SANTA CRUZ BIOTECHNOLOGY, INC.

TRAF1 (G-20): sc-983

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.

REFERENCES

1. Tartaglia, L.A., et al. 1992. Two TNF receptors. Immunol. Today 13: 151-153.
2. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. Cell 76: 959-962.

CHROMOSOMAL LOCATION

Genetic locus: TRAF1 (human) mapping to 9q33.2.

SOURCE

TRAF1 (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus 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.

Blocking peptide available for competition studies, sc-983 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-983 PE, 100 tests.

APPLICATIONS

TRAF1 (G-20) is recommended for detection of TRAF1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). TRAF1 (G-20) is also recommended for detection of TRAF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRAF1 siRNA (h): sc-29508, TRAF1 shRNA Plasmid (h): sc-29508-SH and TRAF1 shRNA (h) Lentiviral Particles: sc-29508-V.

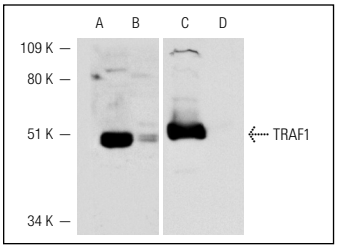
Molecular Weight of TRAF1: 52 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181 or WI-38 whole cell lysate: sc-364260.

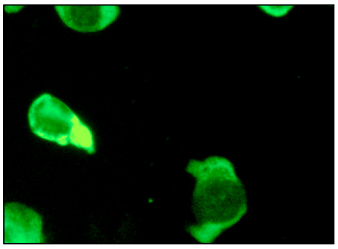
STORAGE

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

DATA



Western blot analysis of TRAF1 expression in TRAF1-transfected (**A,C**) or non-transfected (**B,D**) IB4 cells. Antibodies tested include TRAF1 (H-132): sc-1831 (**A,B**) and TRAF1 (G-20): sc-983 (**C,D**).



TRAF1 (G-20): sc-983. Immunofluorescence staining of methanol-fixed IB4-E25.22 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Qin, J.Z., et al. 2001. Role of NFκB activity in apoptotic response of keratinocytes mediated by interferon-γ, tumor necrosis factor-α, and tumor-necrosis-factor-related apoptosis-inducing ligand. J. Invest. Dermatol. 117: 898-907.
2. Chaturvedi, V., et al. 2001. Abnormal NFκB signaling pathway with enhanced susceptibility to apoptosis in immortalized keratinocytes. J. Dermatol. Sci. 26: 67-78.
3. Deng, J., et al. 2002. β-catenin interacts with and inhibits NFκB in human colon and breast cancer. Cancer Cell 2: 323-334.
4. Karimi, K., et al. 2006. Toll-like receptor-4 mediates cigarette smoke-induced cytokine production by human macrophages. Respir. Res. 7: 66.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.