

TRAF2 (H-10): sc-7346

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.
3. Rothe, M., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

TRAF2 (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 475-501 at the C-terminus of TRAF2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRAF2 (H-10) is available conjugated to agarose (sc-7346 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7346 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7346 PE), fluorescein (sc-7346 FITC), Alexa Fluor® 488 (sc-7346 AF488), Alexa Fluor® 546 (sc-7346 AF546), Alexa Fluor® 594 (sc-7346 AF594) or Alexa Fluor® 647 (sc-7346 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7346 AF680) or Alexa Fluor® 790 (sc-7346 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-7346 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

TRAF2 (H-10) is recommended for detection of TRAF2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

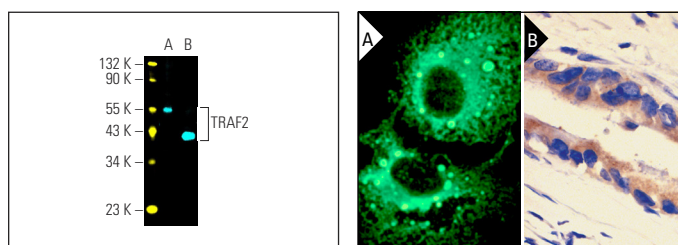
TRAF2 (H-10) is also recommended for detection of TRAF2 in additional species, including canine and bovine.

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: human liver extract: sc-363766, A-431 whole cell lysate: sc-2201 or A549 cell lysate: sc-2413.

DATA



TRAF2 (H-10) Alexa Fluor® 647: sc-7346 AF647. Direct fluorescent western blot analysis of TRAF2 expression in A549 whole cell lysate (A) and human liver tissue extract (B). Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 488: sc-516790.

TRAF2 (H-10): sc-7346. Immunofluorescence staining of methanol-fixed TRAF2-transfected COS cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tumor showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

1. Kim, J.W., et al. 2000. Activation of death-inducing signaling complex (DISC) by pro-apoptotic C-terminal fragment of RIP. *Oncogene* 19: 4491-4499.
2. Wertz, I.E., et al. 2015. Phosphorylation and linear ubiquitin direct A20 inhibition of inflammation. *Nature* 528: 370-375.
3. Lin, C.C., et al. 2016. TNF- α -induced cPLA₂ expression via NADPH oxidase/reactive oxygen species-dependent NF κ B cascade on human pulmonary alveolar epithelial cells. *Front. Pharmacol.* 7: 447.
4. Yang, C.Y., et al. 2018. Induction of DUSP14 ubiquitination by PRMT5-mediated arginine methylation. *FASEB J.* 32: fj201800244RR.

RESEARCH USE

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