SANTA CRUZ BIOTECHNOLOGY, INC.

TRAF2 (D-12): sc-365287

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: TRAF2 (human) mapping to 9q34.3; Traf2 (mouse) mapping to 2 A3.

SOURCE

TRAF2 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 at the N-terminus of TRAF2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 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-365287 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TRAF2 (D-12) is recommended for detection of TRAF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for TRAF2 siRNA (h): sc-29509, TRAF2 siRNA (m): sc-36711, TRAF2 shRNA Plasmid (h): sc-29509-SH, TRAF2 shRNA Plasmid (m): sc-36711-SH, TRAF2 shRNA (h) Lentiviral Particles: sc-29509-V and TRAF2 shRNA (m) Lentiviral Particles: sc-36711-V.

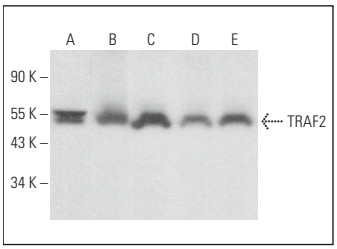
Molecular Weight of TRAF2: 50 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, WEHI-231 whole cell lysate: sc-2213 or HeLa whole cell lysate: sc-2200.

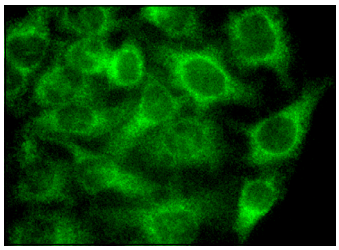
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



TRAF2 (D-12): sc-365287. Western blot analysis of TRAF2 expression in WEHI-231 (**A**), Caki-1 (**B**), HeLa (**C**), ACHN (**D**) and NIH/3T3 (**E**) whole cell lysates.



TRAF2 (D-12): sc-365287. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Blakely, C.M., et al. 2015. NFκB-activating complex engaged in response to EGFR oncogene inhibition drives tumor cell survival and residual disease in lung cancer. Cell Rep. 11: 98-110.
2. Sharma, A., et al. 2020. Influenza A virus nucleoprotein activates the JNK stress-signaling pathway for viral replication by sequestering host Filamin A protein. Front. Microbiol. 11: 581867.

STORAGE

Store at 4° 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.

CONJUGATES

See **TRAF2 (F-2): sc-136999** for TRAF2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.