. Regnier, C.H., et al. 1995. Presence of a new conserved domain in CART1, a novel member of the tumor necrosis factor receptor-associated protein family, which is expressed in breast carcinoma. *J. Biol. Chem.* 270: 25715-25721.
5. Tomasetto, C., et al. 1995. Identification of four novel human genes amplified and overexpressed in breast carcinoma and localized to the q11-q21.3 region of chromosome 17. *Genomics* 28: 367-376.
6. Baker, S.J. and Reddy, E.P. 1996. Transducers of life and death: TNF receptor superfamily and associated proteins. *Oncogene* 12: 1-9.
7. McLellan, A.D., et al. 1996. Human dendritic cells activate T lymphocytes via a CD40: CD40 ligand-dependent pathway. *Eur. J. Immunol.* 26: 1204-1210.
8. Cheng, G. and Baltimore, D. 1996. TANK, a co-inducer with TRAF2 of TNF- and CD 40L-mediated NFκB activation. *Genes Dev.* 10: 963-973.

## CHROMOSOMAL LOCATION

Genetic locus: TRAF4 (human) mapping to 17q11.2; Traf4 (mouse) mapping to 11 B5.

## SOURCE

TRAF4 (43) is a mouse monoclonal antibody raised against amino acids 2-160 of TRAF4 of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>1</sub> in 500 µl of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## APPLICATIONS

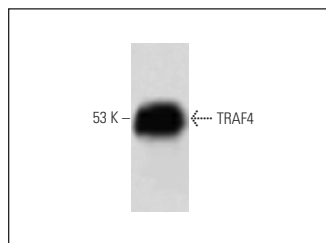
TRAF4 (43) is recommended for detection of TRAF4 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TRAF4 siRNA (h): sc-36713, TRAF4 siRNA (m): sc-36714, TRAF4 shRNA Plasmid (h): sc-36713-SH, TRAF4 shRNA Plasmid (m): sc-36714-SH, TRAF4 shRNA (h) Lentiviral Particles: sc-36713-V and TRAF4 shRNA (m) Lentiviral Particles: sc-36714-V.

Molecular Weight of TRAF4: 53 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

## DATA



TRAF4 (43): sc-136107. Western blot analysis of TRAF4 expression in Jurkat whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Ma, C., et al. 2017. NDR1 protein kinase promotes IL-17- and TNF-α-mediated inflammation by competitively binding TRAF3. *EMBO Rep.* 18: 586-602.
2. Kim, D., et al. 2022. Inhibition of ChREBP ubiquitination via the ROS/Akt-dependent downregulation of Smurf2 contributes to lysophosphatidic acid-induced fibrosis in renal mesangial cells. *J. Biomed. Sci.* 29: 31.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

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