

TRAF1 (N-19): sc-874



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 CD40bp, 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 (mouse) mapping to 2 B.

SOURCE

TRAF1 (N-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of TRAF1 of mouse 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-874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRAF1 (N-19) is recommended for detection of TRAF1 of mouse and rat 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 (m): sc-36710, TRAF1 shRNA Plasmid (m): sc-36710-SH and TRAF1 shRNA (m) Lentiviral Particles: sc-36710-V.

Molecular Weight of TRAF1: 52 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NIH/3T3 whole cell lysate: sc-2210 or IB4 whole cell lysate: sc-364780.

RESEARCH USE

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

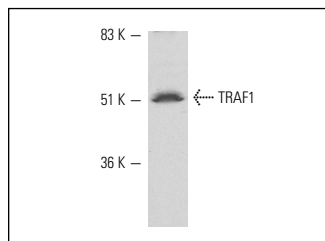
PROTOCOLS

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

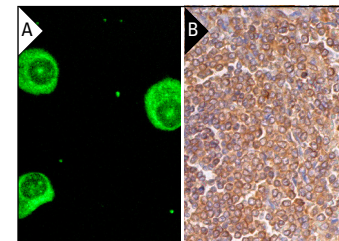
STORAGE

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

DATA



TRAF1 (N-19): sc-874. Western blot analysis of TRAF1 expression in KNRK whole cell lysate.



TRAF1 (N-19): sc-874. Immunofluorescence staining of methanol-fixed KNRK cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp (B).

SELECT PRODUCT CITATIONS

- Devergne, O., et al. 1996. Association of TRAF1, TRAF2, and TRAF3 with an Epstein-Barr virus LMP1 domain important for B-lymphocyte transformation: role in NFκB activation. *Mol. Cell. Biol.* 16: 7098-7108.
- Pryhuber, G., et al. 2005. Acute tumor necrosis factor α -induced liver injury in the absence of tumor necrosis factor receptor-associated factor 1 gene expression. *Am. J. Pathol.* 166: 1637-1645.
- Xie, P., et al. 2006. Cooperation between TNF receptor-associated factors 1 and 2 in CD40 signaling. *J. Immunol.* 176: 5388-5400.
- Wang, S., et al. 2006. Development and validation of vectors containing multiple siRNA expression cassettes for maximizing the efficiency of gene silencing. *BMC Biotechnol.* 6: 50.
- Peters, A.L., et al. 2008. A novel polymorphism of the human CD40 receptor with enhanced function. *Blood* 112: 1863-1871.
- Kim, C., et al. 2008. The kinase p38 α serves cell type-specific inflammatory functions in skin injury and coordinates pro- and anti-inflammatory gene expression. *Nat. Immunol.* 9: 1019-1027.
- Hostager, B.S., et al. 2010. HOIL-1L interacting protein (HOIP) as an NFκB regulating component of the CD40 signaling complex. *PLoS ONE* 5: e11380.
- Pérez-Chacón, G., et al. 2012. TNFR-associated factor 2 deficiency in B lymphocytes predisposes to chronic lymphocytic leukemia/small lymphocytic lymphoma in mice. *J. Immunol.* 189: 1053-1061.



Try **TRAF1 (H-3): sc-6253** or **TRAF1 (E-12): sc-271683**, our highly recommended monoclonal alternatives to TRAF1 (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TRAF1 (H-3): sc-6253**.