SANTA CRUZ BIOTECHNOLOGY, INC.

# TRAF1 (H-132): sc-1831

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Tumor necrosis factor (TNF)-activated cell signaling is mediated primarily through the TNF receptor 1 (TNF-R1) and, to a lesser extent, TNF-R2. Both TNF receptors are members of the expanding TNF receptor superfamily which includes the Fas antigen and CD40. Potential insight into an understanding of TNF receptor-mediated signaling was provided by the identification of two related proteins, TRAF1 and TRAF2 (for TNF receptor-associated factors 1 and 2, respectively). Both function to form heterodimeric complexes and associate with the cytoplasmic domain of TNF-R2. A third member of this protein family, alternatively designated CD40 bp, CRAF1, LAP1 or TRAF3, has been identified and shown to associate with the cytoplasmic domain of CD40. The similarity between a specific region of TRAF3 with regions of TRAF1 and TRAF2 define a "TRAF-C" domain that is necessary and sufficient for CD40 binding and homodimerization.

## CHROMOSOMAL LOCATION

Genetic locus: TRAF1 (human) mapping to 9q33.2; Traf1 (mouse) mapping to 2 B.

## SOURCE

TRAF1 (H-132) is a rabbit polyclonal antibody raised against amino acids 53-185 of TRAF1 of human origin.

## PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-1831 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

TRAF1 (H-132) is recommended for detection of TRAF1 of mouse, rat and human 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)], 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 TRAF1 siRNA (h): sc-29508, TRAF1 siRNA (m): sc-36710, TRAF1 shRNA Plasmid (h): sc-29508-SH, TRAF1 shRNA Plasmid (m): sc-36710-SH, TRAF1 shRNA (h) Lentiviral Particles: sc-29508-V and TRAF1 shRNA (m) Lentiviral Particles: sc-36710-V.

Molecular Weight of TRAF1: 52 kDa.

Positive Controls: TRAF1 (m): 293T Lysate: sc-127696, KNRK whole cell lysate: sc-2214 or NIH/3T3 whole cell lysate: sc-2210.

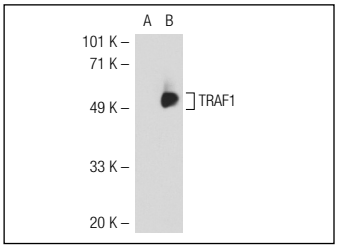
## STORAGE

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

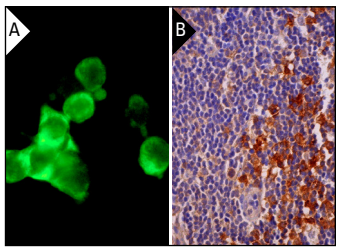
## RESEARCH USE

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

## DATA




TRAF1 (H-132): sc-1831. Western blot analysis of TRAF1 expression in non-transfected: sc-117752 (**A**) and mouse TRAF1 transfected: sc-127696 (**B**) 293T whole cell lysates.




TRAF1 (H-132): sc-1831. Immunofluorescence staining of methanol-fixed IB4-E25.22 cells showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membane staining of cells in germinal centers and cells in non-germinal centers (**B**).

## SELECT PRODUCT CITATIONS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2. Pandey, M.K., et al. 2007. Gambogic acid, a novel ligand for transferrin receptor, potentiates TNF-induced apoptosis through modulation of the nuclear factor κB signaling pathway. Blood 110: 3517-3525.
3. Tamassia, N., et al. 2007. The MyD88-independent pathway is not mobilized in human neutrophils stimulated via TLR4. J. Immunol. 178: 7344-7356.
4. Takada, Y., et al. 2008. Flavopiridol suppresses tumor necrosis factor-induced activation of activator protein-1, c-Jun N-terminal kinase, p38 mitogen-activated protein kinase (MAPK), p44/p42 MAPK, and Akt, inhibits expression of antiapoptotic gene products, and enhances apoptosis through cytochrome c release and caspase activation in human myeloid cells. Mol. Pharmacol. 73: 1549-1557.
5. Du, Q., et al. 2009. Wnt/β-catenin signaling regulates cytokine-induced human inducible nitric oxide synthase expression by inhibiting nuclear factor-κB activation in cancer cells. Cancer Res. 69: 3764-3771.
6. Sung, B., et al. 2010. Noscapine, a benzylisoquinoline alkaloid, sensitizes leukemic cells to chemotherapeutic agents and cytokines by modulating the NFκB signaling pathway. Cancer Res. 70: 3259-3268.
7. Prasad, S., et al. 2010. Crotepoxide chemosensitizes tumor cells through inhibition of expression of proliferation, invasion, and angiogenic proteins linked to proinflammatory pathway. J. Biol. Chem. 285: 26987-26997.