

TRAF5 (E-5): sc-74503

BACKGROUND

TRAF5 is a member of the TNF receptor associated factor (TRAF) protein family. TRAF proteins are associated with, and mediate signal transduction from members of the TNF receptor superfamily. TRAF5 is one of the components of a complex associated with the CD40 cytoplasmic domain, which mediates TNF induced NF κ B activation and protection from cell death. TRAF5 influences signaling events by other receptors including CD27, CD30 and lymphotoxin- β receptor. TRAF5 plays a role in osteoclastogenesis. Two alternatively spliced transcript variants encoding the same protein have been reported. The tumor necrosis factor (TNF) receptor superfamily is composed of several type I integral membrane glycoproteins that exhibit homology in their cysteine-rich extracellular domains.

REFERENCES

1. Nakano, H., et al. 1996. TRAF5, an activator of NF κ B and putative signal transducer for the lymphotoxin- β receptor. *J. Biol. Chem.* 271: 14661-14664.
2. Ishida, T.K., et al. 1996. TRAF5, a novel tumor necrosis factor receptor-associated factor family protein, mediates CD40 signaling. *Proc. Natl. Acad. Sci. USA* 93: 9437-9442.
3. Nakano, H., et al. 1997. Human TNF receptor-associated factor 5 (TRAF5): cDNA cloning, expression and assignment of the TRAF5 gene to chromosome 1q32. *Genomics* 42: 26-32.
4. Mizushima, S., et al. 1998. Cloning and characterization of a cDNA encoding the human homolog of tumor necrosis factor receptor-associated factor 5 (TRAF5). *Gene* 207: 135-140.
5. Nakano, H., et al. 1999. Targeted disruption of TRAF5 gene causes defects in CD40- and CD27-mediated lymphocyte activation. *Proc. Natl. Acad. Sci. USA* 96: 9803-9808.
6. Tada, K., et al. 2001. Critical roles of TRAF2 and TRAF5 in tumor necrosis factor-induced NF κ B activation and protection from cell death. *J. Biol. Chem.* 276: 36530-36534.
7. Horie, R., et al. 2002. Cytoplasmic aggregation of TRAF2 and TRAF5 proteins in the Hodgkin-Reed-Sternberg cells. *Am. J. Pathol.* 160: 1647-1654.

CHROMOSOMAL LOCATION

Genetic locus: TRAF5 (human) mapping to 1q32.2; Traf5 (mouse) mapping to 1 H6.

SOURCE

TRAF5 (E-5) is a mouse monoclonal antibody raised against amino acids 1-257 of TRAF5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TRAF5 (E-5) is recommended for detection of TRAF5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 TRAF5 siRNA (h): sc-36715, TRAF5 siRNA (m): sc-36716, TRAF5 shRNA Plasmid (h): sc-36715-SH, TRAF5 shRNA Plasmid (m): sc-36716-SH, TRAF5 shRNA (h) Lentiviral Particles: sc-36715-V and TRAF5 shRNA (m) Lentiviral Particles: sc-36716-V.

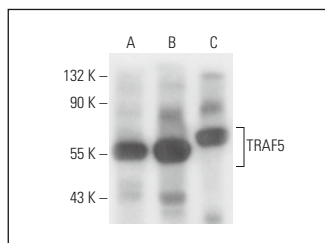
Molecular Weight of TRAF5: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or CTLL-2 cell lysate: sc-2242.

RECOMMENDED SUPPORT REAGENTS

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



TRAF5 (E-5): sc-74503. Western blot analysis of TRAF5 expression in HeLa (A), Jurkat (B) and CTLL-2 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhong, B., et al. 2012. Negative regulation of IL-17-mediated signaling and inflammation by the ubiquitin-specific protease USP25. *Nat. Immunol.* 13: 1110-1117.
2. 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.

RESEARCH USE

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