SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM (h): 293T Lysate: sc-114237

BACKGROUND

TRIM (T cell receptor interacting molecule) is a novel transmembrane adaptor protein which associates and comodulates with the TCR-CD3ζ complex in human T lymphocytes and T cell lines. TRIM is a type III transmembrane protein that contains an eight amino acid extracellular domain and an intracellular domain that contains four potential phosphorylation sites and eight tyrosine residues, at least three of which may be involved in SH2-mediated interactions with other signaling proteins. The human TRIM gene maps to chromosome 3q13.13, which is a susceptibility locus for rheumatoid arthritis and is in proximity to the CD28, CD86 and CD80 genes, all of which encode T cell costimulatory molecules. TRIM is expressed in T cells and natural killer cells, but not in B cells or monocytic cells. In T cells, TRIM localizes to the cell membrane and associates with CD3ζ and CD3ε.

REFERENCES

1. Bruyns, E., Marie-Cardine, A., Kirchgessner, H., Sagolla, K., Shevchenko, A., Mann, M., Autschbach, F., Bensussan, A., Meuer, S. and Schraven, B. 1998. T cell receptor (TCR) interacting molecule (TRIM), a novel disulfide-linked dimer associated with the TCR-CD3ζ complex, recruits intracellular signaling proteins to the plasma membrane. J. Exp. Med. 188: 561-575.
2. Kersh, G.J., Kersh, E.N., Fremont, D.H. and Allen, P.M. 1998. High- and low-potency ligands with similar affinities for the TCR: the importance of kinetics in TCR signaling. Immunity 9: 817-826.
3. Hubener, C., Mincheva, A., Lichter, P., Schraven, B. and Bruyns, E. 2000. Genomic organization and chromosomal localization of the human gene encoding the T cell receptor-interacting molecule (TRIM). Immunogenetics 51: 154-158.
4. Huynh, T., Wurch, A., Bruyns, E., Korinek, V., Schraven, B. and Eichmann, K. 2001. Developmentally regulated expression of the transmembrane adaptor protein TRIM in fetal and adult T cells. Scand. J. Immunol. 54: 146-154.
5. Kirchgessner, H., Dietrich, J., Scherer, J., Isomäki, P., Korinek, V., Hilgert, I., Bruyns, E., Leo, A., Cope, A.P. and Schraven, B. 2001. The transmembrane adaptor protein TRIM regulates T cell receptor (TCR) expression and TCR-mediated signaling via an association with the TCR ζ chain. J. Exp. Med. 193: 1269-1284.

CHROMOSOMAL LOCATION

Genetic locus: TRAT1 (human) mapping to 3q13.13.

PRODUCT

TRIM (h): 293T Lysate represents a lysate of human TRIM transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

TRIM (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TRIM antibodies. Recommended use: 10-20 µl per lane.

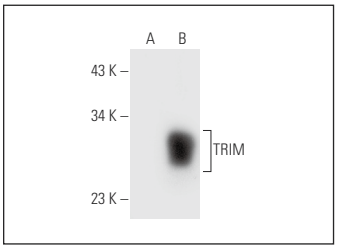
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TRIM (D-2): sc-365105 is recommended as a positive control antibody for Western Blot analysis of enhanced human TRIM expression in TRIM transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



TRIM (D-2): sc-365105. Western blot analysis of TRIM expression in non-transfected: sc-117752 (**A**) and human TRIM transfected: sc-114237 (**B**) 293T whole cell lysates.

RESEARCH USE

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