SANTA CRUZ BIOTECHNOLOGY, INC.

TRAF1 (H-3): sc-6253

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.

CHROMOSOMAL LOCATION

Genetic locus: TRAF1 (human) mapping to 9q33.2; Traf1 (mouse) mapping to 2 B.

SOURCE

TRAF1 (H-3) is a mouse monoclonal antibody raised against amino acids 173-295 mapping to a central region of TRAF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRAF1 (H-3) is available conjugated to agarose (sc-6253 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6253 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-6253 PE), fluorescein (sc-6253 FITC), Alexa Fluor® 488 (sc-6253 AF488), Alexa Fluor® 546 (sc-6253 AF546), Alexa Fluor® 594 (sc-6253 AF594) or Alexa Fluor® 647 (sc-6253 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-6253 AF680) or Alexa Fluor® 790 (sc-6253 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TRAF1 (H-3) is recommended for detection of TRAF1 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) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for TRAF1 siRNA (h): sc-29508, TRAF1 siRNA (m): sc-36710, TRAF1 shRNA Plasmid (h): sc-29508-SH, TRAF1 shRNA Plasmid (m): sc-36710-SH, TRAF1 shRNA (h) Lentiviral Particles: sc-29508-V and TRAF1 shRNA (m) Lentiviral Particles: sc-36710-V.

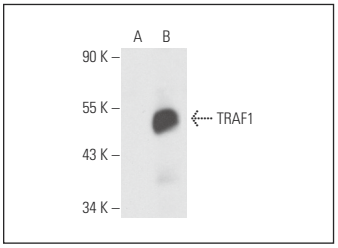
Molecular Weight of TRAF1: 52 kDa.

Positive Controls: TRAF1 (m): 293T Lysate: sc-127696, NIH/3T3 whole cell lysate: sc-2210 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

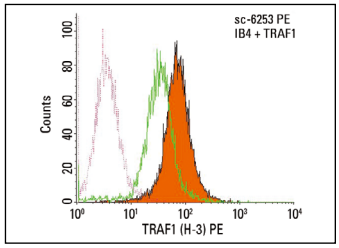
STORAGE

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

DATA



TRAF1 (H-3): sc-6253. Western blot analysis of TRAF1 expression in non-transfected: sc-117752 (**A**) and mouse TRAF1 transfected: sc-127696 (**B**) 293T whole cell lysates.



TRAF1 (H-3) PE: sc-6253 PE. Intracellular FCM analysis of methanol permeabilized control (green line histogram) and TRAF1 transfected (solid orange histogram) IB4 cells. Dotted pink histogram represents control mouse IgG_1: sc-2866.

SELECT PRODUCT CITATIONS

1. Hinz, M., et al. 2001. Constitutive NFκB maintains high expression of a characteristic gene network, including CD40, CD86, and a set of antiapoptotic genes in Hodgkin/Reed-Sternberg cells. Blood 97: 2798-2807.
2. Guasparri, I., et al. 2006. The KSHV oncoprotein vFLIP contains a TRAF-interacting motif and requires TRAF2 and TRAF3 for signalling. EMBO Rep. 7: 114-119.
3. Rodig, S.J., et al. 2007. Expression of TRAF1 and nuclear c-Rel distinguishes primary mediastinal large cell lymphoma from other types of diffuse large B-cell lymphoma. Am. J. Surg. Pathol. 31: 106-112.
4. Ogura, H., et al. 2008. Ectodomain shedding of TNF receptor 1 induced by protein synthesis inhibitors regulates TNF-α-mediated activation of NFκB and caspase-8. Exp. Cell Res. 314: 1406-1414.
5. Benner, M.F., et al. 2009. Diagnostic and prognostic evaluation of phenotypic markers TRAF1, MUM1, BCL2 and CD15 in cutaneous CD30-positive lymphoproliferative disorders. Br. J. Dermatol. 161: 121-127.
6. Kondratiev, S., et al. 2011. Aberrant expression of the dendritic cell marker TNFAIP2 by the malignant cells of Hodgkin lymphoma and primary mediastinal large B-cell lymphoma distinguishes these tumor types from morphologically and phenotypically similar lymphomas. Am. J. Surg. Pathol. 35: 1531-1539.
7. Kastamoulas, M., et al. 2013. Cytokine effects on cell survival and death of A549 lung carcinoma cells. Cytokine 61: 816-825.
8. Wang, F., et al. 2014. The expression level of TRAF1 in human gastric mucosa is related to virulence genotypes of *Helicobacter pylori*. Scand. J. Gastroenterol. 49: 925-932.

RESEARCH USE

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