SANTA CRUZ BIOTECHNOLOGY, INC.

TRAF4 (H-72): sc-10776

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The tumor necrosis factor (TNF) receptor superfamily is composed of several type I integral membrane glycoproteins that exhibit homology in their cystine-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 have been shown to induce the nuclear translocation of NFκB. 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

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. Cell 76: 959-962.
2. Cleveland, J.L., et al. 1995. Contenders in FAS-L/TNF death signaling. Cell 81: 479-482.

CHROMOSOMAL LOCATION

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

SOURCE

TRAF4 (H-72) is a rabbit polyclonal antibody raised against amino acids 40-111 of TRAF4 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.

APPLICATIONS

TRAF4 (H-72) is recommended for detection of TRAF4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRAF4 (H-72) is also recommended for detection of TRAF4 in additional species, including bovine and canine.

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.

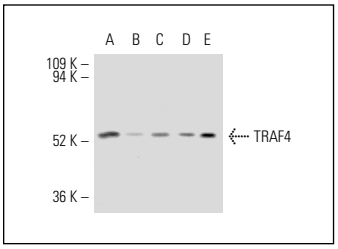
Molecular Weight of TRAF4: 53 kDa.

Positive Controls: TRAF4 (h): 293T Lysate: sc-173385, SK-BR-3 cell lysate: sc-2218 or HeLa whole cell lysate: sc-2200.

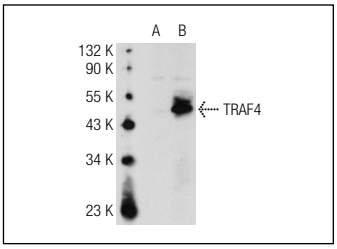
STORAGE

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

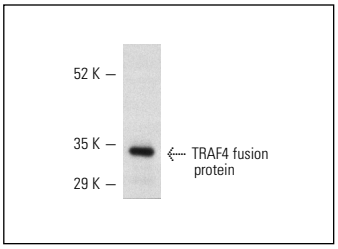
DATA



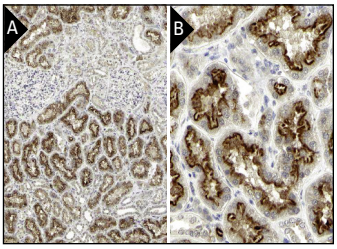
TRAF4 (H-72): sc-10776. Western blot analysis of TRAF4 expression in HeLa (**A**), A-431 (**B**) and SK-BR-3 (**C**) whole cell lysates and PMA-treated A-431 (**D**) and SK-BR-3 (**E**) nuclear extracts.



TRAF4 (H-72): sc-10776. Western blot analysis of TRAF4 expression in non-transfected 293T: sc-117752 (**A**), human TRAF4 transfected 293T: sc-173385 (**B**) whole cell lysates.



TRAF4 (H-72): sc-10776. Western blot analysis of human recombinant TRAF4 fusion protein.



TRAF4 (H-72): sc-10776. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in tubuli (low and high magnification). Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Chen, B.B., et al. 2013. A combinatorial F box protein directed pathway controls TRAF adaptor stability to regulate inflammation. Nat. Immunol. 14: 470-479.
2. Zhang, L., et al. 2013. TRAF4 promotes TGF-β receptor signaling and drives breast cancer metastasis. Mol. Cell 51: 559-572.

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.