

# TRAF1 (170-295): sc-4219 WB

## 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. and Goeddel, D.V. 1992. Two TNF receptors. *Immunol. Today* 13: 151-153.
2. Smith, C.A., Farrah, T., and Goodwin, R.G. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
3. Rothe, M., Wong, S.C., Henzel, W.J., and Goeddel, D.V. 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.
4. Hu, H.M., O'Rourke, K., Boguski, M.S., and Dixit, V.M. 1994. A novel RING finger protein interacts with the cytoplasmic domain of CD40. *J. Biol. Chem.* 269: 30069-30072.
5. Cheng, G., Cleary, A.M., Ye, Z.S., Hong, D.I., Lederman, S., and Baltimore, D. 1995. Involvement of CRAF1, a relative of TRAF, in CD40 signaling. *Science* 267: 1494-1498.
6. Mosiaios, G., Birkenbach, M., Yalamanchili, R., VanArsdale, T., Ware, C., and Kieff, E. 1995. The Epstein-Barr virus transforming protein LMP1 engages signaling proteins for the tumor necrosis factor receptor family. *Cell* 80: 389-399.
7. Hsu, H., Xiong, J., and Goeddel, D.V. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NF $\kappa$ B activation. *Cell* 81: 495-504.

## SOURCE

TRAF1 (170-295) is expressed in *E. coli* as a 41 kDa tagged fusion protein corresponding to amino acids 173-295 mapping to a central region of TRAF1 protein of human origin.

## PRODUCT

TRAF1 (170-295) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10  $\mu$ g in 0.1 ml SDS-PAGE loading buffer.

## STORAGE

Store at -20° C; stable for one year from the date of shipment.

## APPLICATIONS

TRAF1 (170-295) is suitable as a Western blotting control for sc-1830 and sc-6253.

## RESEARCH USE

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