

TRAF4 (D-2): sc-390212



The Power to Question

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-RI, 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 NF κ B. 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

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2. Rothe, M., et al. 1995. TRAF2-mediated activation of NF κ B by the TNF receptor 2 and CD40. *Science* 269: 1424-1427.
3. Cleveland, J.L., et al. 1995. Contenders in Fas γ /TNF death signaling. *Cell* 81: 479-482.
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: 367-382.
6. Baker, S.J., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

TRAF4 (D-2) is a mouse monoclonal antibody raised against a peptide mapping at the N-terminus of TRAF4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390212 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TRAF4 (D-2) is recommended for detection of TRAF4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRAF4 (D-2) is also recommended for detection of TRAF4 in additional species, including canine and bovine.

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.

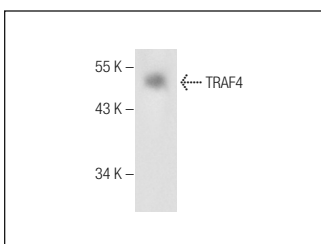
Molecular Weight of TRAF4: 53 kDa.

Positive Controls: SK-BR-3 nuclear extract: sc-2134, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



TRAF4 (D-2): sc-390212. Western blot analysis of TRAF4 expression in SK-BR-3 nuclear extract.

STORAGE

Store at 4 $^{\circ}$ 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.

PROTOCOLS

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