SANTA CRUZ BIOTECHNOLOGY, INC.

TRAF6 (D-10): sc-8409

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tumor necrosis factor receptor-associated factor 6 (TRAF6) regulates adaptive immunity, innate immunity and bone metabolism. TRAF6 is a ubiquitin (Ub) ligase that mediates the activation of protein kinases, such as transforming growth factor β-activated kinase (TAK1) and IκB kinase (IKK), by catalyzing the formation of a unique polyubiquitin chain linked through Lys 63 of Ub. TRAF6 is essential for activating NFκB signaling pathway in response to interleukin-1 and Toll-like receptor ligands. The coiled-coil domain of TRAF6 is essential for its auto-ubiquitination and activating NFκB signaling pathway. TRAF6 interacts with various protein kinases including IRAK1/IRAK, SRC and PKCζ, which provides a link between distinct signaling pathways.

CHROMOSOMAL LOCATION

Genetic locus: TRAF6 (human) mapping to 11p12; Traf6 (mouse) mapping to 2 E2.

SOURCE

TRAF6 (D-10) is a mouse monoclonal antibody raised against amino acids 1-274 mapping at the N-terminus of TRAF6 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.

TRAF6 (D-10) is available conjugated to agarose (sc-8409 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8409 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8409 PE), fluorescein (sc-8409 FITC), Alexa Fluor® 488 (sc-8409 AF488), Alexa Fluor® 546 (sc-8409 AF546), Alexa Fluor® 594 (sc-8409 AF594) or Alexa Fluor® 647 (sc-8409 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8409 AF680) or Alexa Fluor® 790 (sc-8409 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TRAF6 (D-10) is recommended for detection of TRAF6 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRAF6 siRNA (h): sc-36717, TRAF6 siRNA (m): sc-36718, TRAF6 siRNA (r): sc-156004, TRAF6 shRNA Plasmid (h): sc-36717-SH, TRAF6 shRNA Plasmid (m): sc-36718-SH, TRAF6 shRNA Plasmid (r): sc-156004-SH, TRAF6 shRNA (h) Lentiviral Particles: sc-36717-V, TRAF6 shRNA (m) Lentiviral Particles: sc-36718-V and TRAF6 shRNA (r) Lentiviral Particles: sc-156004-V.

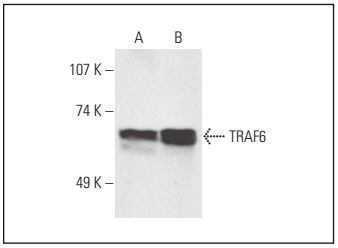
Molecular Weight of TRAF6: 60 kDa.

Positive Controls: WEHI-3 cell lysate: sc-3815, HeLa whole cell lysate: sc-2200 or WEHI-231 whole cell lysate: sc-2213.

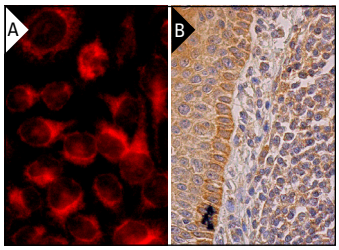
STORAGE

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

DATA



TRAF6 (D-10): sc-8409. Western blot analysis of TRAF6 expression in HeLa (**A**) and WEHI-3 (**B**) whole cell lysates.



TRAF6 (D-10): sc-8409. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal center, cells in non-germinal center and squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

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2. Huang, Y., et al. 2012. UXT-V1 facilitates the formation of MAVS antiviral signalosome on mitochondria. J. Immunol. 188: 358-366.
3. Cheng, H.S., et al. 2013. MicroRNA-146 represses endothelial activation by inhibiting pro-inflammatory pathways. EMBO Mol. Med. 5: 949-966.
4. Feng, H., et al. 2014. EGFR phosphorylation of DCBLD2 recruits TRAF6 and stimulates AKT-promoted tumorigenesis. J. Clin. Invest. 124: 3741-3756.
5. Jiao, H., et al. 2015. Chaperone-like protein p32 regulates ULK1 stability and autophagy. Cell Death Differ. 22: 1812-1823.
6. Stucky, A., et al. 2016. Prenatal cocaine exposure upregulates BDNF-TrkB signaling. PLoS ONE 11: e0160585.
7. Wu, H., et al. 2017. TRAF6 expression is associated with poorer prognosis and high recurrence in urothelial bladder cancer. Oncol. Lett. 14: 2432-2438.
8. Luong, P., et al. 2018. INAVA-ARNO complexes bridge mucosal barrier function with inflammatory signaling. Elife 7: e38539.
9. Dou, Y., et al. 2019. Identification of the E3 ligase TRIM29 as a critical checkpoint regulator of NK cell functions. J. Immunol. 203: 873-880.
10. Balka, K.R., et al. 2020. TBK1 and IKKε act redundantly to mediate STING-induced NFκB responses in myeloid cells. Cell Rep. 31: 107492.
11. Mulas, F., et al. 2021. The deubiquitinase OTUB1 augments NFκB-dependent immune responses in dendritic cells in infection and inflammation by stabilizing UBC13. Cell. Mol. Immunol. 18: 1512-1527.

RESEARCH USE

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